Fuel cell shipments will exceed 5 million units per year by 2013, according to Fuel Cell Today’s latest Industry Review, titled “Fuel Cells: Emerging Markets”. The Review, published on 28th January 2009, reports that 2008 saw shipments of 18,000 units mainly in the portable and stationary sectors, an increase of 50% over the number shipped in 2007. In a series of five year forecasts, the Fuel Cell Today analysts anticipate that fuel cell shipments will substantially increase in key market areas such as uninterruptible power supplies (UPS); combined cooling, heating and power; and fuel cells for portable devices.

The Fuel Cell Today analysts further anticipate considerable uptake of fuel cells in key ‘emerging market’ regions such as India, Latin America and the Middle East. The drivers for change are different in each region, but are underpinned by the common desires to maintain economic growth and to provide power to all inhabitants.

Emerging Market Regions

India is often cited as having huge growth potential, particularly for stationary and transport power. It also has the potential to become important as a manufacturing location for fuel cells. Indian government policies provide a driver for hydrogen and fuel cells in the country, providing targeted support for fundamental fuel cell research and development. There is also a strong commercial need for clean, reliable distributed electricity generation, which could promote the growth of fuel cells in India.

Energy generation and supply is likely to be a significant driver for adoption of fuel cells in Latin American nations, according to Fuel Cell Today. Argentina, Brazil, Chile and Mexico each have policies to bring power to rural and off-grid communities, with Argentina, Brazil and Mexico having specific policies that support the development of a fuel cell industry. However, Fuel Cell Today reports that the potential for generating hydrogen from renewable resources has stimulated most interest to date.

Drivers for change in the Middle East include Emirates such as Abu Dhabi and Dubai looking to diversify their economies into areas other than petroleum, including construction, tourism and potentially cleantech. A second key driver is the need to reduce fresh water consumption and to produce potable water. Buildings are one of the major resource users and design changes are being implemented to address this.

State of the Fuel Cell Industry

Shipments of both stationary and portable fuel cells continued to show steady growth in 2008, according to Fuel Cell Today. Over 80% of new units shipped were fuel cells with platinum-based catalysts, which represents some 10 MW of new installed capacity during 2008.

Drawing on recent developments in the portable fuel cell sector and in fuel cells for back-up power, Fuel Cell Today expects that there will increasingly be a move from a supply-driven to a demand-driven model, particularly in the areas of large stationary combined heat and power (CHP); small to medium UPS and backup power systems for data centres and telecommunications sites; fuel cell toys; auxiliary power units (APU); and, in Japan, micro-CHP (mCHP).

The final section of the 2009 Industry Review publishes a forecast for the five-year period 2009 to 2013 for transport, stationary and portable applications and breaks this information down by electrolyte and region of adoption. There is also a special forecast for each of the three emerging market regions of India, Latin America and the Middle East, and one-page overviews of ten other emerging market regions which could see substantial uptake in the next five years.

Availability of the Review

Copies of the Review are available for purchase, priced £500 / U.S.$1,000 / €750 / ¥120,000, from the Fuel Cell Today website at: http://www.fuelcelltoday.com/events/industry-review or by E-mail: review@fuelcelltoday.com.