



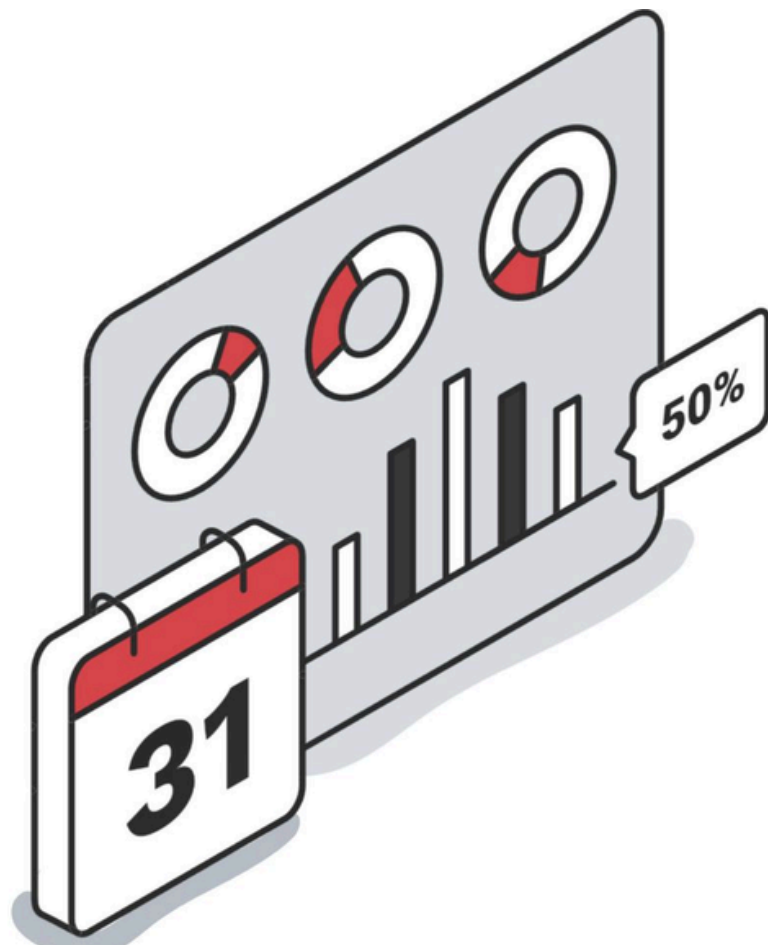
Affordable energy and water for everyone

ZONOS™ 24insight

Intelligent forecasting for short-term predictions, which allows the feeding of a wide range of critical infrastructure applications.

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Affordable energy and water for everyone

Use Cases



FORECASTING ENERGY PRODUCTION

ZONOS 24insight is ideally suited for load forecasts 1 to 7 days ahead. This enables better planning of the required energy production and thus saves energy and money.



AVOIDANCE OF FINES

In many countries, inaccurate demand and generation planning results in paying fines for the market participants. Using ZONOS 24insight prevents such additional costs due to its high forecast accuracy.



MINIMIZE THE COST OF BUYING ADDITIONAL POWER

Buying additional power generation on the spot market to cover for not-precise forecasting costs a lot of money. With ZONOS 24insight, these costs can be minimized by making precise forecasts using custom cost functions.



