DIGITALIZATION SPECIAL ADVERTISING SECTION

This Connected Plant supplement will be focused on digitalization, monitoring and diagnostics, analytics, Industrial Internet of Things (IIoT), and related decision-support technologies that are the future of the power industry. This is a great way to showcase your company, products, and/or services in a highly informational and engaging format as part of a comprehensive resource for power professionals worldwide.

You can provide content in the form of case studies, performance data, success stories, or any other content you feel would be best suited for this supplement to educate the power market on your company, offerings, and how to harness digital technology to drive success.

Anyone placing a full page or half page global ad in this issue will receive an additional complimentary “Connected Plant” sponsored content half page.

COVER FOCUS: GAS TURBINE COMBUSTION

Optimizing and Improving Gas Turbine Combustion Systems
A lot of work is being done by original equipment manufacturers to make gas turbines more flexible and efficient. Enhancing combustion is a big part of that process. Designing a heavy-duty gas turbine capable of operating on 100% hydrogen, while keeping emissions in check, may be the holy grail for the industry.

FEATURES

Nuclear Plant Operations and Maintenance Best Practices
To stay in the mix in today’s competitive power markets, nuclear power plant managers have had to innovate. This article will explore what top companies are doing to keep plants operating reliably while holding costs down.

Energy at Its Core—Interest in Geothermal Bubbles Up
Geothermal has long been touted as an energy source long on potential, but short on development. Advances in drilling techniques, along with a heightened appetite for renewable energy among investors, may finally help geothermal become a larger part of the global power portfolio.

Process Control Strategies for Reducing the Minimum Load of Fossil-Fired Plants
Current practices for reducing low-load operating limits in conventional thermal power plants generally center on changes to plant configuration, equipment, and operational practices. Recent Electric Power Research Institute (EPRI) research aims to better understand the potential of process control enhancements, such as load control, sliding
Carbon-Neutral Blue Hydrogen Can Be More Than a Bridge in a Transformed Hydrogen Economy
Many observers consider blue hydrogen a stepping stone to a green hydrogen market, that is, a gray-to-blue-to-green transition. However, the U.S. Department of Energy, Office of Fossil Energy's National Energy Technology Laboratory (NETL) believes it could be much more than that. NETL is making investments across the value chain to help fully realize blue hydrogen's potential.

Here’s How (and Why) to Use Data Validation and Reconciliation Modeling for More Accurate Fossil Plant Performance
It's increasingly important to accurately measure plant performance. The industry has been reliant on traditional monitoring methodologies for years, but there's a new method that promises better results: Data Validation and Reconciliation (DVR) modeling. DVR methods minimize the potential effect of significant bias error in process data.

Are Model and Field Liquid Collection Efficiency the Same?
Modeling wet stacks started in the 1970s to help power plants prepare their existing dry stacks for wet operation, spurred by changes in environmental regulations on sulfur dioxide emissions. This article demonstrates that it is not possible to model droplet trajectories and droplet re-entrainment simultaneously in a scaled physical flow model, thus proving that the liquid collector efficiency results obtained from a scaled model have no correlation to the liquid collector efficiency of the field installation.

How a Coal Power Plant Is Sustaining a Natural Ecological Environment
Firefly larvae may have arrived at the Taichung Power Plant (TCPP) in Taiwan when soil was brought to the facility during the early days of construction. TCPP has long maintained 50% of its land green with numerous trees and other vegetation, while providing low-human-interference areas to help the fireflies flourish. In addition, 73 species of terns have been found around the facility, and more than 5,000 species of birds have been active in the area, carrying out breeding and nesting behaviors.

The Carbon Pricing Debate
More countries and jurisdictions are adopting carbon-pricing instruments, including carbon taxes, emissions trading systems, or hybrids. In the U.S., a debate is underway about if and how a carbon-pricing scheme could effectively balance state-championed clean energy policies and transparent cost-driven wholesale power market competition. This article will take a deeper look at the issue.