

Applications	Advantages	Disadvantages
electric utility portable power transportation	<ul style="list-style-type: none"> • Solid electrolyte reduces corrosion & management problems • Low temperature • Quick start-up 	<ul style="list-style-type: none"> • Low temperature requires expensive catalysts • High sensitivity to fuel impurities
military space	<ul style="list-style-type: none"> • Cathode reaction faster in alkaline electrolyte — so high performance 	<ul style="list-style-type: none"> • Expensive removal of CO₂ from fuel and air streams required
electric utility transportation	<ul style="list-style-type: none"> • Up to 85 % efficiency in co-generation of electricity and heat • Impure H₂ as fuel 	<ul style="list-style-type: none"> • Pt catalyst • Low current and power • Large size/ weight
electric utility	<ul style="list-style-type: none"> • High temperature advantages* 	<ul style="list-style-type: none"> • High temperature enhances corrosion and breakdown of cell components
<p>*High temperature advantages include higher efficiency, and the flexibility to use more types of fuels and inexpensive catalysts as the reactions involving breaking of carbon to carbon bonds in larger hydrocarbon fuels occur much faster as the temperature is increased.</p>		
electric utility	<ul style="list-style-type: none"> • High temperature advantages* • Solid electrolyte advantages (see PEM) 	<ul style="list-style-type: none"> • High temperature enhances breakdown of cell components