



Energy production and meteorological extremes

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For weather-dependent renewables, both forecasting and managing power variations due to intermittency will in the future be the task of an electricity grid known as a smart grid. The task of electricity management will be to handle weather extremes and meet the electricity demand. The increase in the number of weather extremes and the absolute value of the phenomena on any scale has increased significantly as a result of climate change and is likely to continue in the future. This includes stormy winds and dark, wind-free (Dunkelflaute) days (from a substituting power perspective), but also heatwave days (from a summer peak load and base load plants back-loading perspective). The presentation will elaborate on these relationships.