FORECASTING OF RENEWABLE ENERGY GENERATION

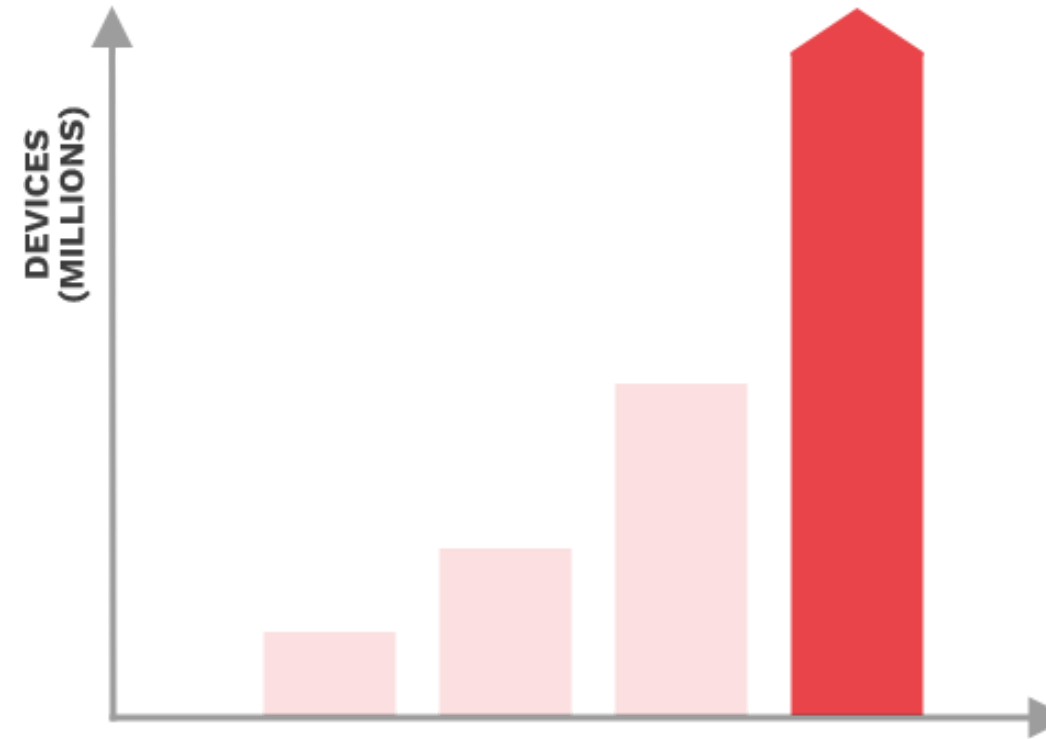
With the advanced (multivariate) version of ZONOS 24insight, excellent forecasts for wind and solar energy production can be achieved. Especially for renewables, precise forecasting is important to account for the volatile generation capacity and provide the power as planned.



INCREASE OPERATIONAL EFFICIENCY IN WATER SYSTEMS

ZONOS 24insight makes precise predictions in water systems. This allows to reduce operating costs through the efficient use of pumps and optimal pressure management.





MULTI-UTILITY CAPABILITY

The IoT Platform supports a wide range of smart meter types, including electricity, water, gas, heat, and cooling utilities. It is capable of communicating with both residential and industrial meters, offering versatile solutions for various utility needs.

SCALABLE SOLUTION, USED FOR MILLIONS OF METERS

The IoT Platform is capable of handling several billion meter readings per day, with the ability to process and read data in short intervals. Our product team is continuously working on state-of-the-art system upgrades to further increase the volume of daily meter readings.

MULTI-VENDOR AND MULTI-COMMUNICATION TECHNOLOGY SUPPORT

We offer complete multi-vendor and multi-technology integration, providing out-of-the-box capabilities for over 200 different types of smart meters and devices. Our open solution supports any communication technology, ensuring seamless integration across a wide range of devices and systems.





FEATURES

- Real-time point forecasts, including prediction intervals
- Multi-utility support (power, gas, water, heat, etc.)
- Forecast based on current and past time series data
- Special treatment of public holidays
- Advanced forecasting using climate variables
- High forecast accuracy of less than 3% forecast error

ADVANTAGES

- Seamless integration through ZONOS API
- Full access to all data in ZONOS IoT Platform
- Melting analytics & real data by using ZONOS Module ReportPlus
- Upgrade to custom-designed forecast solutions possible
- No additional data cleansing necessary
- Low maintenance costs

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LIVE DEMO

Our [Live demo](#) shows the high forecast accuracy of ZONOS 24insight using publicly available data from the most important European transmission network operators.

The [Live demo](#):

- Demonstrates in real time that ZONOS 24insight creates excellent day-ahead load forecasts, often in the range of 3-4% forecast errors.
- Shows that ZONOS 24insight's forecasts are better than those of most European transmission system operators.

The consumption of power, water, gas and heat results from complex interactions between meteorological and socio-economic factors. Ordinary forecasting techniques usually fail to provide accurate predictions in such a dynamic environment.

ZONOS 24insight has been developed to overcome these limitations. By using proprietary data analysis technologies, 24insight enables accurate predictions for critical infrastructures, even when consumption dynamics are high-dimensional and strongly nonlinear.

The share of renewable energies is growing rapidly worldwide. Predicting wind and solar energy is difficult, as the production depends not only on local weather but also on the condition of the systems and possible self-consumption. Classic forecasting techniques usually fail in such complex situations. The extended (multivariate) version of ZONOS 24insight was developed to provide accurate forecasts for such situations. This enables network operators to better manage their systems and maintain a high level of grid stability.

ZONOS 24insight is fully automated and user-friendly. Past time series data are used to generate a forecast model. Real-time forecasts are made by feeding automatically the forecast model with current data. Forecast data are provided digitally for further processing. The forecast and a summary of the performance of past forecasts are shown in dashboards that are constantly updated and storable.





We're Cuculus

Enabling utilities and organisations to successfully transition to a new era of providing and managing electricity, water, and gas.

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