



The solar folding roof
HORIZON for sewage
treatment plants.

dhp  Solarfaltdach HORIZON

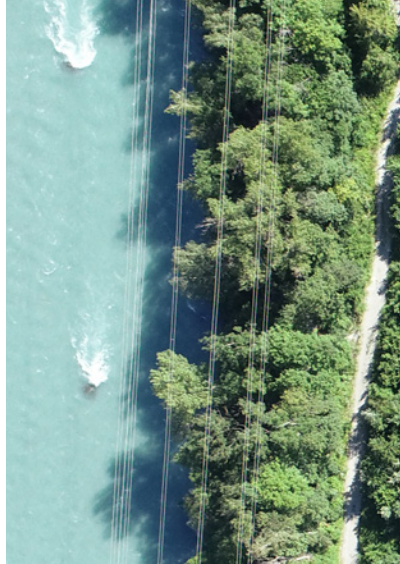


With the world's unique HORIZON solar folding roof, sewage treatment plants become solar power plants.

For the first time, the solar folding roof enables double use of open sewage tanks for solar power production without any restrictions on operations. This is thanks to its lightweight construction and folding mechanism.

The folding of the modular tracks prevents the impact and force of storms, hail and heavy snowfall. This allows for a very light construction, with few slender supports and great height above ground.

Increases self-sufficiency.



Sewage treatment plants require a lot of electricity. 100% of the solar power produced locally by the solar folding roof can be used at the sewage treatment plant. On average, this increases self-sufficiency by 50%.

'The solar folding roof enables us to have a self-sufficient electricity supply. It also helps the environment and is cost-neutral.'

Klaus Biermann
Operations Manager ARA Glarnerland



Keeps access clear.

Access from above to the open tanks is always guaranteed. During construction and maintenance work, the modules can be retracted at any time via a manual control system.





Supports operations.

The solar folding roof provides shade and is proven to thus reduce algae growth. As a result, **less cleaning** is required and general operating costs are reduced.

In summer, the shade offers employees **protection from heat** and UV radiation. This makes working on the tanks more pleasant and not as harmful to your health.

HORIZON's supporting structure enables the integration of modern LED lighting. This makes working in the dark safer.

Locally produced winter solar power.

Thanks to the integrated weather algorithm, **HORIZON** automatically moves to a protected position in the event of storms, hail or snowfall.

In snow regions, solar power can also be produced in winter.

'Thanks to the weather-controlled retraction mechanism, the modules are protected in winter and remain snow-free. Electricity can be produced again immediately with the first rays of sunlight.'

Markus Wendler
Operations Manager ARA Davos





Developed for sewage treatment plants.

The tried-and-tested cable car technology and corrosion protection suitable for sewage treatment plants ensure **robustness and durability** under the most adverse conditions.

'The plastic solar modules, the stainless steel movable parts and the galvanised supporting structure hold up well over the filled treatment tanks. The roof retracts and extends as needed and covers 20% of our electricity requirements as expected.'

Curdin Hedinger
Operations Manager ARA Chur



Improves the image.



The innovative power of **HORIZON** is transferred to our customers. Thanks to far-sighted entrepreneurial action, solar folding roof operators are regarded as future-oriented, as they make a valuable contribution to **climate protection**.

'The HORIZON solar folding roof shows what is possible with sustainable solutions and the right combination of technology. And it's another step towards a clean energy future.'

Ralph Egeter

Head of Product Development SAK
St. Gallisch-Appenzellische Kraftwerke AG

Your solar folding roof project.



How big is a solar folding roof?

The area allocated should be at least 1,500 m². Since the solar folding roof has a modular structure and can be scaled as required, there is no upper limit to the size.



What is the ideal shape?

Ideally, a rectangular area, but it can also be built in an L layout. Curves, angles and arches are not possible.



What are the electricity generation costs for a solar folding roof project?

Production costs of CHF 0.10-14/kWh can be expected in the Mittelland and pre-Alpine regions. These include the monitoring and service contract, amortisation of the modules and electrical components over 25 years, and amortisation of the supporting structure over 50 years.



What effect does retraction during storms, hail or snow have on the yield?

This value is calculated precisely in the planning stage using local weather data. On average, the yield loss amounts to about 1-3%. A slight increase in yield can be expected in winter in snowy regions since the modules are retracted during snowfall and thus remain snow-free.



What is the service life of a solar folding roof?

The solar folding roof is designed for a service life of at least 25 years. The modules also have a performance guarantee of 25 years.



How much service does a solar folding roof require?

Our monitoring and service contract covers monitoring, initial intervention and inspection.



How do I start a solar folding roof project?

Our online solar calculator (see QR code) will give you a non-binding initial assessment of whether your area is suitable for a solar folding roof. You can then request a consultation. Or you can contact us by email or telephone.





About dhp technology.



The company's production site in Zizers, Graubünden, employs about 50 people. This is where the **HORIZON** solar folding roof is developed and planned.

HORIZON is supported by the Swiss Federal Office of Energy, the Foundation for Innovation, Development and Research Graubünden, the EU's Horizon 2020 funding programme, Klimastiftung Schweiz and IWB Basel. Various awards – including the Watt d'Or, the **Swiss Solar Prize 2019** and the Swiss Future Prize 2021 – attest to the flagship character of the solar folding roof.



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Is your sewage treatment plant suitable for a solar folding roof? Contact us without obligation for a free initial assessment – we look forward to hearing from you!

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