

# EXCEEDING ACCEPTABLE PRESSURE

Large-scale photovoltaic farms are more and more often built in locations exposed to strong winds. In such conditions, it is crucial to verify the loads acting directly on PV modules in accordance with the manufacturer's guidelines. Exceeding the limits may result in malfunctions, delays and loss of warranty protection.

## CASE STUDY

- Investment type: PV farm Romania
- Module load: 3020 Pa
- Module manufacturer limit: 2400 Pa
- Overload: 26%



### Problem

Exceeding the manufacturer's limit by 620 Pa meant that a design decision had to be made: change the geometry of the installation or introduce mounting reinforcements. The aim was to maintain the assumed yields and schedule, while preserving the warranty for the modules.



### Our solution

Instead of implementing expensive changes to the project design, Enson team held technical dialogue with the EPC, investor and module manufacturer, to propose a structural solution that complied with the installation guidelines. We focused on verifying the loads affecting the modules and maintaining the investment parameters.

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## Solution

We proposed double mounting of the modules to the support structure, which reduces risk of load overload and allows for compliance with the module manufacturer's requirements without changing the angle of inclination and orientation of the tables.

- No change in installation geometry (no impact on expected yields).
- Compliance with the module manufacturer's installation guidelines.
- Maintaining the schedule and reducing the risk of redesign.
- A clear path to approval through technical dialogue.

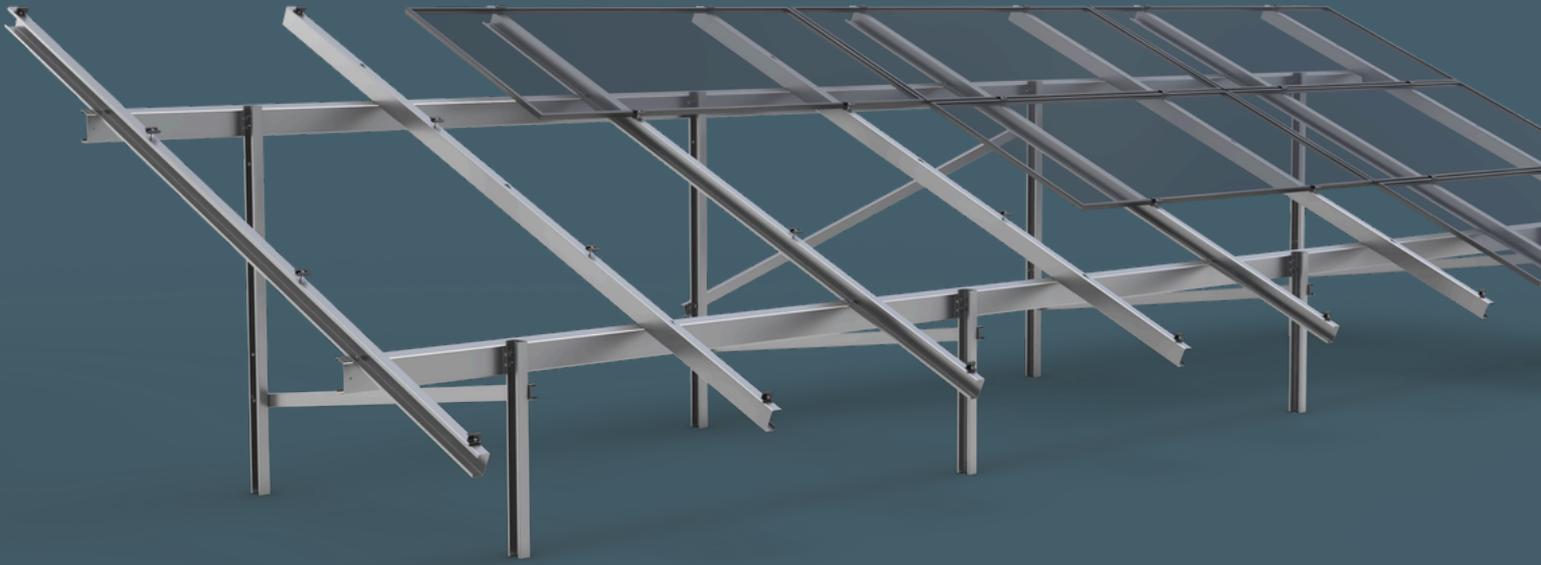


## Effect

The solution was approved by the module manufacturer, ensuring that the warranty remained valid and operational safety was guaranteed. From the perspective of the EPC contractor and the investor, it was crucial to maintain the original design assumptions while meeting the technical criteria.

- ✓ Minimising additional costs
- ✓ Risk minimisation and warranty protection
- ✓ Maintaining original yields and return on investment
- ✓ Maintaining the schedule and consistency of documentation
- ✓ Clear technical parameters and agreements





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## Conclusions

Due to increasingly frequent extreme weather conditions, wind load control for PV modules is no longer a mere formality. It is one of the elements that directly affects project profitability, safety and cost predictability.

At Enson, we combine engineering analysis and Mindful Design with proactive cooperation to protect the investor's interests and ensure real value even before installation begins. Would you like to verify your investment? Contact us — we will help you assess the loads and select a solution tailored to your requirements.

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