# FORECASTER

## Maximize the value of energy with accurate power forecasts

### OUR SERVICES

The output from renewable energy sources like wind and solar power is, literally, as variable as the weather. Yet reliable insight into renewable energy supply and demand is business critical for many players in the power system from power plant owners to grid operators and energy traders.

**ENERGY TRADERS**
Accurate, reliable wind, solar, electric load, and market price forecasts derived from real-time weather conditions reduce transaction risks with the click of a mouse.
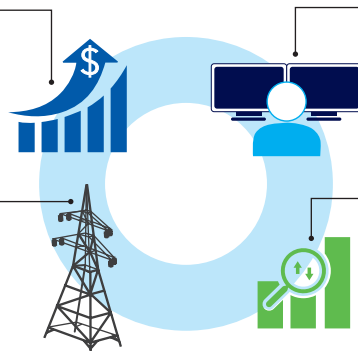
**UTILITIES/ISOs/GRID OPERATORS**
Sophisticated regional and plant-level forecasting integrated into your 24/7 grid operations, dispatch, and market management with access to our forecast experts.

**ASSET OWNERS/STAKEHOLDERS**
Ensure your projects meet scheduling obligations while enabling operations staff to efficiently plan & execute maintenance and construction activities.

**RESEARCH & DEVELOPMENT**
Our analysis capabilities, data platform, weather and forecasting expertise provides customized solutions and data you need to explore new opportunities.

**A proven methodology for accurate predictions**
Since 2003, DNV's Forecaster has been delivering insight through reliable data-driven predictions to help you maximize profits, avoid missed opportunities and optimize operations.

Our proven methodology combines industry leading models from the world's foremost meteorological agencies with an unparalleled understanding of renewable energy systems, plus cutting-edge statistical and physical models, machine learning and data analytics. As a result, our forecasts are globally renowned for accuracy and reliability.

Our range of forecasts include:
- Wind and solar power forecasting based on a plant, portfolio, or regional market level and aggregation of behind-the-meter PV installations.
- Power demand forecasting based on a building/plant level, or regional market level.

In addition, further services have been developed to complement our short-term power forecasting business, including extreme weather alerting, wind turbine icing forecasting and power price forecasting.

DNV

We provide reliable renewable energy forecasting with 24/7 global support based on experience:

| 2,000 | 135+ | 20 | 60+ | 18+ |
|---|---|---|---|---|
| operational sites | GW of installed capacity | countries | customers | years' experience |

## Easy, made-to-measure access

Our analytical team is comprised of engineers, meteorologists and data scientists, who provide core services including:

- Bespoke design of forecast delivery files to the customers' requirements, which can include compliance with regulatory formats.
- Automated delivery of these forecasts via SFTP, emails or API.
- Real-time incorporation of SCADA data into forecast models.
- Access to our secure web portal to view latest forecast information, perform analyses on forecast accuracy performance, or to submit planned site availability information.
- 24/7 analyst support through phone and email.

## Case studies

**Customer:** Energy Trader

**Challenge:** Trader needed data and second opinion to validate timely trading decision in ERCOT market in the US.

**Value: More informed power trading decision and confidence.** Low cost, snapshot forecast with hourly resolution out to 7 days. Additional data provided more insight into potential impacts of wind and solar generation on power supply & pricing.

**Customer:** Wind Farm Owner

**Challenge:** Offtake agreement required submission of hourly predictions of generation out to 5 days in advance. Site and asset manager needed automated solution.

**Value: Accurate, simple, done.** Wind farm owner's forecast needs were relatively straight forward and they required a cost effective, fit-for-purpose solution that ensures they remain in compliance with contractual obligations.

**Customer:** SSE Renewables

**Challenge:** Large utility required robust, reliable prediction of variable wind generation for a large portfolio of onshore and offshore wind farms to support 24/7 operations.

**Value:** Utility receives forecasts at 30-minute intervals to give the energy trading team up to date information for decision making. Data transfer tailored to integrate with the trading desk, and customer receives bespoke reports to monitor the accuracy levels and data quality.

**Customer:** Egyptian Electricity Transmission Company

**Challenge:** Transmission company needed guidelines for the modifications necessary to the Egyptian power system to accommodate wind penetration up to 12% of total generating capacity.

**Value:** Combining DNV's Forecaster with an economic dispatch program and a power balance model, DNV designed an appropriate spinning reserve margin to operate the transmission system on a practical security margin.

## Reliable service with 24/7 analyst support

Our forecasts are delivered via a proven infrastructure that achieves more than 99.9% service availability, with comprehensive backups, and our analysts are on hand 24 hours a day, 365 days a year to help you out.

### CONTACT US TO LEARN MORE

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