

A large, dark-colored solar collector, shaped like a flower with multiple petals, is the central focus. It is positioned in an open area, possibly a field or a construction site, with a modern glass-walled building in the background. The sun is low on the horizon, creating a bright lens flare effect that illuminates the petals of the solar collector. The sky is a mix of blue and orange. In the foreground, there is a wooden post-and-rail fence. To the left, a white building with a sign is partially visible. In the background, a colorful mural or banner is stretched across a fence. The overall scene is a blend of nature-inspired technology and modern architecture.

Smartflower

The world's first all-in-one solar system

2024

SmartFlower Solar

Make your solar statement today.





Product Overview



Why Smartflower? Key USPs



- The only bi-axial solar tracking system that mimics heliotropism found in some flowers (>160 patents)

- Iconic design, mimicking nature, inspiring all who see it, a powerful symbol of sustainability



- Smart Use: All-in-one solution, factory assembled & tested, installed in a few hours, plug & play

- Smart Cleaning – brushes between the 12 petals perform automatic cleaning 2X/day



- Smart Power – tracking the sun at 90° in two axes yields 40% more power/sqm from its 18sqm of high-efficiency monocrystalline PERC solar panels

- Smart Cooling – naturally rear-ventilated, contributes up to 10% more efficiency



- Smart Safety – constant wind monitoring, closes automatically when windy, reopens when safe

- Robust, reliable, premium product, Austrian/German/American engineering, Made in Austria

- On the market >10 years, >2500 installed, world-wide service network, financially sound parent

Your Technically Advanced Green Calling Card

A Fully Integrated, All-In-One Solar System That Can Live Anywhere.



SmartTracking

Smartflower's modular panels autonomously follow the sun so they're always at the optimal angle, generating 40% more energy production than traditional solar.



Smart Cleaning

Smartflower automatically cleans itself every time it folds and unfolds. Brushes on the back of each panel remove any contaminants, leading to increased power production.



Smart Safety

Smartflower is weatherproof and continuously monitors wind speeds, automatically folding itself into a secure position to prevent system damage.



Smart System

The integrated control panel automatically sends data on your energy use via the *Smartflower Monitor* mobile app, helping you decide on how better to use your electricity.



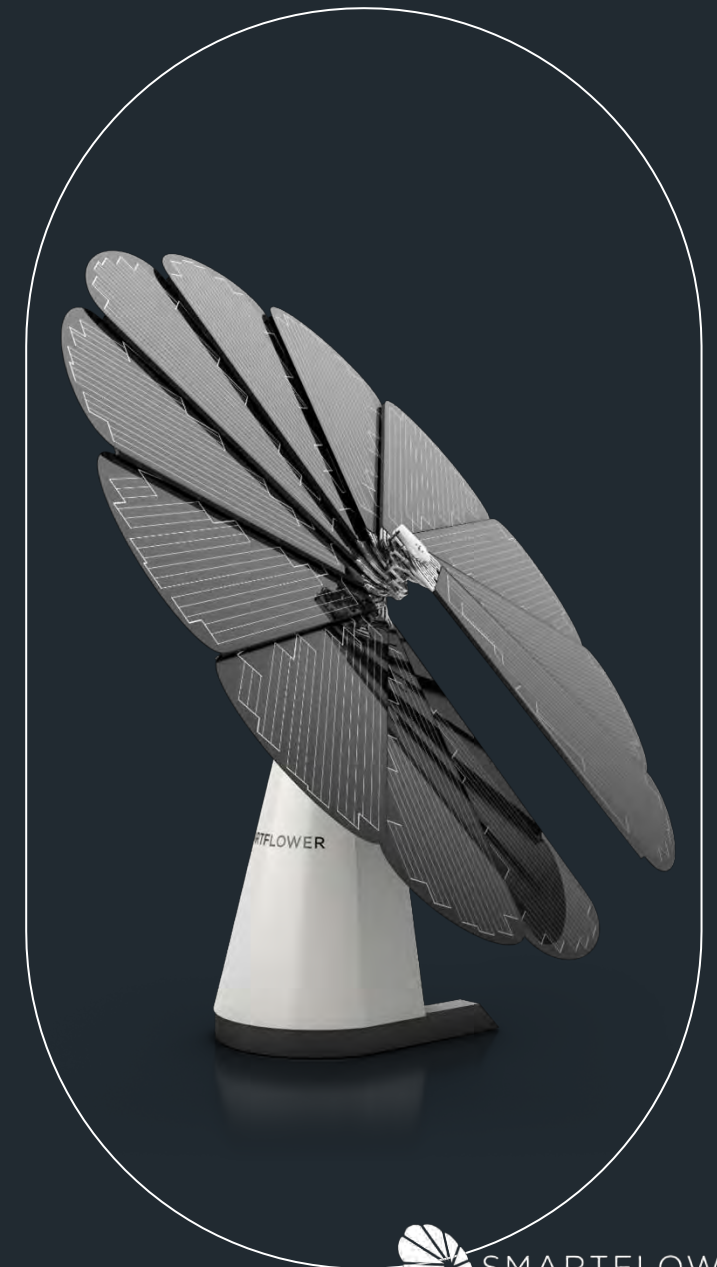
Smart Cooling

The system's solar modules are self-ventilated, which keeps the surface cooler and thus delivers more output when compared to traditional roof-mounted solar.



Smart Use

A fully integrated factory pre-packaged solar solution without the complex installation. Smartflower is also portable so that you can move it anywhere.



