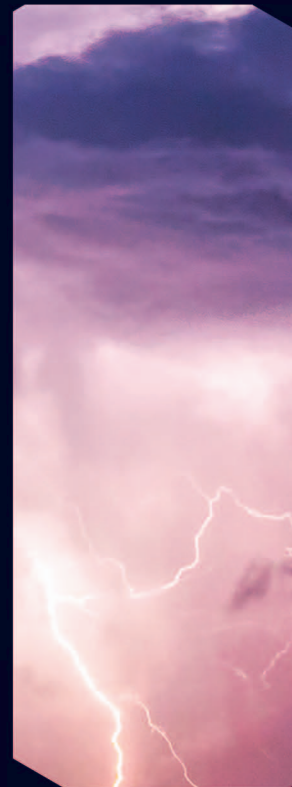


solute



aphelion

Wind and solar  
power forecasting  
for energy  
markets



# Meteorological forecast services from a multimodel perspective

Aphelion is a platform which offers meteorological forecast services focused on giving support and contributing on the decision-making process within the renewable energies industry.

From a high-resolution forecast, Aphelion offers meteorological and energy forecast as well as climate consultancy within a two-weeks time horizon. Moreover, these capacities can be useful for both as company-driven and particular-driven services.

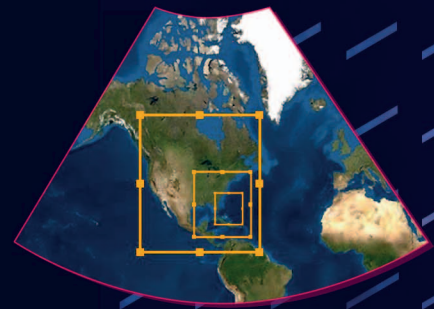
## Numerical model + Artificial Intelligence Algorithm

Aphelion is powered by our hybrid system, which combines these two methodologies to obtain an accurate wind and solar power forecast, taking full advantage of meteorological long series data through several big data techniques.

- ◉ **High-resolution 3km WRF model (Weather Research Forecast)**

Within Aphelion's database, there exists high-resolution topographic data which allows the topography's influence to be considered in both regional and local weather forecasts.

The configuration of these models is especially useful when determining environmental conditions caused by severe meteorological phenomena, which could impact different types of operations and industrial environments.



- ◉ **+5 AI architectures power Aphelion's engine**

Artificial Intelligence and machine learning algorithms allow, from historical series of meteorological variables, to improve real-time forecasts and convert weather forecast into energy.



# Aphelion is for everyone

From companies in the energy sector to regular individuals who want to stay updated on the weather conditions in their communities.

## *Individuals*

Aphelion's unique, complete, and user-friendly interface will enhance all users' experience. Whether you seek a weekend getaway, do outside activities, or simply need to stay updated in your area, Aphelion will provide you with the most effective forecast and its detailed meteograms feature for your day-to-day activities.

## *Companies*

Some sectors can benefit from Aphelion business-driven technical services: companies involved in the renewable energies industry and companies positively influenced by agrometeorological forecast services.

### ◉ Wind and solar renewable operators

Aphelion's wind power forecast and solar power forecast contribute major benefits to wind farm operators, since it is possible for them to plan maintenance tasks during low-production periods, anticipate earnings, and share in-advance production forecasts with grid operators or clients.

### ◉ Traders

To sell electricity on power exchanges, traders can rely on Aphelion for day-ahead power forecasts during bids optimization, increase transaction earnings during daily, intraday, and continuous market forecasts, and even avoid penalties due to balance differences between delivered and announced energy productions.

### ◉ Aphelion Wind will help you obtain accurate forecasts

- Work with renewable energy assets with no historical data.
- Individual wind turbine forecast based on SCADA data.
- Plan construction and operational tasks with of our weather alarms system.
- Ad hoc forecast services and assessments by taking full advantage of available data.



# Wherever you go

Stay updated on weather conditions in your area with Aphelion's online live weather map. Or download the Aphelion's mobile app, which is available on both the App Store and Google Play store. Our team is always working to bring you updates and new features.

- ◉ Up to four multi-view maps with different models and variables
- ◉ Extensive range weather forecast (up to 16 days)
- ◉ Short-term weather forecast (0-72 hours)
- ◉ Four daily forecast updates and detailed meteograms
- ◉ Weather observations at real time



LIVE WEATHER MAP at  
[www.aphelion.com.es](http://www.aphelion.com.es)



Learn more about Aphelion at  
<https://aphelion.services>

## solute

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