FOR BETTER PERFORMANCE

Digitalization with a focus on data-driven solutions

In a unique multidisciplinary approach, ANDRITZ Hydro core technology experts work hand-in-hand with software developers to create predictive maintenance modules for advanced O&M services. ANDRITZ Hydro developers merge decades of expert hydropower knowledge with data analytics methods. This unique combination builds into high-end risk prediction and predictive maintenance services. The development of the software platform Metris DiOMera is completely embedded into our industrial internet/Internet of Things (IoT) strategy with Metris at its heart. Metris is the technology brand of ANDRITZ for digital solutions for both new and existing plants. Together with the software platform, a wide range of technology modules, sensor technology and augmented reality coalesce to form an essential solution for new, cost-efficient services for hydropower installation, operations, and maintenance.

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ANDRITZ Hydro is well positioned in the growing modernization, refurbishment, and upgrade market for existing hydropower plants. We also have a comprehensive portfolio of services for O&M activities that maximize plant performance and enhance protection for valuable assets.

Metris
ANDRITZ Digital Solutions

As the global influence of the IoT expands, new service and maintenance concepts are becoming increasingly necessary. With Metris DiOMera, ANDRITZ Hydro now offers a digital operations and maintenance solution for hydropower plants. Metris DiOMera is a modular and flexible platform that optimally meets specific customer requirements, supports environmental conservation and enhances operations management. Furthermore, the platform provides decision guidance for target-oriented maintenance works. Metris DiOMera tools also consider lifetime management to define the right scope and timing for required maintenance activities in order to maximize plant availability.

NEED SUPPORT FOR OPERATIONS MANAGEMENT?

Based on the long-term competence and experience of our staff, ANDRITZ Hydro is able to provide operations services on site via our local team or remotely from our Regional Control Centre in Italy. They will ensure optimal plant performance and monitor trends and data in order to maximize availability and reliability, as well as anticipate any potential issues. The need for easy accessibility, interconnection, and communication requires the development and deployment of up-to-date cyber security to protect your assets.

MAINTENANCE – WHEN AND WHAT?

Thorough maintenance of all electro-mechanical equipment is key to maximizing the lifetime of a hydropower plant and ensuring its longevity. As a result, the profitability and long-term value of a hydropower plant asset is significantly impacted by the quality of the rendered services. To fulfill these requirements, services such as remote assistance, troubleshooting, and preventive and predictive maintenance are necessary. Services can range from continuous monitoring of relevant key performance indicators to adaptive operational optimization of multiple power plants. Our Metris DiOMera digital solution has a modular and flexible design, and provides decision guidance for target-oriented maintenance, reducing outage times, facilitating logistics, and maximizing production.

HOW DO I REDUCE COSTS AND STAFF?

Manpower concepts for operations and maintenance have to be adapted to meet new market requirements. Even a few years ago, hydro plant O&M was considered one of the core competences of an asset owner and was executed by local staff. Today, the energy market is changing and it is becoming common industry practice to outsource these competencies to a full service provider. Simultaneously, the demand for completely unmanned O&M solutions is growing. Preconditions for unmanned operational concepts are digitalization, a group dispatch center for operations, and powerful digital solutions for predictive maintenance.

ANDRITZ HYDRO REGIONAL CONTROL CENTER IN SCHIO, ITALY

To meet demanding market requirements, ANDRITZ Hydro built the ANDRITZ Regional Control Center (RCC) in order to establish an advanced remote monitoring and control centre for worldwide operations and maintenance that is available across the full ANDRITZ Hydro Group.

The RCC is a state-of-the-art system for remote hydropower plant monitoring using advanced tools, including our digital platform Metris DiOMera. Sophisticated analysis, machine-learning algorithms, statistical analysis within the ANDRITZ Hydro expertise and knowledge are integrated into this platform to anticipate major failures, to trigger a real predictive analysis for maintenance activities, and to produce optimized operation instructions. Finally yet importantly, full remote operation is also one of the main features and service provided by RCC.

Today, top modern technological tools are deployed within our O&M business models in order to support our clients in reducing their OPEX, preventing critical issues and maximize the annual generation of their assets.

Our RCC delivers 24/7 operations support, offering rapid solution-oriented analysis services and providing technical assistance for any issue customers may have during their daily on-site operation activities.

A dedicated O&M department has also been established to back-up the required services of the RCC and to fulfil the activities we have been contracted in the most professional way both in terms of competence and time reaction.

The RCC is fully ready and running host data, signals and power plants from all regions right across the world. This empowers business opportunities for all our locations throughout the ANDRITZ Group, and includes the latest in cyber security protection.