



Solar panels affect a building's risk profile

Solar panels have evolved from being a supplement to the energy supply to becoming an integral part of a building's installations and operations – with implications for the building's overall risk profile.

By Kristine Seest

As solar panels have become a more integral part of modern buildings, they have also come to play a significant role in the overall risk assessment. Today, the installation of both large and small solar panel systems requires a holistic approach, because from an insurance perspective, new requirements are being placed on the building's risk profile.

»A lot has happened since 2010, when solar panels began to gain a foothold in Denmark. Back then, solar panel systems were installed with a focus on energy production and cost-effectiveness, whereas today we see that solar panels and other energy solutions have become a fundamental prerequisite for the building's functionality,« says Practice Lead Property Felix Olafsson from Willis, a WTW business.

The significance of solar panel systems for the building as a whole also has implications in an insurance context.

»Both new and existing buildings are increasingly being equipped with more technology, larger electrical installations and solutions that require ongoing monitoring and adjustment. From an insurance

perspective, this development does not necessarily increase the risk, but the risk profile becomes more complex. Changes in one part of the building can have an impact in several other areas, and this places greater demands on oversight, documentation and ongoing assessment,« says Felix Olafsson.

Experience from specific claims and major fires, where there have been both technical faults and challenges related to installation and documentation, has led to a gradual shift in the insurance market's approach to solar panel installations.

»Solar panels have gone from being a background element to becoming a separate focus area in risk

assessment. The systems must now be declared separately, and insurance companies are imposing specific requirements and, in some cases, introducing higher deductibles or premium adjustments,« says Felix Olafsson.

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Felix Olafsson | Practice Lead Property

When battery solutions or a Battery Energy Storage System (BESS) are added, special considerations are necessary because these solutions are often assessed as a separate risk component and therefore cannot simply be regarded as a direct extension of the solar panel system.

Fire safety and mutual reference

Today, there is significantly greater clarity regarding what is expected of a solar power system in an insurance context. The Danish Institute of Fire and Security (DBI) has produced DBI Guideline 39, which is a key element in this development and is widely used in practice by installers, consultants and insurance companies.

The DBI guideline serves not only as a technical recommendation but as a common reference point for assessing the impact of the solar panel system on a building's fire safety.

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Tonny Jørgensen | Head of Risk Engineers

»Compliance with DBI 39 is regarded as an indication that the system has been thoroughly planned, documented and integrated into the building – and not merely correctly installed. In practice, insurance companies place particular emphasis on documentation of the installation, the system's location in relation to fire compartments and roof structure, as well as how the system can be disconnected and managed in the event of a fire or damage. Regardless of the system's size, a lack of clarity in these areas will increase uncertainty in the risk assessment,« says Head of Risk Engineers Tonny Jørgensen from Willis.

Failure to comply with the guidelines does not mean that a system cannot be insured, but it may result in increased scrutiny, additional requirements or limitations on the scope of cover.

More complex solutions

The scenario has become more complex because solar panels form part of a broader technical solution, where multiple installations and operating conditions influence one another.

»In many cases, the installation of solar panels entails consequential changes to the building. Increased self-generation of energy may require new or enlarged electrical panels, adjustments to cable routes and changes to the overall electrical installation. These factors affect not only the technical layout, but also the building's fire and operational profile – and thus the basis for insurance,« says Tonny Jørgensen.

From an insurance perspective, the risk does not lie in a single component, but rather in the whole, where the solar panel system, building structure, operation and ongoing maintenance and inspection all play a part.

Early dialogue between the company and the insurance broker, clear documentation and a holistic approach to the installation of both large and small solar power systems are crucial to avoiding surprises and ensuring that insurance cover keeps pace with the building's technical development and the actual risk over time.