The Role of Consumers in Energy Industry Innovation

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How might the consumer impact innovation in the energy industry?

There are countless examples of the power of the consumer to affect innovation. In the early 1980s we saw the birth of the personal computer and just ten years later the emergence of the Internet. These two technologies transformed the computer industry from being almost completely focused on serving businesses to one that now served consumers. What happened over the next two decades was an explosion in innovation and the emergence of new global companies such as Microsoft, Google, Yahoo and Apple. This innovation explosion was the direct result of exposure to consumer markets. Niches emerged for new companies to serve newly discovered consumer needs. Countless entrepreneurs were exposed to computing as consumers or students, a trend that was not possible when the technology largely resided in big corporate research and development (R&D) labs. This much richer, consumer driven, ecosystem of innovation continues to sustain significant growth in the information technology industries.

So what might the energy industry learn from this? Clearly there is much that is different about energy production and distribution when compared to information technology. Energy technology is traditionally thought of as centralized and requiring high capital investment. Distribution is complex and difficult. Regulation strongly affects pricing and investment while consumers traditionally have a low level of interest in utilities. All these elements make the consumerization of the industry very challenging. However, a number of factors have the potential to change this accepted view. They point towards increased innovation driven by direct contact with consumers.

The first of these entails a reframing of what the energy industry is. Global warming and resource use are redefining consumer perceptions of energy. Already we see both entrepreneurs and established companies experimenting with new products and services designed to manage consumption. Just as we saw telecommunications change with the advent of the Internet when the traditional telecoms found their control over distribution undermined by newcomers, so here there will be pressure on traditional energy suppliers from companies with a closer relationship with the end consumer.

The second element involves the power of brands to redefine a market and change consumer behaviour. For example, the Prius has made improved fuel consumption sexy in a way that we have not seen before, and new players such as Tesla may take that even further. Using less is beginning to be cool in a way that goes well beyond worthiness. The power of brands to drive emotions and to ultimately change behaviour is an idea that can have great impact on consumer interest and participation.

The third factor is global development and the technology leapfrog effect. India, China and Africa are all building out their communications infrastructure on the back of the cell phone and not the copper wire. Reliable energy is right at the top of the list of requirements for all of these emerging markets and it is easy to imagine that new, lower-cost and decentralized production and distribution concepts might emerge where there is such a clear and large-scale need. This is already happening with water purification and supply in India, another traditionally centralized and slow to innovate sector. Will village-scale renewable energy production allow rural India and China to join the urban centres in rapid economic development?

A fourth factor is the trend towards personalization. This is happening across all categories as consumers demand products and services that more closely and uniquely meet their individual needs. As corporations respond, they develop deeper relationships with consumers based on more detailed knowledge of their behaviours. This cycle of understanding the consumer more deeply to allow the delivery of more specifically appropriate products and services inevitably leads to more innovation.

How might energy sector companies respond to these factors? It is certainly not clear that a wholesale disruption in the market, equivalent to that of the Internet, is about to happen. There is likely to be a long time lag before significantly new production and distribution technologies redefine the current market but that does not mean that it is appropriate to sit and wait. Change is inevitable, and the companies – and regulators – that begin the process of adaptation now are more likely to be significant contributors to whatever new business system develops. Getting much closer to consumers would be a good start. Find ways to understand what is driving consumer behaviour and experiment with new ways of meeting their needs. Invest in innovation in emerging markets. These are the places where the fastest learning will occur. Observe the way companies like Cisco grow by acquiring companies that develop new and strategic technology in their category. Consider making strategic investments in start-ups that have the potential to help reframe the consumer's perception of energy. Invest in brands. Understand their power to effect behaviour. Finally, manage an innovation portfolio that includes longer-term, more experimental innovation that has the potential to be revolutionary in the marketplace.