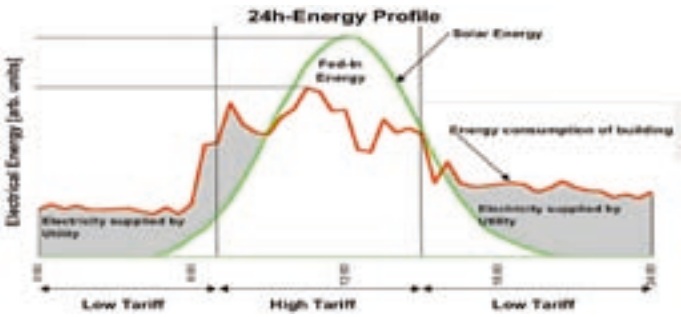
PHOTOVOLTAIC FACT SHEETS

European Photovoltaic Technology Platform

Some people state that "PV will not integrate into the existing electricity grid."

The fact is: Approximately 3 GW Photovoltaic (PV) capacity is European wide grid-connected. According to the experience available so far, it is safe to say that operating the technology within the existing electricity networks is uncomplicated.

In any power system, the electricity production must match the consumption at all times. System studies show a wind power correlation of 0.15, meaning that for 15% of the demand we can expect the wind mills to deliver the power. That is a low number but still the Danish grid operates with wind power accounting for 32% of the installed capacity. The same study found the corresponding correlation factor for PV power production to be 0.21. In other words, PV relates better than wind to the demand for power.



In a power system with widely distributed generation or dominated by wind generation, PV power will be attractive as a power source based on predictable production forecasts.

"Distributed generation is not so much a challenge for the system operator as a solution to the problems of security of supply."

Mrs. Lise Nielson
Member of the PV Technology Platform mirror group
ForskEL programme coordinator, Energinet.dk

A PV power plant offers peak power production in the periods during the day and the year with the highest demand - daytime with the air-condition at full speed.

Roof top PV integrated into the network will affect the individual consumer power demand and lower the PV owner's daytime demand and therefore the overall demand for power.

Source: Suntechnics

Therefore the correct statement is:
"PV has a well-defined generation profile which shaves off peak demand and generally is complementary to other distributed or central electricity supply."

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