

POWER

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COVER FOCUS: Operations & Maintenance

Optimizing Gas Turbines for Peak Reliability and Hydrogen-Burning Capability

InterGen's 810-MW Rocksavage power station is a highly flexible combined cycle natural gas-fired power plant located about 20 miles southeast of Liverpool, England. The station implemented an innovative solution to optimize thermal assets, which also prepared it for the potential integration of hydrogen fuel. The focus of this article is a project that included the major rebuild of a GT26 gas turbine.

Protecting Gas Turbines from High Temperatures, Humidity, and Dust

Increasing temperatures and reduced rainfall are increasing the frequency of dust storms in many parts of the world. Gas turbines require high-quality air to ensure robust and reliable operation. Therefore, stable and predictable air filtration technologies play a critical role in ensuring fuel burn remains low regardless of changing ambient conditions.

FEATURES

Technology Advancements Support Growth in Energy Storage

New technologies that increase the duration, and enhance the safety, of battery energy storage systems are driving growth in the sector. The need for energy storage, both to backstop and balance the power grid, is growing as more renewable energy resources come online.

A Burgeoning Avenue for Hydrogen: Combined Heat and Power

Cogeneration offers a remarkable opportunity for hydrogen development in the power sector, potentially producing onsite power and thermal services with the no-emission fuel. In this article, *POWER* will survey several pilot combined heat and power (CHP) projects around the world that are exploring the use of hydrogen to fuel CHP and power microgrids. *POWER* will also look at market potential and looming challenges.

Securitization: Financing Coal Plant Retirements

Electric utilities are generally expected to recover their investments over the full life of assets. Retiring a coal power plant early may leave undepreciated capital, known as a stranded asset. So, how can power companies move forward with clean energy investments without making customers pay for coal assets that no longer benefit them? Securitization may be the answer.

Power Market Research and Analysis

There are a number of consulting firms that specialize in market research and analysis. Where do they see opportunity in the current markets? We're going to find out.

Intersecting Fleet and Field Services Key When Severe Weather Strikes

Many companies see the value in digitizing operations to improve efficiency. Effective field service management software is helping the power industry by

reducing errors and redundant tasks, and giving fleet managers, field technicians, and back-office operations personnel peace of mind.

Insights from FERC's Annual Report on Enforcement

The Federal Energy Regulatory Commission's (FERC's) Office of Enforcement (OE) recently released its annual report on enforcement. The report highlights activities performed by OE's Division of Audits and Accounting, Division of Investigations, and Division of Analytics and Surveillance. Lawyers from Bryan Cave Leighton Paisner LLP provide insight on FERC's findings.

America—and the World—Needs More Nuclear Power

While there are pros and cons to all power generation types, in this op-ed article, Jeremy Harrell, Chief Strategy Officer at ClearPath and chairman of the board for the U.S. Nuclear Industry Council, suggests Congress should promote policies to accelerate the building of nuclear power projects both at home and abroad.