

Economics and Market Prospects of Portable Fuel Cells

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Paolo Agnolucci

Abstract

This paper reviews the literature on the market introduction of portable fuel cells, i.e. portable generators and microfuel cells. After discussing the benefits of these products, and surveying the projections of their costs and market forecasts, conclusions on the business models of the main actors in the portable fuel cell sectors are drawn. Perhaps because there has been a great deal of imprecision in defining the costs and benefits of portable fuel cells, market forecasts have been in some cases extremely optimistic. It can be concluded that fuel cells will hit the market later than previously envisaged and that they are unlikely to become popular through hybridisation with batteries, i.e. portable chargers. Although microfuel cells are likely to become a mass-marketed product, they first need to become an ordinary one and this will happen only when users will be unable to distinguish between electronic devices powered by fuel cells and those powered by batteries, with the exception of the different amount of energy supplied. Otherwise, portable fuel cells are likely to be confined to a small niche of power-thirsty professional users.