



Vaisala Xweather Renewable Energy

Vaihtelevan uusiutuvan energiantuotannon ennustaminen

Teppo Kuisma
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What does Vaisala Xweather Energy provide?

"We provide renewable energy operators with near real-time monitoring data to support efficient operations and decision-making."

"We provide renewables asset owners and energy traders with accurate power output forecasts to help them operate more effectively and integrate into power systems and markets."

What does Vaisala Xweather Energy solve in hourly matching ecosystem?

Vaisala provides accurate hourly and up to near real time performance and forecasting data at scale, to match the requirements for hourly matching

Product: Vaisala Xweather Renewable Energy Site Specific Forecasting

Site Specific Wind and Solar Energy Forecasting for Asset Managers

Overview

Wind and solar energy forecasts for utility-scale renewable energy plants.

includes:

- Data ingest of customer's site observations
- Forecasts of standard weather variables (wind speed, irradiance, wind direction, temperature, icing etc.)
- Solar and wind estimated power generation forecasts
- Forecasts are 1-240 hours look-ahead, up to near real time

Customers & Markets

Asset managers, power marketers, grid operators, balancing authorities, schedulers and energy traders.

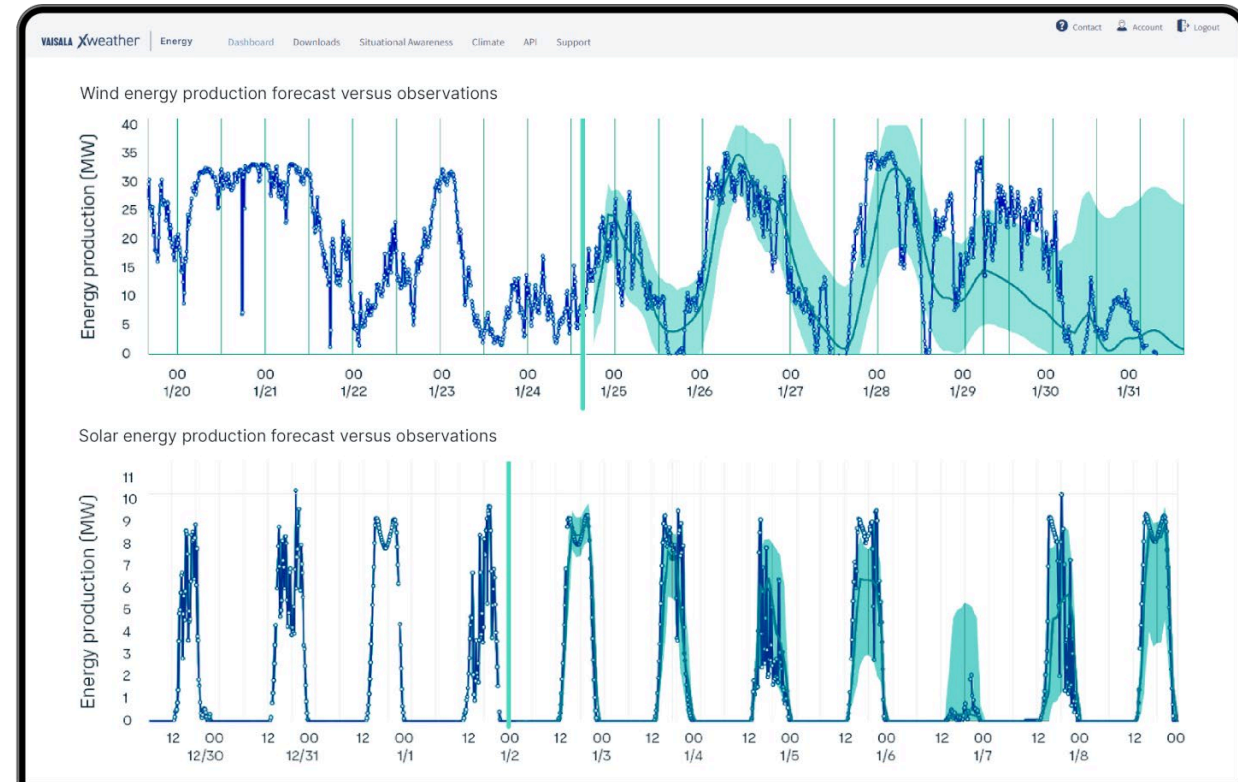
The decision maker for these subscriptions are usually asset managers at utilities, owner, operators.