Sales Targets

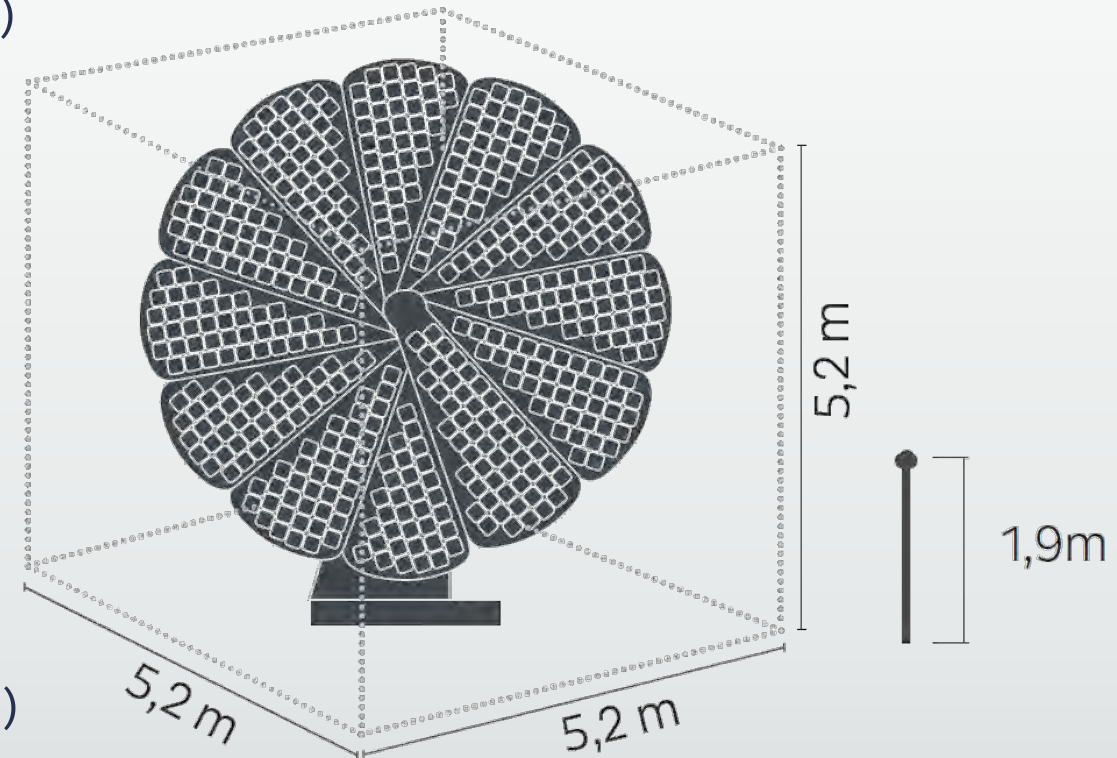
- Commercial & industrial, financial institutions
- Colleges, universities and other educational opportunities
- Resorts and hospitality locations
- Telecommunications
- Museums, zoos & botanical gardens
- Transportation (car dealerships, EV charging stations, electric bikes, golf carts, etc.)
- Architects & landscape designers
- Municipal & government programs (airports, mass transit, public space, libraries, etc.)
- Utilities
- Sporting venues & stadiums (soccer, football, auto racing, golfing, baseball, etc.)
- Agricultural (vineyards, micro-breweries, farms, orchards, ranches)
- Demand side energy management
- Charging stations (mobile phones, computers, iPads, etc.)
- Residential applications

Marketing Initiatives

- Monthly partner newsletter: *Smartflower Showcase*
- Case studies and articles developed on existing installations
- Social media posts highlighting installations and dealers
 - Tag us on social media and we will share/boost your post!
 - All dealers are encouraged to share our posts and repost them
- Design support for custom graphics/collateral (ads, decals, banners, etc.)
- Marketing support for press releases and PR events
- Translations of Marketing materials planned

Smartflower: All-in-One Solar Solution

- Grid-connected, all-in-one solution (1 or 3 phase)
- Nominal output: 2.5 kWp (max array power)
- Yearly output with 2-axis tracking: 4.000-6.500 kWh, depending on location
- Operating area: 5.2 x 5.2 x 5.2 meters
- Operating temperature range: -20°C to +55°C
- System weight: 703kg
- Certification: UL, CE & IEC certified (modules CE)
- System warranty: 2 years (parts & labor)



Smartflower colors (automotive-grade powdercoat)

Standard colors



Porcelain (RAL9001)



Pearl (RAL9006)

Almost any custom color is available upon request for an additional cost (please supply [RAL code](#)).

Some popular ones:



Jungle | RAL6010



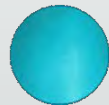
Lavender | E4-570M



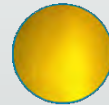
Ocean | RAL5007



Berry | E4-520M



Mermaid | E4-720M



Amber | E4-260M





Installations | GEN5

- Albania
- Austria
- Belgium
- Brazil
- Bulgaria
- Canada
- Chile
- Croatia
- Czechia
- Denmark
- Finland
- France
- Germany
- Ghana
- Greece
- Guatemala
- Hong Kong
- Ireland
- Italy
- Japan
- Korea
- Mexico
- Morocco
- Netherlands
- Norway
- Portugal
- Saudi Arabia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Taiwan
- Thailand
- Türkiye
- Ukraine
- United Arab Emirates
- United Kingdom
- UAE
- USA




















