

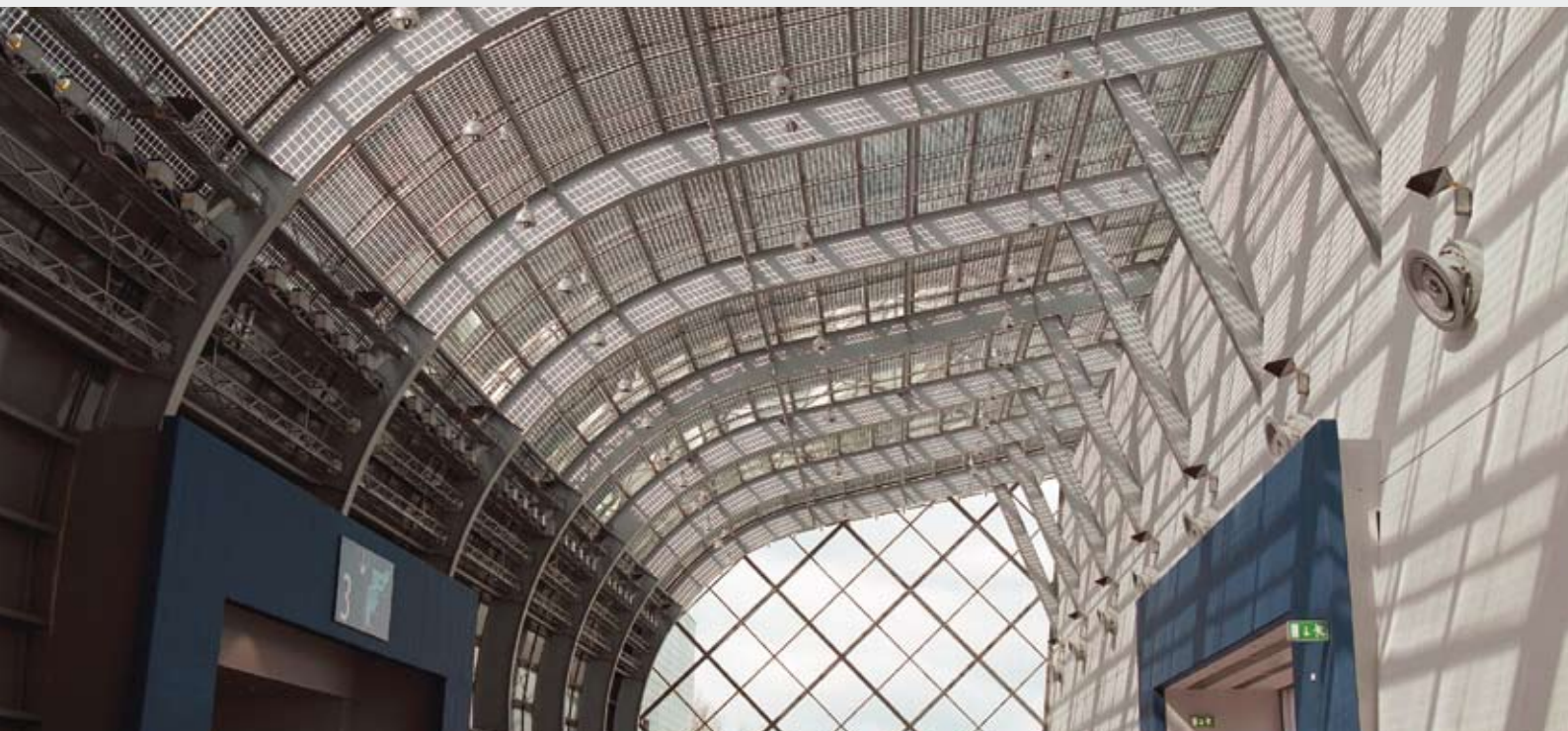
TRADE FAIR CENTER ESSEN

PV system Messe Essen, Germany

Modern trade fair exhibition centers exude an air of elegance and convey cutting edge design.

The Galeria, the "backbone" of the exhibition complex, creates a unique special experience, which is essentially dominated by its PV system. The halls' central linking axis is

Visitors find themselves in a universe of solar power. German artist Jörg Immendorf's glass art installation "Energy" perfectly complements the Western gable.



spanned by an arched roof of semi-transparent PV modules. The spacing between the solar cells ensures optimal use of daylight. At the same time, there is no need for additional solar protection. According to the trend of integrating modern technology as an architectural design element, the string inverters are positioned along the arched steel structure.



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Exceptional architectural features demand a high level of flexibility and ingenuity of construction management companies. Furthermore—as exemplified below—output is, to a large degree, often specified on a functional basis only. *abakus* was presented with the challenge to manage the construction of various sections (steel structure, glazing, electrical engineering) on behalf of the company Flabeg Solar. A range of problems, spanning a variety of areas of expertise, had to be solved in cooperation with the other contracted companies.

As so often, the tight construction schedule presented another challenge. The project entered its main construction phase in the late fall of 2000, but with joined forces it was possible for *abakus* to meet the target and complete the roof before Christmas – despite the fall weather.



Grid connected PV system

System size:	208 kWp
Number of modules:	731 double glass modules
Type:	Non-standard
Module power:	38 mm, insulated glass construction
Number of inverters:	59
Type:	SMA SWR 2500