The end-user is usually the scheduler, power marketer, plant manager, or other O&M personnel

Key Features

- Blended , machine learning trained forecasts combining customer observations with the following NWP grids:
 - ECMWF
 - GFS
 - UK-Met
 - ICON-EU
 - HRRR
 - Met Nordic
 - NAM 12km

(we have 3 years of historical archives of all the above)



95%

accuracy for hour-ahead energy forecasts

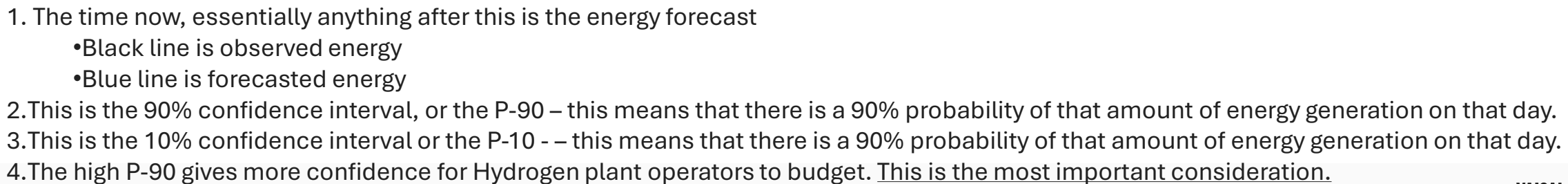
92%

accuracy for day-ahead energy forecasts

Sub-hourly

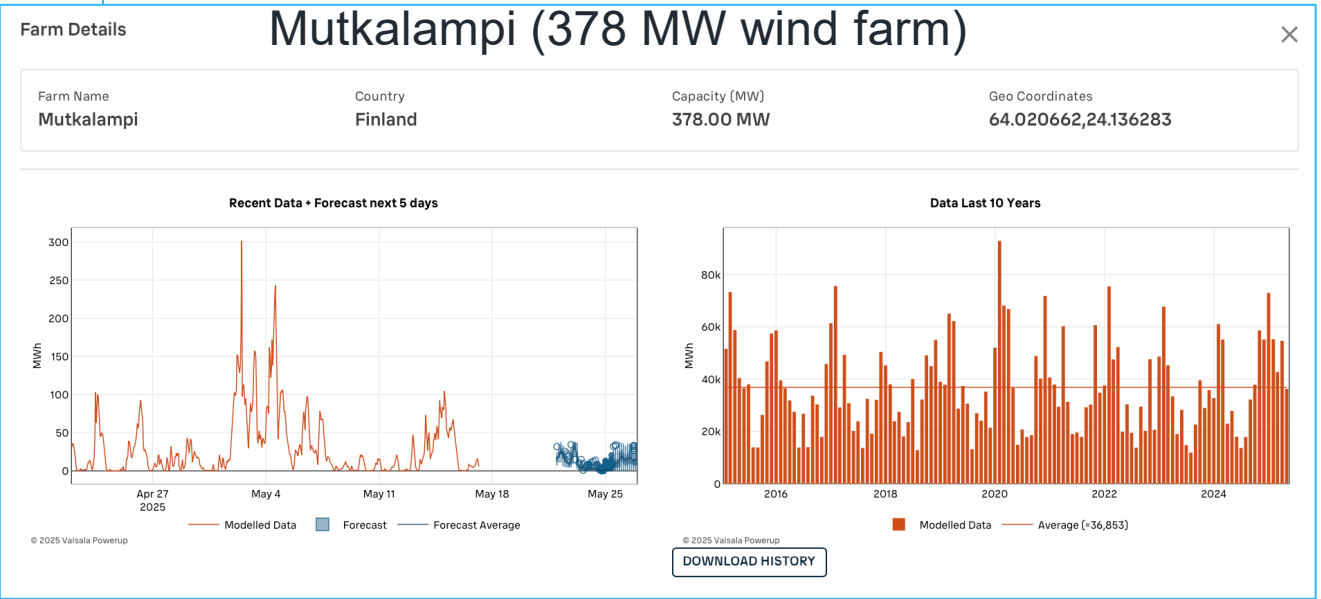
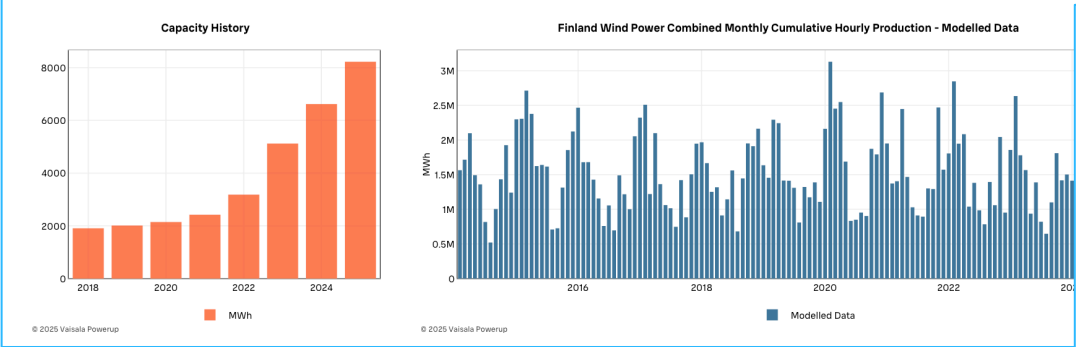
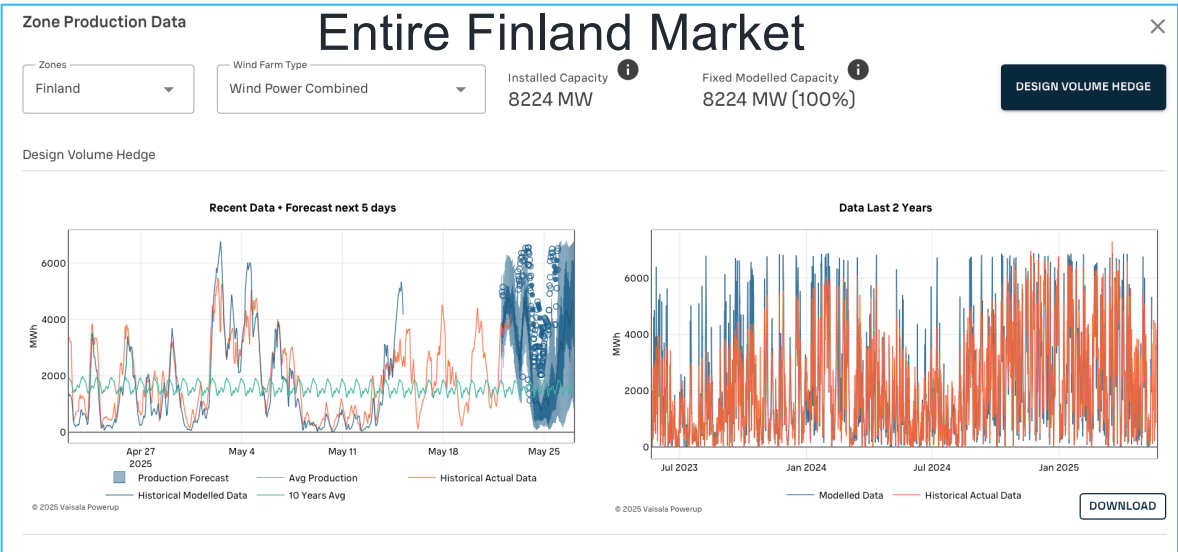
and hourly and daily power forecasts up to 230 hours ahead

