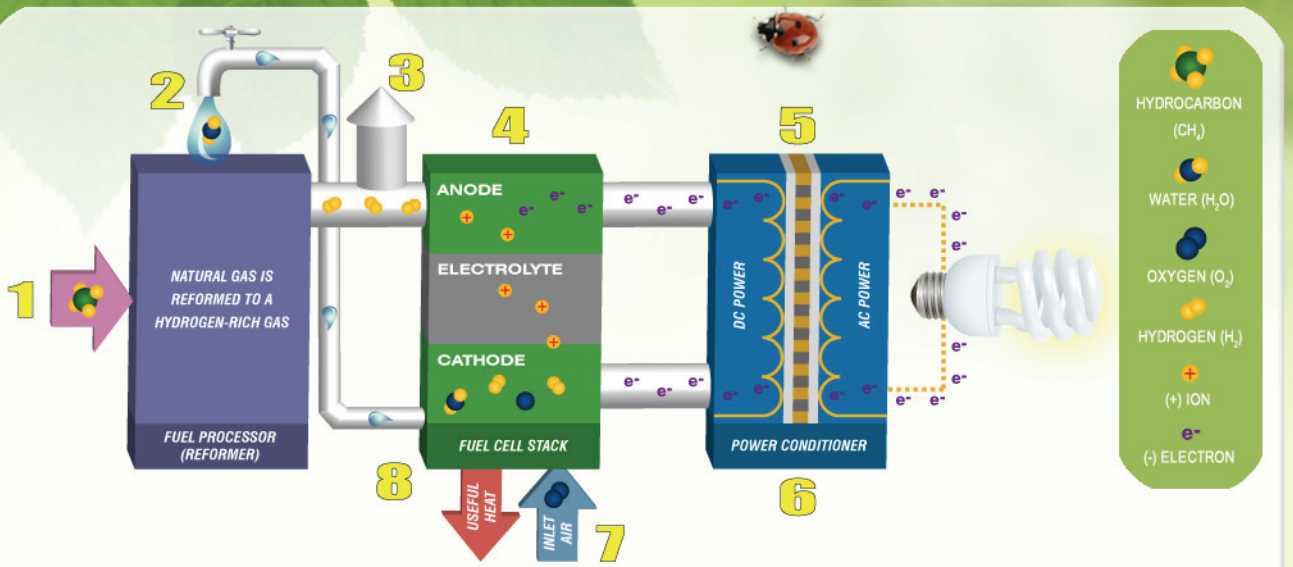
Connecticut Science Center

How a fuel cell works.



1. Natural Gas (largely CH_4) is supplied to the Fuel Cell.
2. Steam (H_2O), as a by-product of the system, is used to reform the Natural Gas into Hydrogen-rich Gas (H_2 Reformate).
3. Clean exhaust is vented. The PureCell® system avoids 273 metric tons of CO_2 emissions each year as compared to conventional power generation.
4. A catalytic reaction converts the Hydrogen (H_2) into Protons and Electrons. The Protons pass through the Fuel Cell Electrolyte.
5. The negatively charged Electrons flow through an external circuit to produce Electricity.
6. DC Power is conditioned to provide high-quality Alternating Current (AC) output power.
7. The Electrons and Protons recombine with Oxygen (O_2) from the air.
8. The remaining by-product is useful Heat.

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