Certifications, Awards & Some Notable Clients

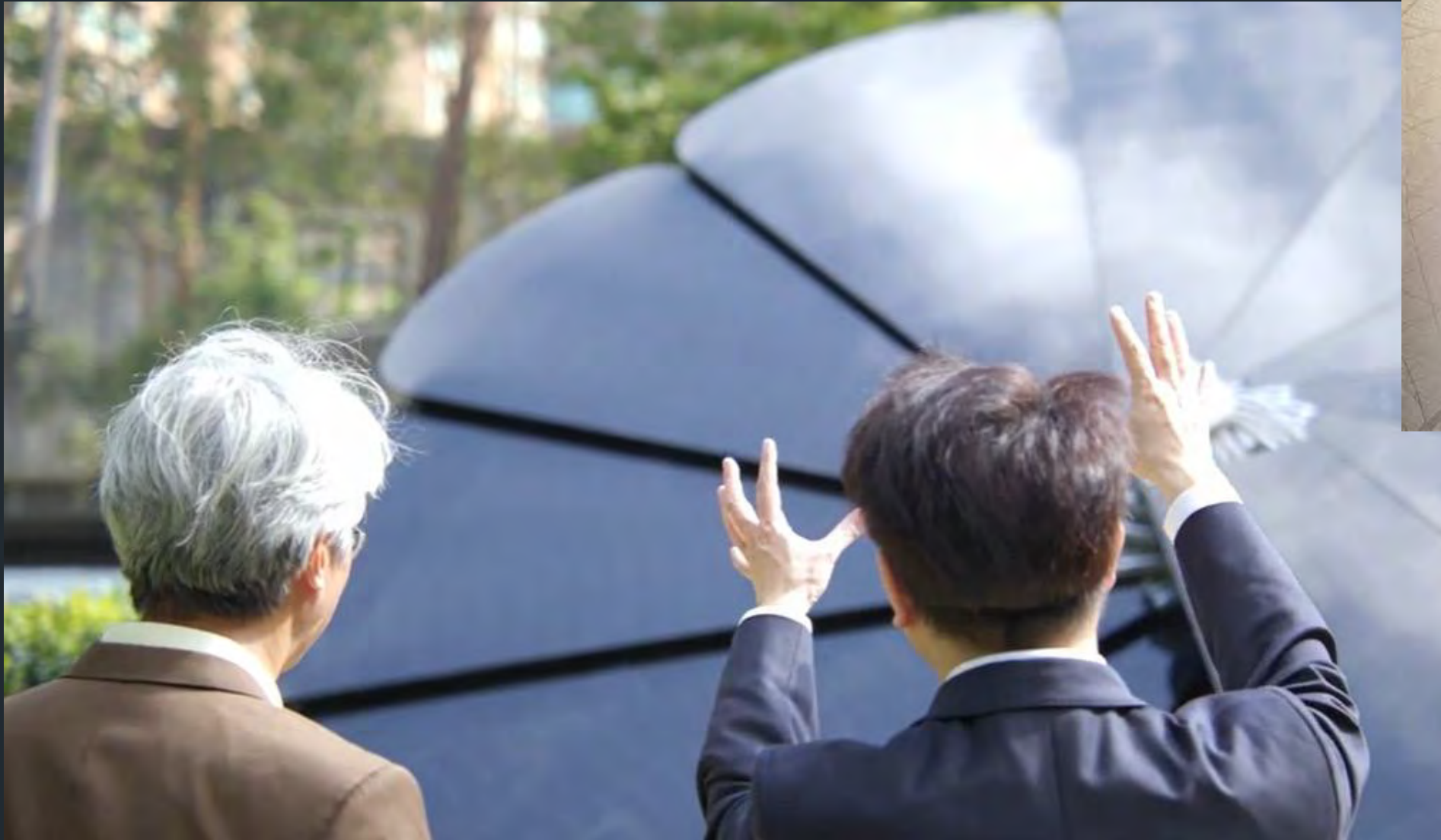
Our Certifications



Creative thinking gets noticed—our awards



Hong Kong Green Building Award 2023



As featured on
BBC StoryWorks,
video [here](#)



Branding potential - wraps



smartTown of East
Gwillimbury,
Canada



Vodafone
Spain



Enel
Chile



Cobb EMC
USA

- Sponsorships
 - Sponsors can pay to have their names/logos displayed on a wrap
 - Wrap can be redone periodically to allow for new sponsors
- Advertising
 - Advertisers can pay a fee to advertise their product, service or event on a wrap
 - Treat it like a billboard: You can charge a CPM (cost per mille/thousand impressions) for an ad on the Smartflower

Volkswagen Group



VW Group world HQ in
Wolfsburg, Germany.
Installed Sept 2023



ERNEUERBARE ENERGIE

Nachhaltige Zukunft blüht auf: Smartflower in der Autostadt

13.09.2023, 11:18

Anja-Carina Riechert



Ab sofort ist eine Smartflower in der Autostadt im Einsatz.

Foto: Autostadt GmbH / Christian Gräber

WOLFSBURG Die als Blume geformte Solaranlage ist am Gräsermeer zwischen Konzern-Forum und Hafenbecken positioniert.



Five recently installed Smartflower solar arrays help power the facility's employee services buildings, which are home to popular destinations like the uniform store, footwear store, credit union, clinic and pharmacy. The flowers also help power three EV charging stations.

"This is just one more way Toyota West Virginia is embracing alternative energy and reducing our ecological footprint here in the Mountain State," said David Rosier, Toyota West Virginia president. "Our environmental team is always working to make our plant more efficient and guiding our efforts to create a more sustainable future."



Installed September 2022

IVECO


Installed at IVECO in Madrid and Turin in 2018
plus added another in Turin in 2022.





Installed June 2023 at Vienna's most famous natural mineral thermal spa, a VAMED AG company.



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[News Centre Home](#) > [Planet](#)

PLANET | 10 AUG 2021

How the solar Smartflower makes electricity all day long

BY MATT WALL

Vodafone installed Smartflowers in the UK and Spain in 2021

SIEMENS



SIEMENS



Matthias Rebellius  · 2nd

Member of the Managing Board of Siemens AG and CEO Smart Infrastructure at Siemens

Zurich, Switzerland · [Contact info](#)



Siemens Infrastructure

169,272 followers
5mo · 



We proudly inaugurated our sustainable [#SiemensCampusZug](#) a few days ago. Sustainability is an integral part of [Siemens](#) – in our business as well as in our own operations. Out of the many features ensuring [#NetZero](#) operation of the building complex, we are particularly keen on the integration of [#solar](#) energy.

The 3,500 solar modules on the rooftops generate 1,300 MWh of [#renewable](#) electricity per year.

And kudos for the installation of a smart flower on our parking lot: a stunning [#PV](#) system in the shape of a flower. 🌻

The solar modules of the [Smartflower](#) follow the sun across the sky all day long. Like this, the installation covers the complete, average electricity demand of a Central European household.

Our campus in Switzerland is the place where technology for sustainable infrastructure becomes a reality and is also used right away. ❤️ [Matthias Rebellius](#)



You and 699 others

8 comments · 24 reposts



Like



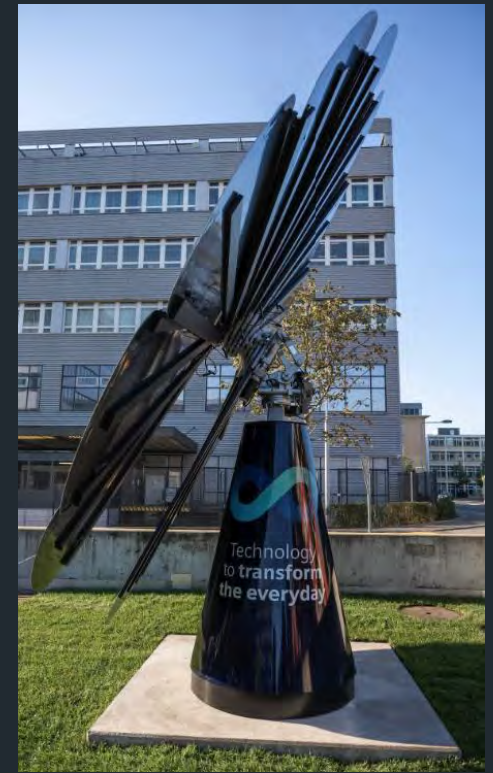
Comment



Repost



Send



Siemens Infrastructure

Author

4mo

169,272 followers

Thanks again, [Robert G. Sawyer](#) and [elentec GmbH](#) for setting up the wonderful [Smartflower](#) at our [#SiemensCampusZug](#). Our employees, customers, and management really like it a lot. 🙏