5



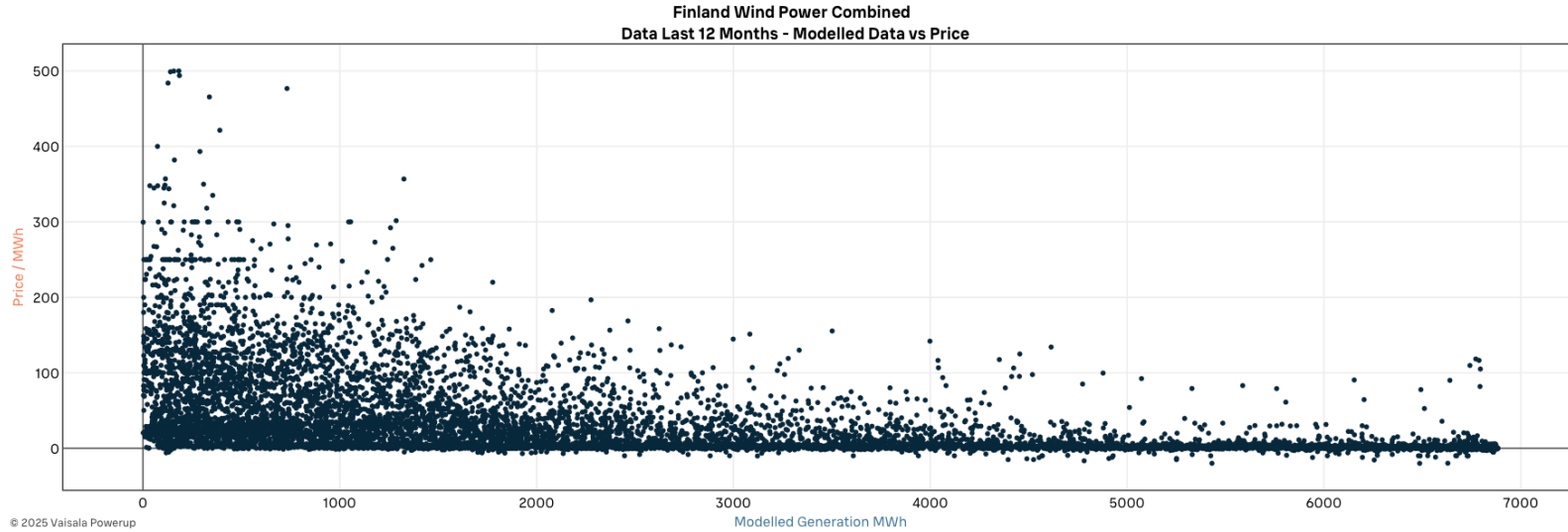
VAISALA Xweather Powerup

A platform to assess and manage renewable energy variability at market and project level

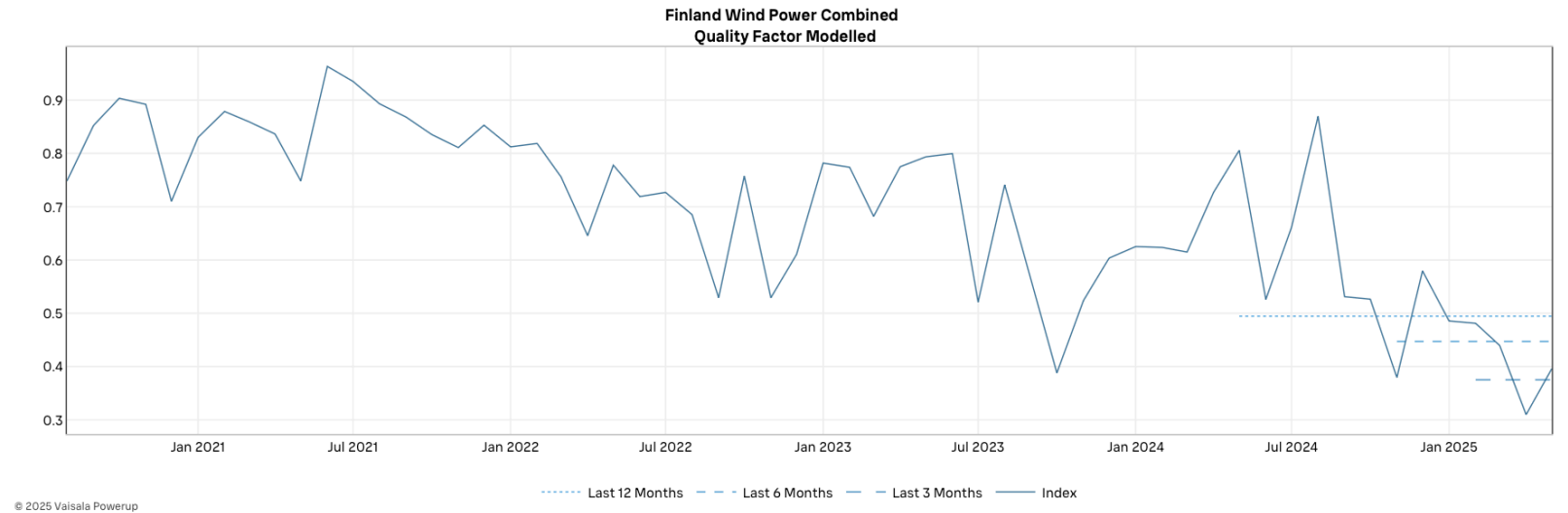


VAISALA Xweather Powerup

Explore relationship between volume and price



Increasing periods of low electricity market price during periods of high wind



Further read and contacts

<https://www.xweather.com/renewable-energy>

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Saa olla yhteydessä