intertek
Total Quality. Assured.

FACT SHEET

INGRID™ ANALYTICS PLATFORM

Detailed statistics and benchmarks on fossil power generation

Intertek has introduced an innovative Total Quality Assurance solution, Ingrid, to help plant stakeholders gain valuable insight into power generating asset performance, efficiency, reliability, and cycling operation metrics, as well as asset life estimates and economics.

Ingrid Overview

The cost and impact of cycling power plants* has increased as new forms of renewable generation are added on the electrical grid.

Most traditional power plants were not designed for cycling operation resulting in equipment damage and therefore increased operating costs and risk of failure.

As a consequence, power generation stakeholders such as operators, owners and analysts are looking to understand the impact of cycling in order to minimize risk and improve cost efficiency.

Ingrid (ingrid.intertek.com) is a web-based online database and analytics platform that utilizes the latest in data manipulation technology to provide detailed operation indicators and benchmarks on fossil power generation.

This information allows customers to quickly gain strategic advantage through the understanding of their relative position in the market and asset life prediction. Intertek offers the largest database on the market** for power plant cycling operations as a result of combining industry data with Intertek's own proprietary modeling software to estimate their cycling operation regimes, cost of operation, reliability estimates and life prediction.

By assimilating data from the operation of thousands of operating fossil generators that reflect past performance metrics, in particular power plant cycling, impact on plant reliability and emissions, Ingrid allows Intertek experts to analyze operations at highly granular timescales and develop forecasts on performance metrics.

Key Benefits

Intertek's industry leading cost-of-power-plant-cycling service has been utilized in some of the world's largest renewable integration studies to understand the economic impact on traditional plants, emissions compliance, and performance risks. Ingrid leverages the data and analytics from this service, helping clients to better understand the nature of their operations, the additional capital and maintenance costs and operating risk, while providing a unique platform for up-to-date and reliable data.

Ingrid's powerful analytics allow clients to quickly and easily benchmark a power plant's operation against other similar plants. Ingrid utilizes smart machine learning algorithms to automate the process of comparing power plants based on any number of parameters, including geographical location, operational metrics, size, age, plant design, fuel, or energy market.

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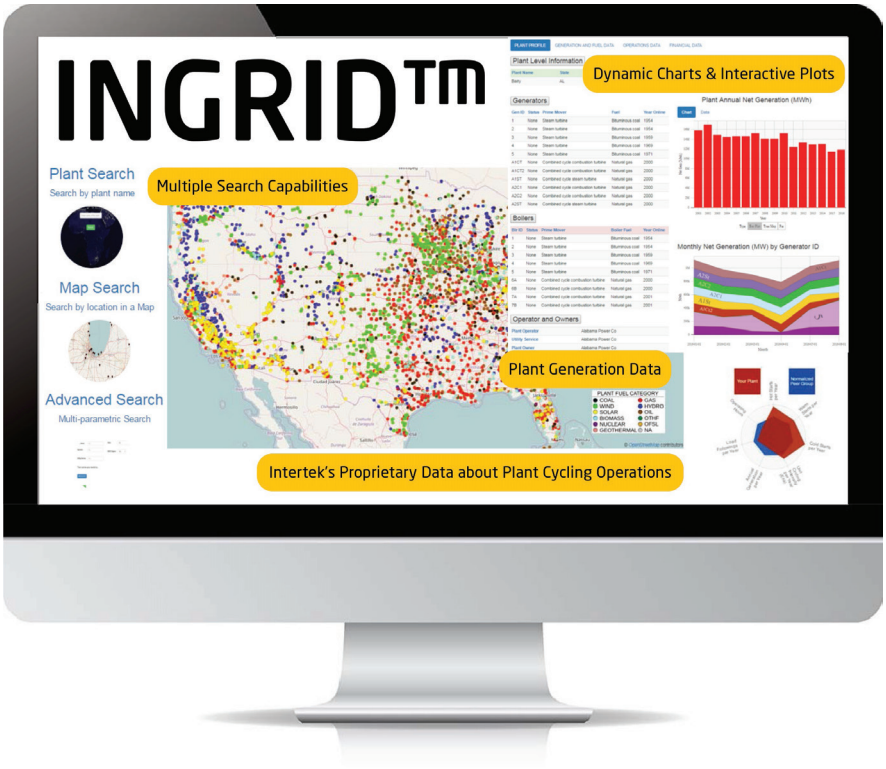
Ingrid is the largest database on the market for Power Plant Cycling Operations combining public data with Intertek's proprietary data about plants and their cycling operation regimes along with generation and emissions data.



Ingrid, a cloud-based platform, provides accurate information and has an easy-to-use query tool with interactive output grids charting and mapping capabilities – shown above.

More importantly, the platform goes beyond benchmarking. Utilizing Intertek's algorithms, estimates of cost of cycling of power plants, operating risk and reliability, as well as remaining life of assets are provided.

Features & Graphical Reports

- Dynamic tables and interactive plots for visual representation of data and easy review or search
- Intertek's proprietary data analysis regarding plant cycling and performance metrics (starts, load follows, and reliability metrics)
- Cost of power plant cycling, reliability, and asset remaining life estimates in an easy to use and familiar format
- Numerous search capabilities (e.g. plant name, location, and specific criteria)
- Ingrid provides aggregated generation for plants, companies, counties, NERC regions and states or for a specific fuel. Information that provide useful insights to energy stakeholder.

*Cycling refers to the operation of electric generating units at varying load levels including on & off, load following and minimum load operation, responding to changes in load requirements – every time a power plant is turned on or off the components go through unavoidably large thermal and pressure stresses which cause damage

** Ingrid is unique in that it utilizes available data, coupled with Intertek's industry leading cost of cycling expertise to analyze power plant operations and estimate operational risk.

FOR MORE INFORMATION

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