The same goes for the one at [Humber College](#) in Canada. Such a beautiful and smart solution. 🙏

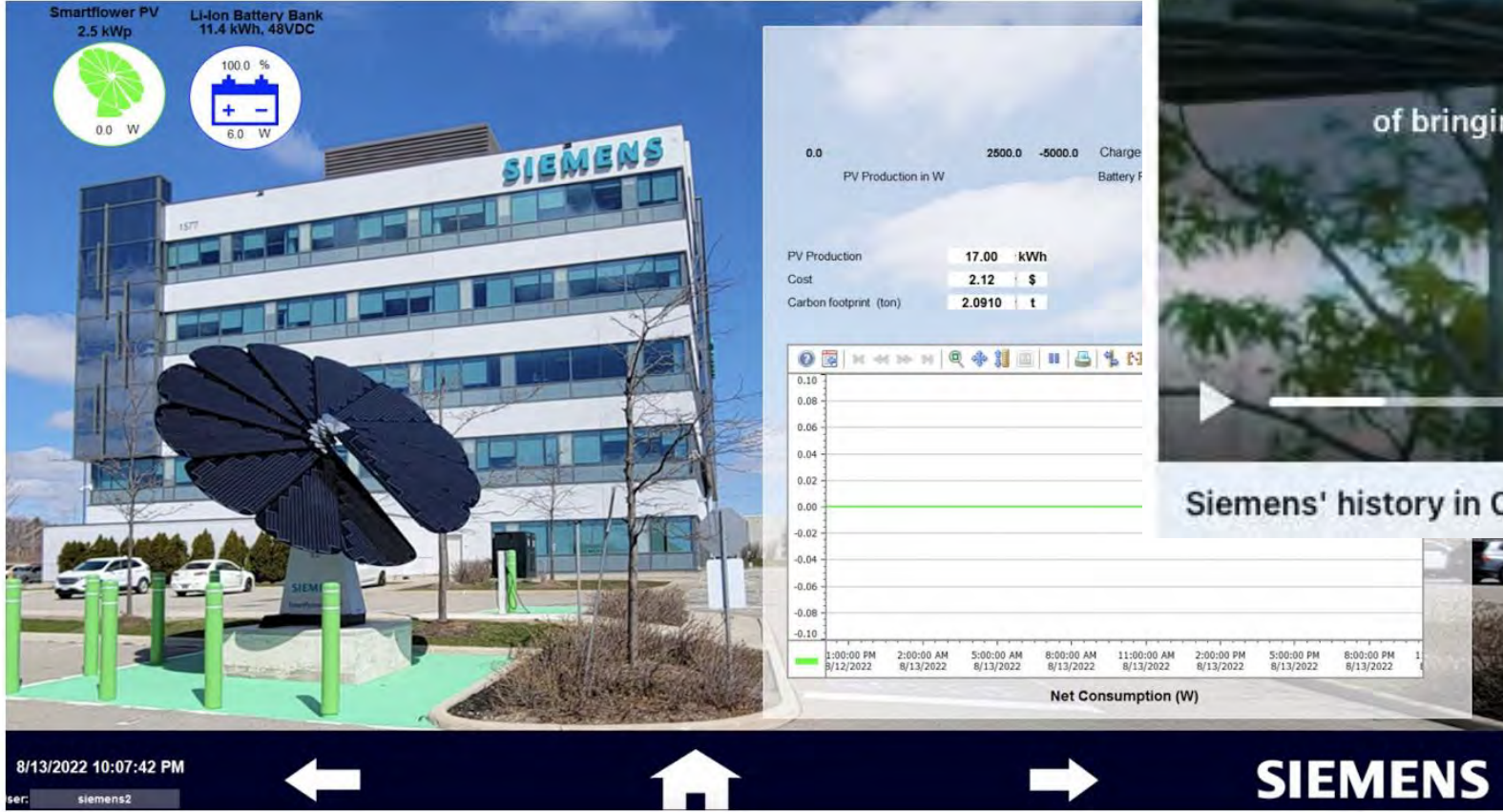

<https://appliedtechnology.humber.ca/news-and-events/news/the-smart-lab-blooms-at-north-campus.html>

September 22, 2022, Oakville, Ontario

Smartflower Microgrid Project enhances provincial curriculum resources and showcases Saskatchewan tech

Smartflower MG Version HMI Screens

Customizable Screenshots using HMI Software (SICAL)

Siemens
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7mo · 🌐

[Siemens Canada 110th anniversary video featuring Smartflower](#)

This year, Siemens Canada is celebrating its 110th anniversary of bringing innovation, technology and infrastructure to Canadians from coast to coast



Siemens' history in Canada





HUMBER COLLEGE AND SIEMENS CANADA OPEN THE SUSTAINABLE MICROGRID AND RENEWABLE TECHNOLOGY LAB (SMART LAB)

Lab addresses the energy industry skills gap by providing hands-on learning

March 30, 2023

Humber College and Siemens Canada



Humber College
16,7 k abonnés





The new state-of-the-art center is 100% powered by renewable energy and built on the sustainable principles that are in keeping with the company's global mission to use technology and efficient operations and practices. For example, the center is **powered in part by solar sunflowers** and the parking lot features a solar-powered roof to support electric vehicle charging stations. The center will house engineering offices, workshops and testing labs, and outside are tracks for testing turf, utility vehicles, tractors and construction equipment.

