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Top 10 Energy Storage Consulting/Services Companies in Europe - 2019

Energy, or in simple terms, electricity is the lifeblood that flows through the veins of business to power a substantial and exponential development of any industry. However, to ensure its continuity, companies need to place emphasis on the latest trends and technologies that are driving the energy storage market. Availability of financing, suitable regulatory methods, innovative business strategies, and up-and-coming energy projects are just a few of the techniques that initiate growth and sustain for long-term.

One of the major trends in the energy storage landscape is the shift from non-renewable, traditional thermal power plants to renewable energy sources such as solar and wind. Such a transformation is expected to show a result that in tandem with the increasing need for ancillary services. From scheduling and dispatching of energy storage systems, controlling the power and voltage within a certain range

to ensuring loss compensation and energy storage system protection, ancillary services play a crucial role

Currently, like any other software, energy storage systems too can be provided and utilized as a service. While previously, the complexities around cash flow and new business models were avoided by investors, ESaaS is proving to be a promising technology to finance and grow the industry.

As CIOs plan to adopt more renewable energy storage systems and solutions, investing in the right service/consulting provider emerges as the topmost priority for them. While multiple vendors ensure to cater to every demand and needs of firms, CIOs may still face some uncertainty in choosing one particular provider over another. In a bid to address such situation, a distinguished panel comprising of CEOs, CIOs, VCs, and analysts along with the editorial panel of Energy CIO Insights have listed "Top 10 Energy Storage Consulting/Services Companies in Europe - 2019."



Company:
Fichtner

Description:
Fichtner Provides a comprehensive, interdisciplinary range of consulting services for public and private infrastructure service providers in the energy sector

Key Person:
Tilman Herzig
Managing Director
Christian Scholz
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FICHTNER

COMPREHENSIVE CONSULTING FOR ENERGY STORAGE SYSTEMS

The growing momentum of renewable energy generation today—powered by robust energy storage systems—will overtake fossil fuel power generation in the foreseeable future. However, the transition to renewable energy sources and distributed energy systems requires a great deal of specialized technological knowhow and engineering expertise which companies such as Fichtner can provide. Following its founding in 1922, the company was mainly involved with the design of thermal power stations, but over time, Fichtner has seen the focus shifted from conventional power plants to renewable energy power plants coupled with energy storage systems such as hydro storage, thermal storage or electrochemical storage. Today, Fichtner is Germany's leading independent engineering and consulting company, and it continues to remain at the forefront, be it in terms of utilizing innovative technologies or providing engineering advice for public and private infrastructure developers.

At Fichtner, specialists in four different sectors—Conventional Energy, Renewable Energy & Environment, Water & Infrastructure, as well as Consulting & IT—work together under one roof. “Our fields of expertise complement one another and enable us to deploy expert teams at short notice to meet the requirements of a project,” explains Tilman Herzig, managing director of Fichtner. Fichtner provides planning and consulting services across the entire value chain of a project, including



Tilman Herzig

preliminary planning, preparing tender documents and selecting a detailed design as well as providing support during project execution. Fichtner also performs technical due diligences covering all phases of a project thereby identifying any potential problem areas. It has experience with the planning of more than 800 MW of electro-chemical battery storage projects.



We are able to deploy multi-disciplinary engineering teams at short notice to meet a project's needs



Herzig cites a large-scale undertaking involving the Jordanian government, planning to connect 1600 MW of photovoltaic energy and 715 MW of wind energy to its national grid by 2021. While the high share of non-steady renewable energy generation will result in lower electricity costs and less dependency on oil and gas imports, it will also present challenges in grid quality and its availability.

To address this, Fichtner has started working with the Jordanian Ministry of Energy and the National Electric Power Company to analyze the potential for battery storage. The storage system can help balance short-term power fluctuations, manage peak demand, and prevent power outages. Additionally,

Fichtner is also providing support to the government agency to implement a 30 MW/60 MWh pilot project that involves developing a BOO (build, own, operate) model, which would enable the grid operator to dynamically dispatch electricity from the electrical storage facility whenever the need arises.

Compared to other companies in the market who are niche players, Fichtner has a broad range of expertise across multiple industrial engineering sectors. This is further complemented by a host of various

IT services offered by Fichtner to its clients for digitalization projects. With the growing interest in hybrid energy supply systems, Fichtner has developed a “Hybrid Configurator” to simulate complex hybrid energy systems comprising battery storage in combination with for example PV, wind, grid and diesel generators. “The tool allows us to optimize hybrid systems to assist clients achieve their technical and financial goals with independent and reliable results,” states Christian Scholz, a senior technical consultant at Fichtner. More than 40 hybrid projects ranging from 200 kW to 100 MW load have already been successfully executed using this tool in more than 25 countries. Fichtner is already involved with research projects addressing issues related to a data-driven energy industry, including energy storage solutions and other areas that are gaining significance for the future. **EC**



Christian Scholz