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## Hydrogen Fuel Cell Based Energy Production for Domestic Appliances.

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Abstract. A hydrogen fuel cell is a clean form of energy with electricity, heat and water which offer a variety of applications, from transportation to emergency back-up power, can power systems as large as a power plant or as small as a laptop. This paper introduces the working principle and advantages of hydrogen fuel cells and the development progress of hydrogen fuel cells in electrolyte membrane, electrode, and fuel and system structure are elaborated in detail. The hydrogen fuel cells at home and abroad are distributed in distributed power plants. Recent advances in applications for electric vehicles, military and mobile power. With the development of battery materials, improvement of preparation technology and reduction of production costs, this field will have broad market prospects.

Keywords: Energy production, Hydrogen fuel cell, Domestic.