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Solar panels on commercial facility rooftops – Why are they so hard to insure?

Today's energy situation gives incentives to invest in green transition solutions. As a way of reducing the production costs, industrial companies are installing solar panels, also known as photovoltaic (PV) system on facility rooftops. While these installations are encouraged by scientists and authorities, representatives of the insurance industry seem concerned due to the lack of applicable regulations.

“It is usually a go/no go-situation.” That is a common answer when asking insurance representatives about the possibility of insuring commercial facilities with a roof mounted PV system. A potential insurance policy is usually depending on choice of material in combination with a PV system installation. Once the facility's roof construction is made of combustible materials, it generally becomes a dealbreaker for the insurance company, since the risk of fire is dramatically higher. As a part of my thesis research, I wanted to discover and concretise what these dealbreakers were founded in. Was it failing PV components and what were they? Were there any gaps in the regulations of PV systems? Was it a mix of both?

Scientists and insurance industry representatives share a common view that there is a need for improved regulations within the PV spectrum, especially for commercial applications. Definitions of PV components need to be clearer and firmly framed so that they can be used globally. Standards and codes for installation, maintenance and monitoring should also be uniform so that it can be practically usable on a global level.

If not dealing with the issue, there will be not only direct effects, but also indirect effects. The lack of regulations initially has a negative

impact on the insurance companies' risk appetite, where insurance companies become more sceptical to provide insurance. Subsequently, the lack of risk appetite and unwillingness to insure facilities using green transition solutions may have an inhibitory effect on the product development. Furthermore, the lack of customer interest and less purchases might culminate in a stagnation of PV technology development. This way, a problematic dilemma occurs, where insurance companies need to choose.

Insurance companies can either take a passive and safe approach by excluding insurances of commercial facilities with PV system, minimising the risk of property damage due to PV system failure. Alternatively, promoting green transition solutions, such as PV systems, which ultimately is a bigger economical risk for the insurance company, but also a step into the future investment market.

Insurance representatives find this choice very challenging. Still, they say that the product development must be prioritised. That leaves the question: “How can they be insured?” A question that permeated the thesis research. The answer incorporates not a single answer, but a compilation of many.

To achieve compliance and sustainability in the insurance of these facilities, a contingency plan, including maintenance and monitoring of already existing PV installations should be founded for each insured client, to make sure that risks are mitigated. Further, as the product development continues, decision makers of PV regulations should unite and create standards that are in line with current technology and being globally applicable. This way, the risk appetite is preserved, and green transition solutions are encouraged.

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