3 Smartflowers

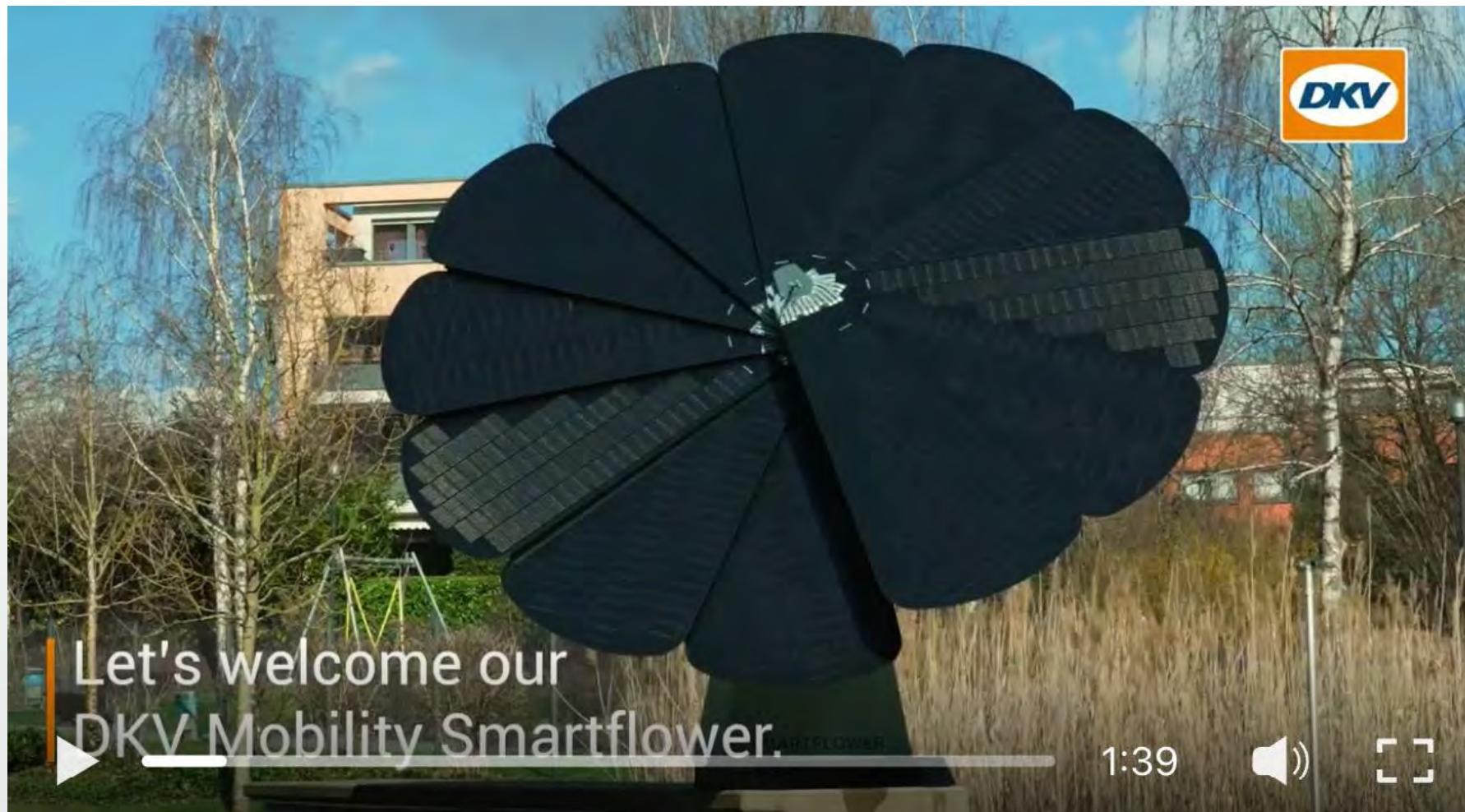


Kubota Announces Grand Opening of R&D Center

April 8, 2022 | Posted in [Manufacturer News](#)

Kubota opens new 280-acre North America R&D Center in Gainesville, Ga., spurring innovation and job growth.

Installed April 2022, Gainesville, Georgia, USA



DKV Mobility
You drive, we care.

Installed in March 2023 at DKV Mobility's headquarters in Ratingen, Germany. Watch DKV's video [here](#).



Roskilde Festival, July 2019

“As part of Carlsberg Group’s sustainability programme, Together Towards ZERO, we are targeting 100% use of renewable electricity by 2022 – a target we already meet in Western Europe today. Therefore, Tuborg in Denmark found it relevant to continue that journey with Roskilde Festival, who has been a close partner for many years and who is also committed to sustainability... we thought the Smartflower was a great way to highlight the importance of renewable electricity.”

— Christian Sveigaard, Head of Tuborg in Denmark.





Patricio Astolfi · 1st
Managing Director at Nestlé
1mo · Edited ·

En Nestlé apoyamos iniciativas de energías renovables. Nuestra sede en Antigua Guatemala da la bienvenida a los innovadores “smart flowers”.

A través de iniciativas como esta, en Nestlé cumplimos con nuestros compromisos de protección de los recursos naturales del planeta y, en esta oportunidad, con un doble objetivo, ya que estos paneles formaran parte del Centro Cultural Nestlé, próximo a inaugurarse. Alimentarán el 40% de la fuente de energía del lugar y, al mismo tiempo, serán un atractivo para los visitantes gracias a su llamativo diseño.



Smartflower installation team at Adidas HQ in Herzogenaurach, Germany, August 2019





Battery Tour
225 followers
1w · 🌐

+ Follow ...

Smartflower will be providing power to [AY Young](#)'s Battery Tour event happening September 21st in Times Square. This will be the first ever clean energy concert at Times Square! ...see more

FREE TO THE PUBLIC

BATTERY TOUR LIVE IN TIMES SQUARE

SEPTEMBER 21 - 1PM-3PM
DUFFY SQUARE, TIMES SQUARE, NYC



Smart heliotropic installation for optimum solar yield

MEINBERG

The Synchronization Experts.



Meinberg Funkuhren GmbH & Co KG., Bad Pyrmont, Germany, installed in 2022



Kahramaa Water Awareness Park

Doha, Qatar

Installed in 2016, upgraded in 2022.



Plugshare EV charger



Smartflower Japan



Gomunolnaki, a Japanese global trading company with R&D functions that specializes in supplying rubber/plastic goods to automotive, housing, home appliances, office infrastructure, and medical industries, installed a Smartflower at their headquarters in Nagoya, Japan, in March 2022.



Tsukuba Advanced Research Center, installed 2021

Taiwan Cement Company
DAKA Open Ecological Recycling Factory
(installed in 2020 - [video](#))



Korea East-West Power



새빛누리 공원

Installation photos, Korea East West Power, October 2023





 EDF ENR



Longtime partner EDF ENR in France (HQ Lyon) has installed 100s of Smartflowers.



First Smartflower in Ukraine, installed July 2022 in Ternopil by Smartflower dealer NRG.



Private customer in Germany added two Gen 5 Smartflowers in 2022 to his two Gen 2 Smartflowers from 2016.

