

# Electricity supply to consumers

## From generation to transmission to distribution

The electricity supply system has three interconnected components – generation, transmission and distribution. This diagram shows the typical electrical path from a power station to a home or business.



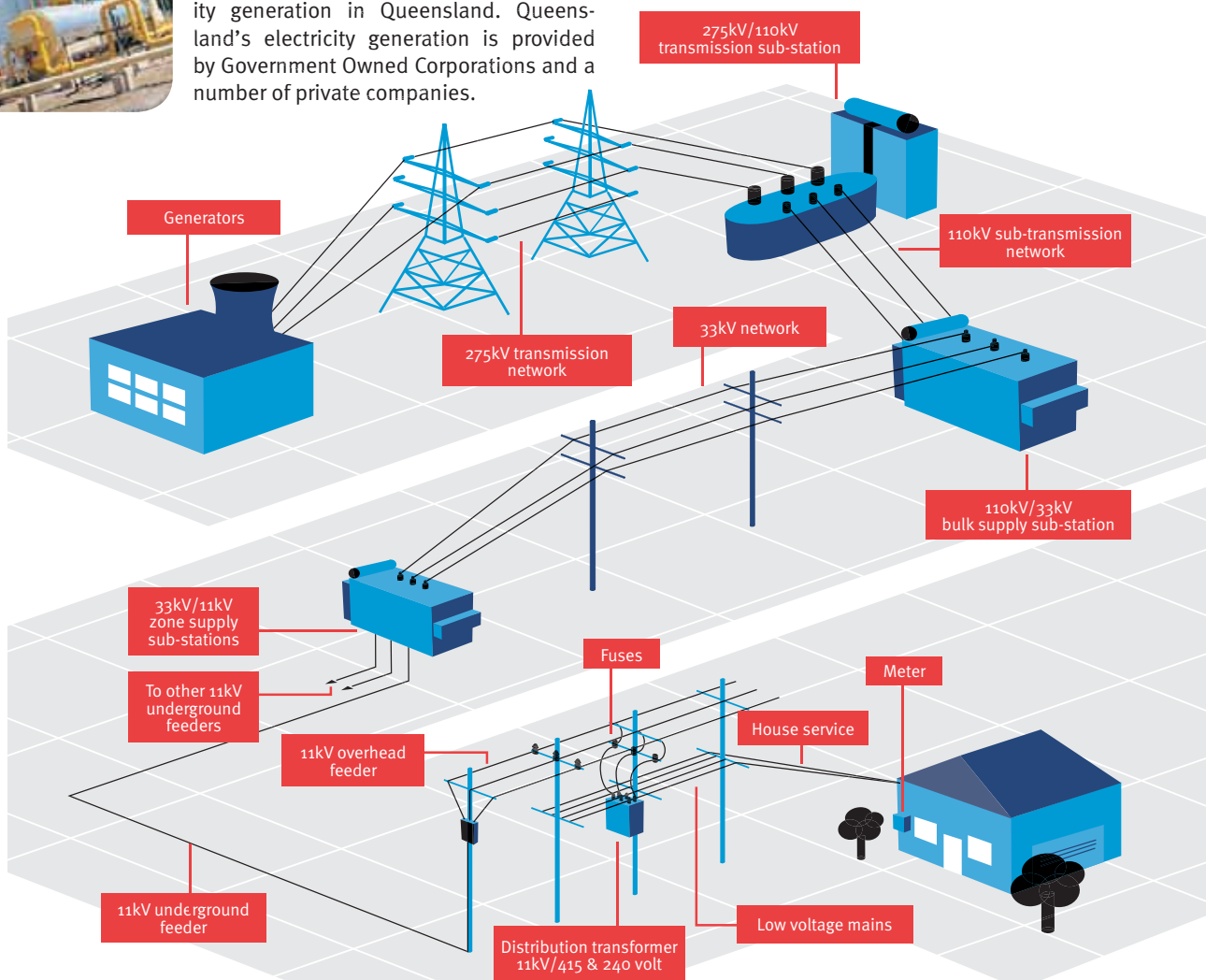
### Stage 1. Generation

Electricity is generated at power stations which use various resources - fuels (coal, gas, oil, biomass), water (hydro), wind or solar. Since the National Electricity Market was established in 1998, \$4.7 billion has been invested in electricity generation in Queensland. Queensland's electricity generation is provided by Government Owned Corporations and a number of private companies.



### Stage 2. Transmission

The electricity is increased in voltage at the power stations and fed into the high-voltage transmission network which transports the electricity to the many distribution networks. The Government Owned Corporation Powerlink owns and operates the State's 6,500 kilometre high-voltage transmission network.



### Stage 3. Distribution

The voltage of the electricity is progressively reduced at a series of sub-stations spread throughout the networks until it is at its final voltage of 240 V for supply to homes and businesses. In most of Queensland, the Government Owned Corporations ENERGEX and Ergon Energy are responsible for the distribution of electricity, with a small area supplied by the NSW distributor, Country Energy. ENERGEX has 46,000 kilometres of powerlines and half a million power poles. Ergon Energy's network consists of more than 140,000 kilometres of powerlines and 900,000 power poles.

