

# analyst view

## Fuel Cell Industry Consolidation: Good or Bad?

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*Image: Gretchen Lescher*

During the past year there has been a significant amount of merger and acquisition (M&A) activity in the fuel cell industry with a number of fuel cell companies putting up 'for sale' signs. Is this a sign that the industry is struggling? M&A activity is a mainstay of corporate activity globally with successful instances resulting in access to new markets, increased market share, greater economies of scale and many other benefits. The automotive industry has experienced M&A for many years, alongside close collaborations between companies sharing vehicle platforms. Recent fuel cell-related announcements in the automotive industry highlight this with [Toyota and BMW](#) agreeing to jointly develop fuel cells as part of a wider technology sharing agreement, and [Daimler, Ford and Nissan joining forces](#) to leverage greater economies of scale. In other fuel cell applications, stationary fuel cell companies have dominated recent M&A activity so is this a positive or negative thing for these emerging commercial fuel cell markets?

Established names in the stationary fuel cell sector have been getting out, including United Technologies Corporation (UTC) and Rolls Royce, but this does not mean start-ups are the only players left. Indeed Rolls Royce [sold its interest in fuel cells to Korean conglomerate LG](#) and, with Korea having emerged as a leader in stationary fuel cell system installations and likely to continue so for some time, it is no surprise that large companies remain interested. Cummins, a US engine developer ranked 150<sup>th</sup> in the Fortune-500, has also recently [invested in US-based backup fuel cell manufacturer ReliOn](#), expanding Cummins' portfolio beyond conventional generation. [Mitsubishi Heavy Industries and Hitachi](#) also recently announced

the integration of their power generation businesses and their intent to develop gas turbines, boilers and fuel cells targeting the growing Asian market for electricity generation.

M&A is not just a game for multinational conglomerates however, because acquiring a competitors' intellectual property can accelerate product development, open new markets or help to overcome technological issues. Alkaline fuel cell manufacturer [AFC Energy recently bought the assets of fellow UK business Diverse Energy](#). Diverse's ammonia-fuelled fuel cells contained integral reformers producing hydrogen on demand. For AFC this acquisition increases access to sources of hydrogen for its fuel cells, which contain an alkaline electrolyte and should be tolerant of trace quantities of ammonia. [Ballard bought the assets and intellectual property \(IP\) of IdaTech](#), one of its key customers. Moves of this type can be used to guarantee future business and integrate a company further down its supply chain. With the supply chain for fuel cells still being relatively underdeveloped, taking a stake in its customers may be a good way for Ballard to retain business. The exit of UTC mentioned above provided an [opportunity for ClearEdge Power](#), who possibly saw synergies between its high-temperature PEM fuel cell technology and UTC's phosphoric acid fuel cells. Aspects of each company's IP could be used to improve the respective technologies, open up new markets and even increase the purchasing power of the business through increased economies of scale for certain core fuel cell components. Staxera and sunfire also recently [completed their merger](#), providing a full suite of solid oxide electrolyser and fuel cell technology as sunfire targets the power-to-gas and gas-to-power markets. One of the leaders in the stationary fuel cell sector, FuelCell Energy, is also using M&A to further its goals. It has further diversified its technology portfolio into solid oxide technology through the [full acquisition of Versa Power Systems](#), bought the [IP rights to MTU Onsite's technology](#) and [joined forces with Fraunhofer](#) to facilitate access to the European market.

Even the organisations representing the fuel cell industry have experienced restructuring; the formation of the [Canadian Hydrogen and Fuel Cell Association](#) (CHFCA, January 2009), the [UK Hydrogen and Fuel Cell Association](#) (UKHFCA, July 2010) and the [US Fuel Cell and Hydrogen Energy Association](#) (FCHEA, October 2010) were all the result of mergers between the respective countries' hydrogen and fuel cell organisations. The newly formed entities provide a single voice for the progression of both industries which, as we know, are fundamentally linked; something of increasing importance as the use of hydrogen and fuel cells for renewable energy storage is discussed around the world.

M&A activity will continue in the fuel cell industry, ensuring the best technology is retained and exploited to its full potential. It can allow for more focus on end-users, lead to lower costs and maximise return on investment which is an important consideration in an industry yet to make a profit. Opportunities can also be found in new markets by bringing in the necessary experience. While it can undoubtedly be painful at times it is, and always will be, an integral part of corporate life and should be embraced as such.

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