Utility & power company customers worldwide

- Germany: EWE AG
- Switzerland: ENIWA, SI Nyon, Energie Kreuzlingen, BKW Energie AG
- France: Électricité de France (EDF ENR)
- USA: Cobb EMC ([video](#))
- Italy, Chile & Belgium: Enel Group
- Austria: Wien Energie, EVN, Energie Burgenland
- Spain: Iberdrola
- Korea: East-West Power (EWP)
- UAE: Dubai Electricity & Water Authority (DEWA)
- Qatar General Electricity & Water Corp. (Kahramaa)
- Albania: [Albanian Electric Power Corporation \(KESH\)](#) in Shkoder city center ([video](#))
- and many more!

"An architectural icon."

"We are happy with our Smartflower. It works really well and our visitors find it attractive. We have a lot of electric vehicles parked around the Smartflower, so it looks like a green efficient zone. I think Smartflower is a good option for companies, not just for energy production, but for the aesthetic impact and external benefits it brings. Our flower was installed around 4 years ago and is still an architectural icon for us."

— Sebastián Enrique Garcia Gallardo, Solar Project Engineer at Enel Green Power.



Trailer Options



- Eye-catching and attracts a lot of people
- Smartflower has a very strong impact when seen in-person
- Contact information can be put on the trailer itself for more free advertising
- Takes about 7 minutes to open/close: this time can be used to start conversations or answer questions

Smartflower EV Applications



Kohla-Strauss,
Austria



Town of East Gwillimbury,
Canada



Smartstation Concept,
Sweden



Austria

Smartflower Applications



Franklin Park
Zoo, USA



Vodafone España,
Spain



Belfast Harbour,
Northern Ireland



Florida State
University, USA



Private
Residence, USA





Residential customer in Germany

The [Rebelle Rally](#) is the first women's off-road navigation rally raid in the United States. Powered in part by Smartflower.



HOW WE CHARGED

**MOTORTREND
PERFORMANCE
VEHICLE OF THE YEAR**



[Tante Mia Tanzt Festival](#), powered (in part) by Smartflower, sponsored by German utility EWE in Oldenburg



Le Plateau de Bakish Resort in Lebanon, 16 Smartflowers installed in 2016



Le Plateau de Bakish Resort in Lebanon, 16 Smartflowers installed in 2016



Banco Davivienda, Colombia



Beautiful installation on a raised platform (deters vandalism)

What difficulties could you have on such installations?

- Access for technician
- Complicated repair process
- Wind sensor obstructed

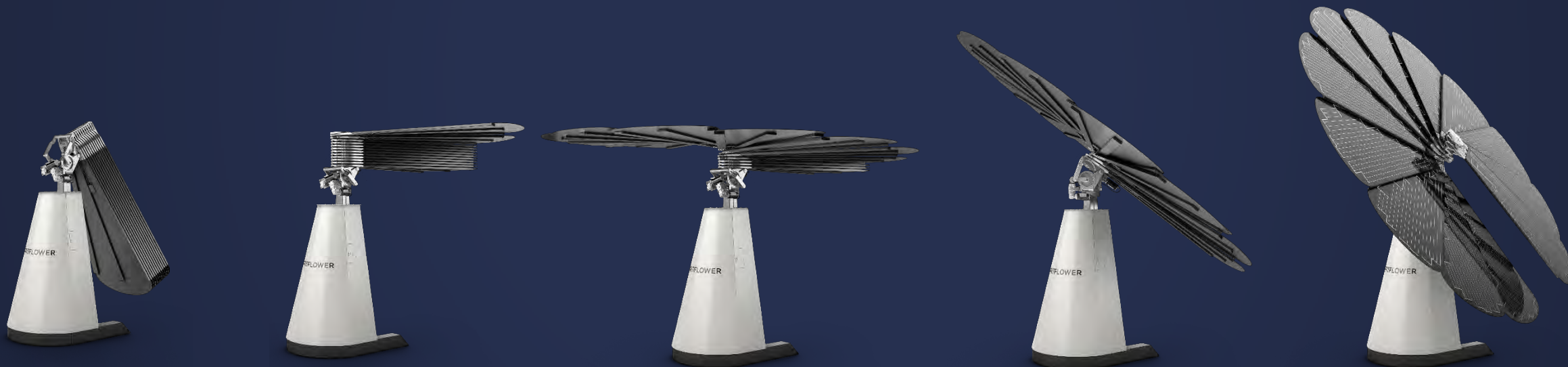




some examples of how NOT to do Smartflower installations...



Product Features



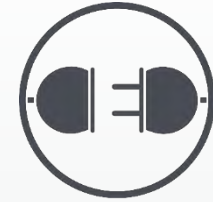
Product Features | Tracking



- **Smart Tracking:** Astronomically controlled, dual-axis sun tracking (GPS Coordinates, UTC Time)
- Tracks the sun from dawn to dusk ensuring that its solar panels are always at an optimal $\pm 90^\circ$ degree angle to the sun
- Precise tracking can increase productivity by as much as 40% over fixed tilt and single axis systems



