







# Some hydrogen production techniques and yields

Primary Energy	Technique	Temperature (°C)	Yield	Yield after reversion to electricity*	
Gas	Steam methane reforming (SMR)	$750 < T < 900$	 0%	48%	
	Partial oxidation (POX)	$1300 < T < 1400$	 0%	42%	
	Autothermal reforming (ATR)	$1100 < T < 1400$	76%	46%	
Coal	Gasification	$400 < T < 1600$	60%	36%	
Nuclear	Electrolysis of water in vapor phase	$1000 < T < 2500$	40%	24%	
	Thermochemical cycles	$450 < T < 900$	 60%	36%	
Hydroelectricity Wind Geothermal Tides	Electrolysis of water		 0%	42%	
Solar			 6%		10%
			 0%		36%

\* Considering fuel cell with efficiency: 60%

Source: Francisco García Peña (ELCOGAS S.A.) - Conferencia UCLM 29/04/2005