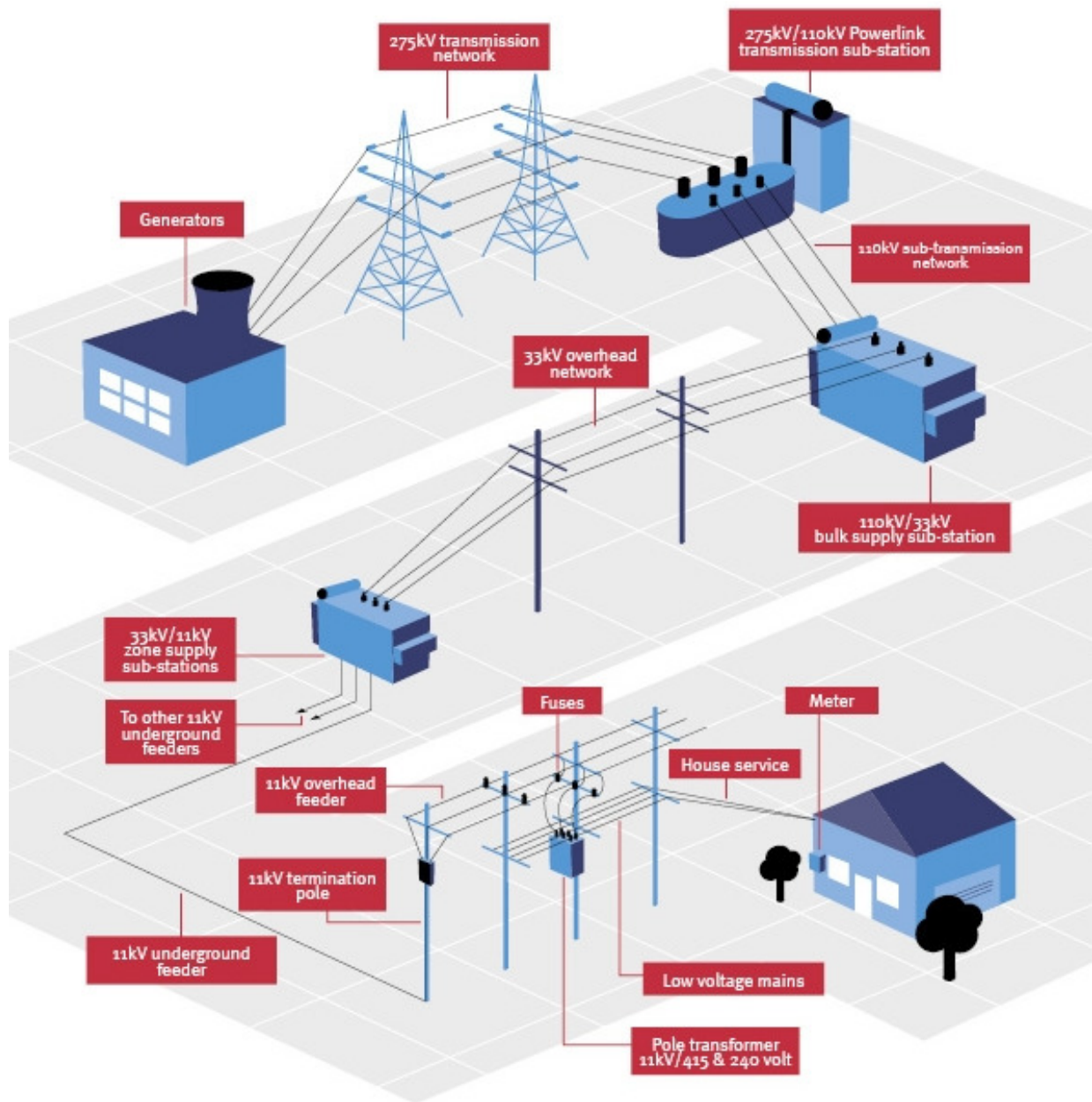


# Electricity Supply to Consumers

## From generation to transmission to distribution

The electricity supply system has three interconnected components – generation, transmission and distribution. The diagram below 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, \$8 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 more than 13 000 circuit 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 very small area supplied by the NSW distributor, Country Energy. ENERGEX has 54 000 kilometres of powerlines and more than 600 000 power poles. Ergon Energy's network consists of approximately 150 000 kilometres of powerlines and a million power poles.