

Making renewable energy more efficient – The role of the Center of Expertise (CoE) in technical optimization

We at re:cap global investors ag, a leading asset manager for institutional investors, are convinced that in-depth expertise and specialized skills are crucial to successfully meeting the challenges of the energy transition. Our Center of Expertise (CoE) plays a central role in developing and preserving our technical leadership position in the renewable energy sector and sustainable investments.

The bundling of comprehensive in-house technical knowledge in the CoE team is a decisive unique selling point that sets us apart from other operators and investors. The direct availability of this know-how within our own company enables us to make more efficient decisions, respond quickly to technical challenges and drive sustainable optimization. This in-house expertise gives us a clear competitive advantage, as we operate independently of external service providers, which makes us more flexible, cost-efficient and successful in the long term.

Maximum plant efficiency:

A particular focus is on optimizing the performance of our existing plants. The CoE monitors the operating performance of our wind and solar parks and identifies potential for increasing energy production. This way, we maximize not only efficiency but also the value added by our projects.

One example from the field of wind energy is our initiative to increase the electricity production of our assets by continuously optimizing operating parameters to minimize weather-related efficiency losses. In one specific case, we were able to achieve a production increase of approximately 3% by adjusting the control algorithms of a wind turbine.

Minimizing downtime due to regulatory requirements:

Renewable energy generation must occur “in harmony with people and nature”. To achieve this, compliance with regulatory requirements is essential, but this often leads to revenue losses due to operational restrictions. We continuously rely on the latest technology to implement state-of-the-art technologies that ensure the protection of nature and the environment while reducing downtime. In our wind farms in Germany and France, appropriate systems are already successfully in use.

Monitoring the legal framework:

By continuously monitoring legal requirements, such as the implementation of §31k of the Federal Emission Control Act (BlmSchG) in the context of the gas shortage in Germany, we identify possible optimization potential arising from legal changes at an early stage. This forward-looking approach allows us to respond quickly to new regulatory developments and make targeted adjustments. This not only enables us to further increase the efficiency of our plants, but also ensures that we always act in a compliant and anticipatory manner. This proactive approach strengthens our competitiveness and ensures sustainable, adaptable operations.

Independent plant monitoring:

Our independent monitoring offers additional, cross-plant monitoring that is specifically tailored to the individual characteristics and operating conditions of each wind turbine. Optimized performance monitoring enables potential problems to be identified and rectified at an early stage, resulting in increased efficiency and higher long-term availability of the turbines. This customized monitoring solution complements existing monitoring mechanisms and ensures seamless control and optimization of plant operations.

Strong network – member of the BWE:

As a member of the Wind Surveyors' Advisory Board of the German Wind Energy Association (BWE), re:cap proactively contributes to its work to actively shape the further development of wind energy. The BWE is the largest wind energy industry association in Germany and is committed to promoting wind power as a central component of the energy transition. It represents the interests of companies, operators and service providers in the political, economic and public arenas. Through lobbying, consulting and networking, the BWE supports the expansion of wind energy and creates favorable framework conditions for the industry.

Conclusion: – Efficiency meets innovation:

Our CoE team stands for excellence in the field of technical optimization of renewable energy. With our work, we not only contribute to the economic viability of the projects, but also to a more sustainable and efficient energy supply. We are proud to make an active contribution to the energy transition and to drive innovation.

Authors

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