Western european weather solar electricity system

In the following, we demonstrate that the European energy system would strongly profit from exploiting the implications of these regimes for continent-scale wind generation patterns. The ...

In general, the chosen climate models show a more significant agreement in the occurrence of energy droughts for northern and southern Europe compared to its central part. ...

This study analyses the impact of year-on-year variability of weather and large-scale weather patterns on the 2030 European power system as envisioned in the MIX scenario of the Fit for ...

This study uses a continental electricity system model and 30 years of hourly wind and solar data to determine the impact of long-term weather patterns on European electricity system ...

This paper investigates the impact of climate variability on wind, solar, hydropower generation and electricity demand in 34 inter-connected European power systems using a power system ...

The growing share of variable renewable energy increases the meteorological sensitivity of power systems. This study investigates if large-scale weather regimes capture the influence of ...

27 Climate change mitigation requires lowering the carbon intensity of energy systems7. Wind and 28 solar photovoltaics (PV) are key technologies to achieve this objective. In Europe they ...