Product Features | Smart Use & Mobility



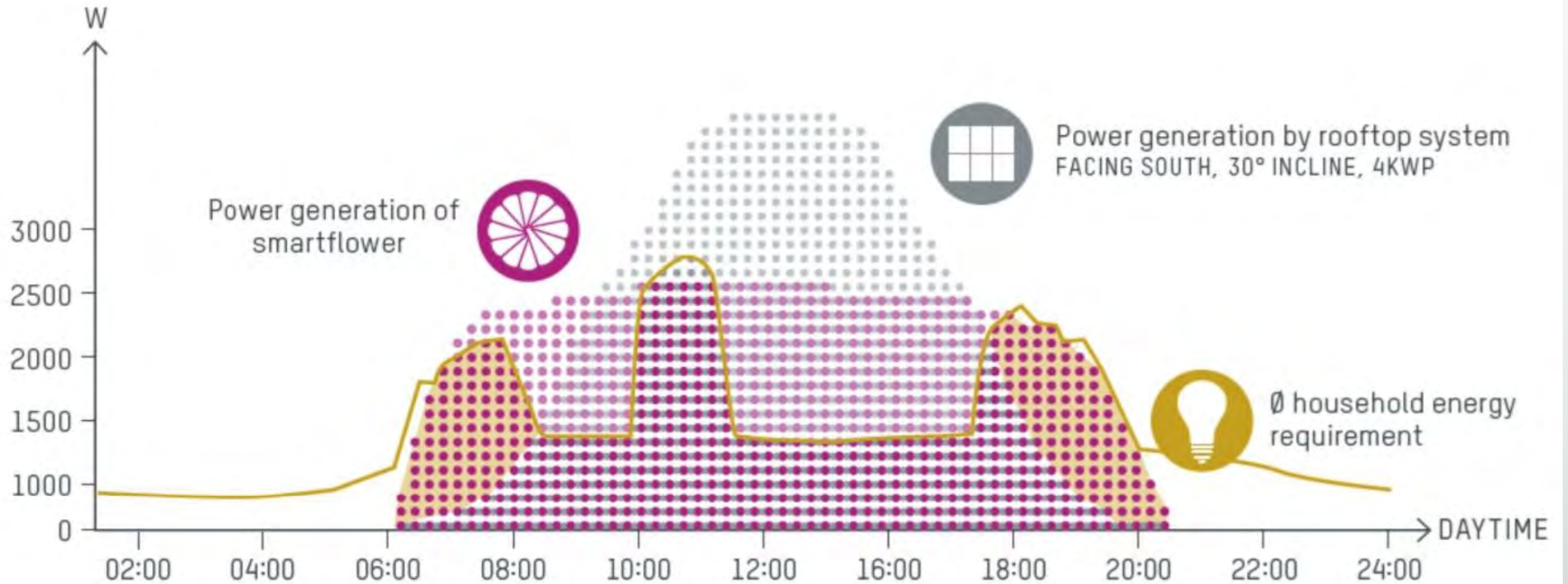
- **Smart Use:**

- All-in-One Solution
Pretty quick and simple installation compared to roof top solar system
- Flexible in installation location (private property, company HQ, educational institutions, leisure park, smart living projects, ..)

- **Smart Mobility:**

- Your SmartFlower comes with you in the event of a move
- compact & transportable on a trailer
- ideal for rented properties, suitable into many events,..

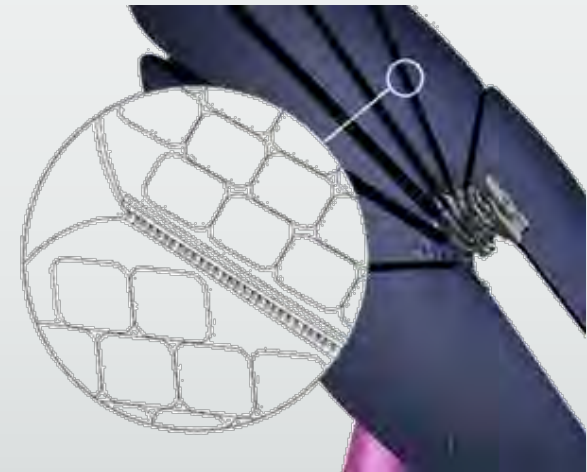
Smartflower power curve



Product Features | Smart Cleaning



- **Smart Cleaning:** Unit self cleans the panels automatically while opening and closing the PV Modules.
 - Brushes on the underside of each panel clean the solar panels, removing dust, sand and snow
 - Cleaning feature improves productivity
 - **Recommended setting: monthly**



Manual cleaning recommended



- Clean panels with water for better result
- Cleaning can be activated manually by pressing button 3 (during daytime)



Product Features | Smart Cooling



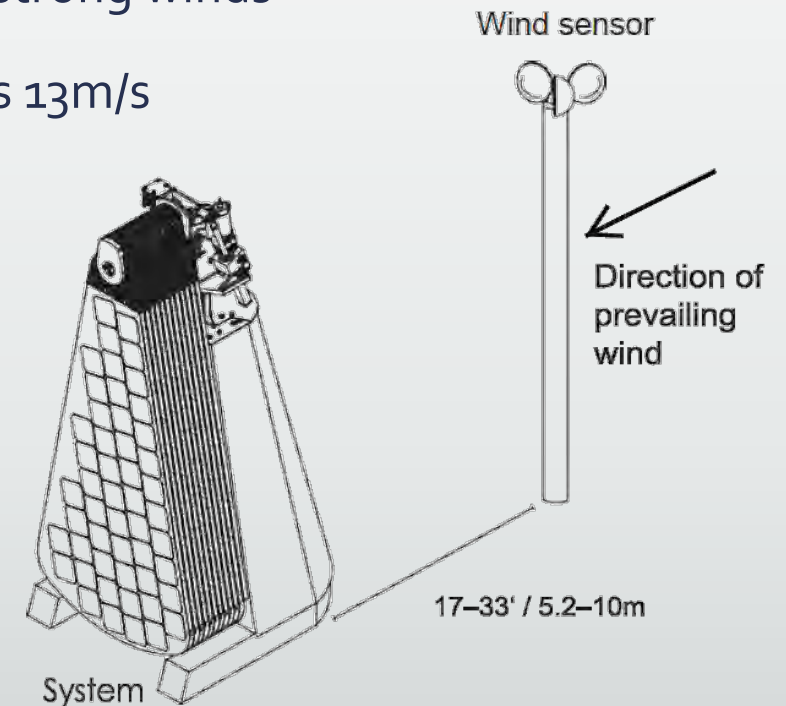
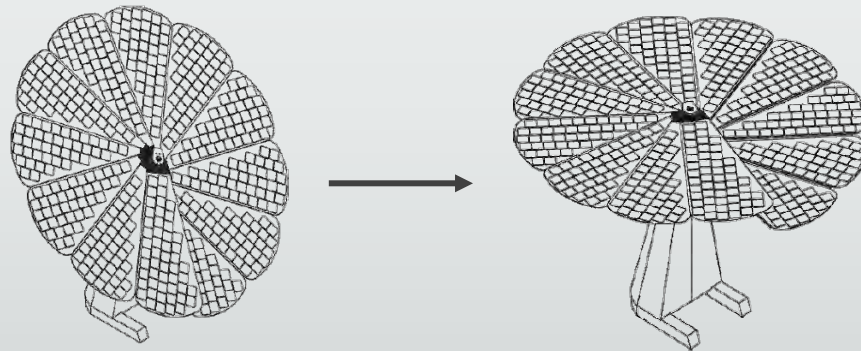
- **Smart Cooling:** PV modules are naturally rear-ventilated
 - Hot air does not accumulate beneath panels, reducing losses
 - Increases each panel's productivity



