

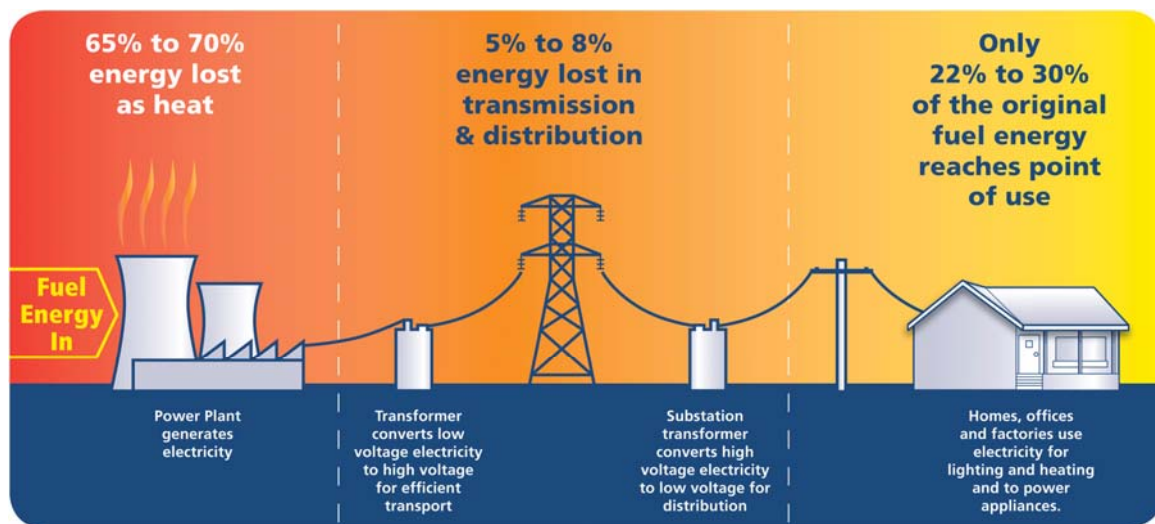


Domestic Applications for Fuel Cells

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Ceramic Fuel Cells (CFCL) is developing fuel cells for domestic electricity generation devices known as micro-Combined Heat and Power Units (m-CHP). These modular generator units are part of a Distributed Generation (DG) network, where there is a large number of smaller 'generators', rather than a large centralised power plant.

The following diagram highlights efficiency losses when electricity is generated by a coal fired power station and delivered to the home through traditional networks in use today. The efficiency losses from centralised generation include; losses from the power plant, high-voltage and low voltage transmission as well as distribution losses.



The following picture shows when CFCL's fuel cell technology is integrated *inside* the m-CHP appliance; electricity is generated up to 60% electrical efficiency at the point of use. Additionally, the household can use the heat from the fuel cell for domestic hot water and/or space heating, which increases the total efficiency from the fuel energy.

