POWERSHARE

## REAL-TIME GENERATION DATA SHARING CLOUD SERVICE

More and more power sold by utilities is coming from 3rd party sources. For example, large coal-fired power plants may have multiple owners yet one operator; wind power generated by one company is sold to another; and locally owned solar sites may sell power to public utilities. Due to lack of visibility of production from these 3rd party sources, utilities have to maintain extra production as a buffer. This is particularly a problem when 3rd party supplies come from highly variable sources such as wind or solar.

The KBC PowerShare™ service addresses this problem. It enables the non-operating utility to get real-time access to all relevant data from their 3rd party supplier.

Without the PowerShare service, energy traders lack visibility of all their available power supplies and utilities cannot easily anticipate future availability.

Our PowerShare service enables utilities to access generation and generation-related data from their 3rd party partners in realtime. Authorized customers can access the data through a tiered set of secure web pages, and may even have the data sent directly to a database on their own network, depending on their preference and access rights.

With the PowerShare service, any utility can easily manage their energy trading needs in realtime. They can determine optimum generation levels with analysis of their own ability to make/buy power. This capability reduces wasteful generation buffers and allows utilities to take best advantage of short-term supply opportunities from their partners.
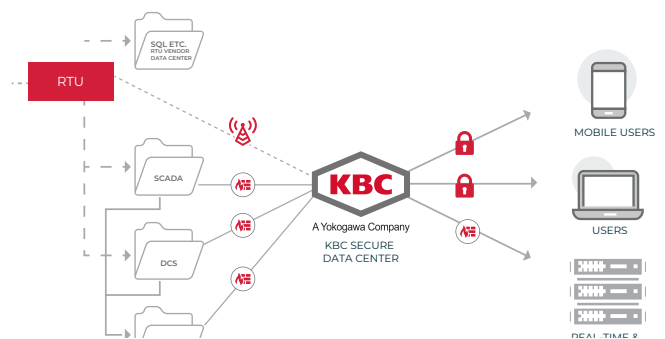
Third party generation data collection

At most generation facilities, real-time data is typically available from a SCADA (Supervisory Control and Data Acquisition) system, DCS (Distributed Control System) or a historian database. Even if a utility has direct access to the generator's own systems (despite the security vulnerability), a lack of industry standardization means that utilities must accept data in the format the generator provides. This means generators would have to support multiple 3rd party users. With over 350 standard interfaces available, the PowerShare service can collect data from all systems regardless of type.

Secure data communication

Most power generators do not allow 3rd parties to access their own internal database systems for obvious security reasons. In order to share data with their partners using the PowerShare service, they therefore approve a single secure path out through their firewall to KBC and then each partner is served data from a mirrored database outside the firewall.

With secure connections to over 300 major corporations, the PowerShare service greatly reduces security vulnerability and prevents unintended or malicious overloading of the source database and network by outsiders.

Secure data storage

Once posted to the central database at the KBC data center, data is stored in its original resolution for access, even years later. The PowerShare service converts data from one company's standard to another, eliminating the impact of differences in data format standards, engineering units and data collection frequency.

KBC makes these changes without altering the original data. In addition, the PowerShare service minimizes any disruption in data availability by using field system data buffering capabilities where possible. With data update rates ranging from 1 to 50,000 values/minute, the PowerShare service has the flexibility, scalability, and reliability to suit all needs.

Secure user access

User access to the power generator's data is by one of two methods. They can access secure web displays from their web browser or via direct data transfer to the user's own database. KBC provides each user with a secure ID and password for web access. They can then login from any internet-connected device. Access privileges control the user's ability to view displays and download history data for analysis. In the direct data transfer case, the PowerShare service exports generation data to a real-time or relational database on the user's network. This is done using standard interfaces and appropriate communications channels according to the user's own IT standards. Users from over 300 major corporations, have accepted the PowerShare service as the de facto standard for allowing 3rd party access to real-time systems in the power industry.

Extensible to 3rd party service providers

The PowerShare service can share real-time production and related data (such as turbine performance and met tower data) to other 3rd parties (for example turbine service companies and forecasting companies). Extending the PowerShare service enables the power generator to reliably incorporate 3rd party service providers into their business processes in realtime.

User configurable electronic alerting

The PowerShare service provides the ability to automatically alert personnel of production changes versus specified targets or limits. Alerts are set on a per user basis and users can receive them via email, cell phone, or pager. Electronic alerting means operating staff can be aware of changes in production and take action to maintain optimal and profitable operations 24 hours a day.

Benefits

Consuming utility

- Reduction in buffered generation capacity
- Improved energy trading performance
- Optimum power make vs buy decision making

Power generator

- Reduced security vulnerability with single data pipeline out through the firewall, regardless of the number of partners
- Reduced partner support costs
- Avoidance of investment in in-house systems

KBC - www.kbc.global | **Find out more:** For more information please contact us now.

0133-PowerShare-DAS-US-072021