Product Features | Safety



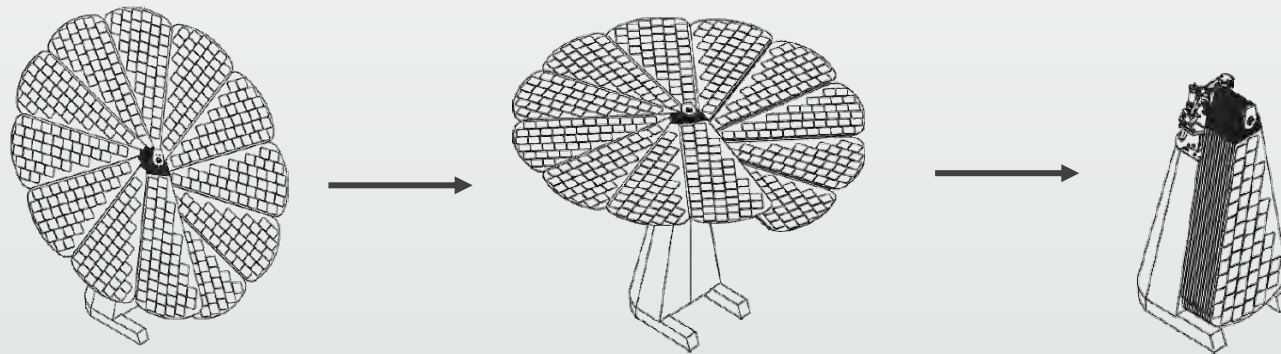
- **Smart Safety:** all Smartflowers are delivered with an external wind sensor (anemometer)
- This protects the Smartflower against damage resulting from strong winds
- Factory default setting to activate security position 1 (SIPO1) is 13m/s (selectable from min 5m/s to max 13m/s)
- Wind >13 m/s (46 km/h): unit moves into horizontal (SIPO1)



Product Features | Safety

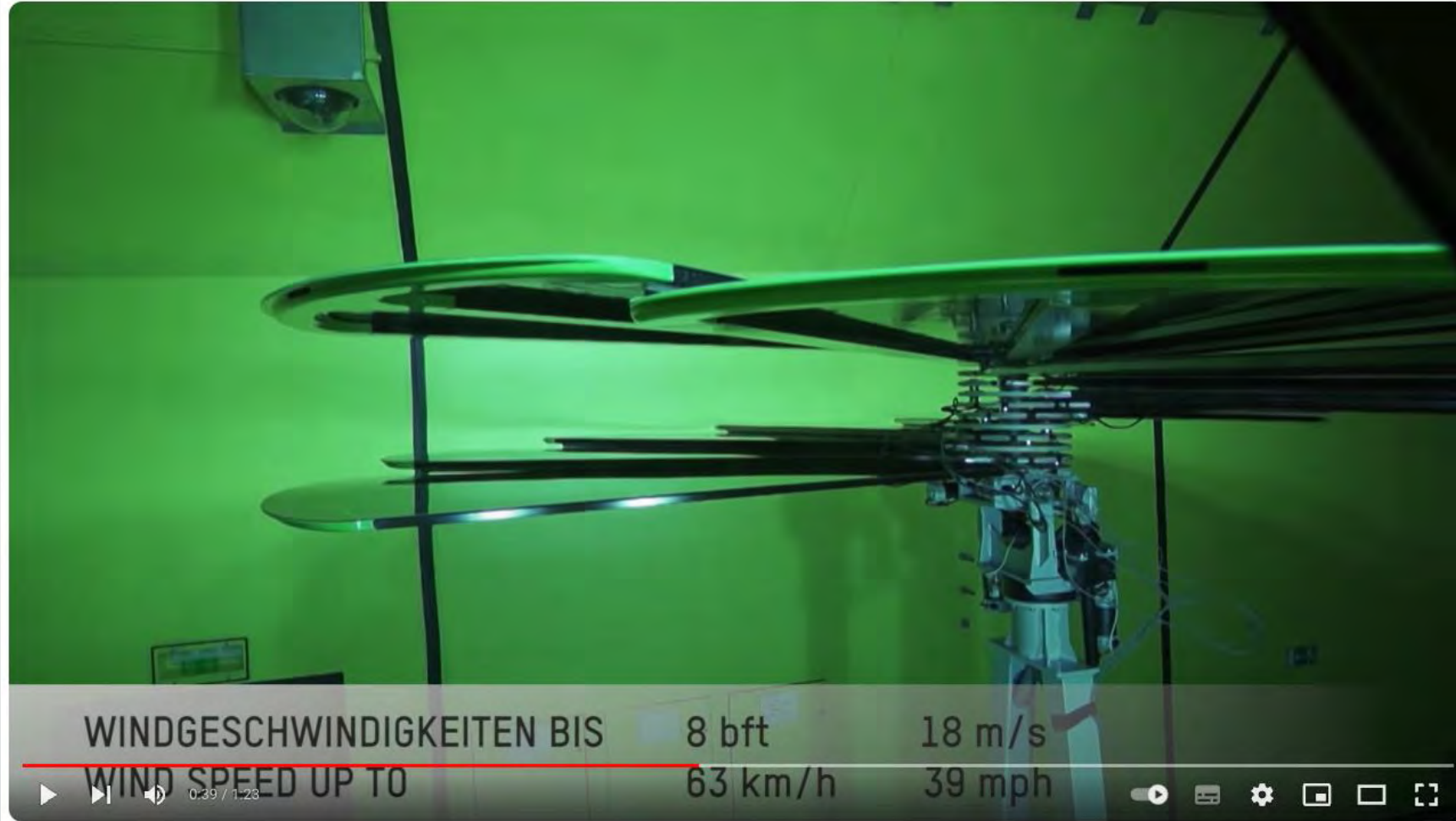


- The SIPO₂ value is calculated in the software as follows as a factor of SIPO₁, i.e.,:
 $SIPO_2 = SIPO_1 \times 1.35$ || **SIPO₂ = 13m/s * 1,35 = 17,55m/s**
- Wind >17 m/s (61 km/h) : unit fully closes and retracts into safety position 2 (SIPO₂)



- When the wind abates, the unit automatically reopens (after ~15 minutes)

Product Features | Smart Safety in Wind



Product Features | Safety



- **Smart Safety:** Control Box unit is equipped with two emergency batteries
 - This rechargeable **lead-acid emergency-batteries (2x 12V 7.2Ah)** are used for back up in case of power outages. The voltage of one battery fully charged should be 12.5-13.7 V while the minimum voltage is 11.2 V.
 - Unit moves into SIPO₂ after ~3 minutes power cut off and returns to tracking once grid power is available
 - Function test during annually maintenance – replace after 5 years recommended

