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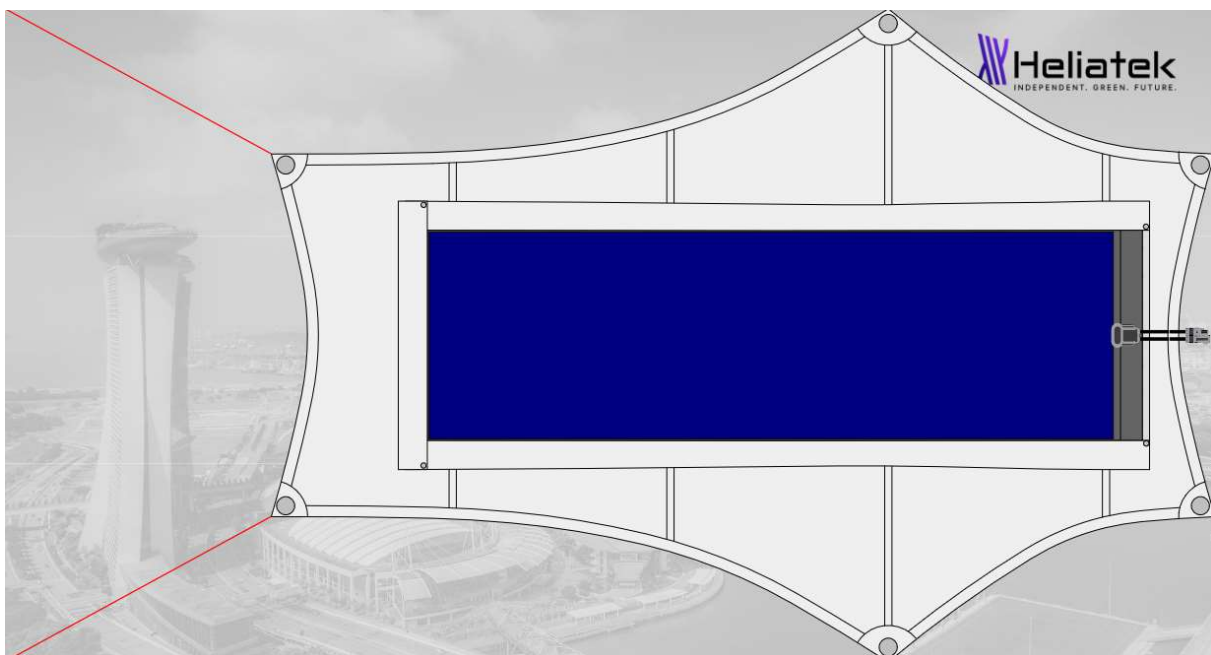
ABSTRACT

The addition of suitable, lightweight and flexibly formable photovoltaic modules to membrane roof constructions is currently the wish of many property owners and the architects and engineers involved in such planning tasks.

For a practicable use on mostly multi-axis curved, opaque membrane surfaces, photovoltaic modules have to be divided into smaller or narrower, interconnected and differently aligned surfaces and combined in special holding structures. If you want to use large-area modules, which on the one hand are more powerful and on the other hand more economical to install, the wind forces that occur are a particular problem. Above all, it must be prevented that they can reach under the installed module and thereby excessively stress the holding structures. The only thing that would remain for the membrane constructions is a reduction to uniaxially curved surfaces, which is hardly acceptable without further ado.

The solution to the problem consists in creating a holding structure from the membrane material already intended for use and adding it to the membrane structure, which holds a flexible photovoltaic module around the edge as far as possible and largely prevents the ingress of wind.

In a sequence of individual images that builds on one another, a relatively simple, material-saving and mechanical production of such a support structure is made comprehensible, which, for example, upgrades the photovoltaic standard product *HeliaSol* from Heliatek, which was not originally intended for this purpose, for real membrane roof applications. [Translated under <https://translate.google.com>.]



Installation scheme of photovoltaic product *HeliaSol* on a membrane construction