

Understanding The Risk Of Disruptive Technology

BACKGROUND

The strategy group at a global oil and natural gas producer wished to develop a series of assessments of emerging technologies, business models, and representative companies that posed threat to demand destruction for its established oil and gas commodities. After an initial assessment of the energy technology landscape, the client and Fuld + Company jointly determined that grid scale energy storage represented a significant emerging threat and should be better understood from both a technology maturity and a competitive standpoint. Working with Fuld + Company, the client learned the technology advantages, the cost advantages, the current use cases of grid scale energy storage as well as the key drivers and business models employed by firms offering the technology. With this knowledge, the client used this baseline to track deployment progress and to gauge the potential for displacement of natural gas.

CHALLENGE

Client executives were aware of the growing penetration of renewables on the grid and believed this trend was driving interest in, if not actual demand for, grid-scale energy storage. No formal study had been conducted to support this hypothesis and the client was not familiar with the underlying technology options or the improving economics of energy storage relative to gas, renewables, or other power generation sources. The client realized that its future strategy should envelope the impact of energy storage technology but was unclear how to characterize the emerging threat and competitive implications for its executives.

APPROACH

To provide insight on the underlying technology, key cost and business drivers, and business models associated with this disruptive technology, Fuld + Company acquired information and data from a variety of stakeholders including technology experts working in academia and R&D functions, various battery cell manufacturers, and commercial firms pursuing energy storage deployments.

After initial evidence gathering, Fuld + Company selected several companies to profile in-depth as representative of various technology options, cost structures and drivers, and business models. Combining market data with the insights generated from the individual company investigations, Fuld + Company produced an analysis of the current state of energy storage and a robust point of view on the direction and pace of the technology and its penetration in key markets. These insights were used by the client in executive-level presentations.

RESULT + BENEFITS

Through this study, the client acquired a clear understanding of the current state of energy storage technology and the drivers increasing its deployment as a grid-connected power source in key markets. This understanding combined with the profiles of key global players helped the client with a meaningful threat assessment of its own fossil fuel based business.

Understanding the cost structure, technology challenges, and business models, the client now has a baseline from which to follow the continued evolution of energy storage and anticipate a shift or change in the pace of this disruptive technology.