

Climate Prediction Services for Energy

“[Renewable] energy provision may be anticipated, not only in the short and long term as it is today, but also at intermediate horizons, where a huge market niche appears.”
Ignacio Lainez Aracama, Professor of Wind Energy, EOI and Director of Energy Assessments, EDP

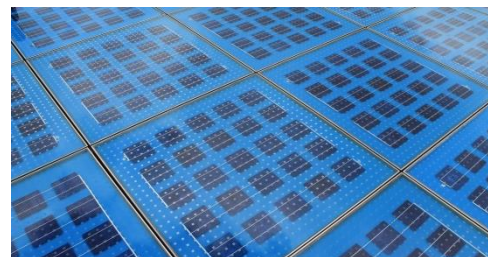
Products

1. Monthly to decadal predictions

Climate predictions evaluate the variability of weather over near-term future timescales. They represent the cutting-edge in climate modeling and the most robust climate information currently available, by demonstrating the probability of possible scenarios alongside which is the most likely.

2. Impact assessment

Early identification of climate-related vulnerabilities for the energy sector that help identify risks and opportunities for electricity producers, distributors and traders. Support in defining management strategies and precautionary adaptation to climate change.



Applications

- Renewable Energy Sector
 - Mid-term operations & maintenance planning
 - Energy trading and electricity prices
 - Estimation of more accurate budgets
 - Pre- and post-construction assessments for wind and solar farms
 - Meet the balance between demand and supply



Our projects on climate predictions for the energy sector have received funding from:

Contact us at:
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Mineral Dust Services

“Desert dust and sea salt are the largest contributors to the global aerosol burden”
IPCC, 2013

Products

1. Mineral dust assessment

Dust models are developed for short to medium-term prediction of mineral dust events worldwide and for regional climate modelling. Our team has developed the NMMB/BSC Dust model in collaboration with the NOAA's National Centers for Environmental Prediction (NCEP).



2. Forecast system

Early-warning information about current and future dust concentration and derived parameters critical for specific sectors.

Applications

- **Solar energy**
 - Power forecasting
 - Mid-term maintenance planning
 - Site planning for new projects
- **Transportation**
 - (air) Visibility assessments for airlines and flight management
 - (ground) Transportation impacts
- **Health**
 - Early-warning system for people with respiratory problems
- **Agriculture/ Insurance**
 - Crop damage

