

**PLENARY SESSION 1: CORDEX IN ACTION: ACHIEVEMENTS & LESSONS LEARNED**

**The impact of climate change on photovoltaic power generation in Europe**

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Ambitious climate change mitigation plans call for a significant increase in use of renewables, which could, however, make the supply system more vulnerable to climate variability and changes. Here we evaluate climate change impacts on solar photovoltaic (PV) power in Europe using the recent EURO-CORDEX ensemble of high-resolution climate projections together with a PV power production model and assuming a well-developed European PV power fleet. Results indicate that the alteration of solar PV supply by the end of this century compared to the estimations made under current climate conditions should be in the range [-14%;+2%], with the largest decreases in Northern countries. Temporal stability of power generation does not appear as strongly affected in future climate scenarios either, even showing a slight positive trend in Southern countries. Therefore, despite small decreases in production expected in some parts of Europe, climate change is unlikely to threaten the European PV sector.

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