



THE NEM

The NEM or otherwise known as the National Electricity Market, looks after interconnecting the 5 states, as it is difficult to store electricity, they distribute the electricity into the markets as a “pool”. The “pool” or spot market is where supply and demand of power is instantly complimented through a centralised process.

When we switch our lights or appliances on, we rarely stop to think about the marketplace where this electricity is bought and sold. Here we have a brief overview of the process. It will be of necessity brief because a description of the full process would be too complex for this site.

First, we need to explain the mercurial nature of electricity supply and demand. At any point in time the electrical energy generated must equal the energy consumed. Energy must have somewhere to go; always. The result of too little energy generation and too much consumption is a drop in the grid voltage; much the same as how our car headlights dim whilst we are cranking the engine. On the grid the opposite occurs when generation exceeds consumption, which leads to a rise in the grid voltage and potential damage to appliances.

In eastern and south-eastern Australia that contiguous interconnection of generators and consumers in a grid forms a market for the electricity flows. The name of this market is the National Energy Market (NEM) This combination of contracts between parties and a wholesale electricity auction allows market participants to buy and sell energy, with supply and demand being matched in real-time through a coordinated dispatch process, with the cheapest energy providers being put into operation first. This approach is designed to meet energy consumption needs in the most cost-efficient way.



Operating in real time, this process of matching supply and demand operates in largely half hourly intervals throughout the day and night. Retailers we buy our energy from, participate in this wholesale market, paying for energy they have either contracted to buy at a certain price from a generator or purchased on the spot or immediate market at a price which may vary from a contracted price. The retailer then sells us that energy. Because the retailer has an obligation to supply us with energy at a fixed price, he must absorb any unforeseen market price rise.

Also, if the market has been kind to the retailer the price, he pays at a particular instance might have been lower than expected, hence a windfall for the retailer. Until the energy regulator permits a retail price rise the retailer is obliged to sell us the energy at a fixed price and he must absorb, by using various financial instruments

The organisation which controls the NEM is the Australian Energy Market Operator (AEMO)

The AEMO receives its operating rules and authority from the Australian Energy Market Commission (AEMC) which in turn receives its overarching authority and policy from the state governments in which the NEM operates.

In the auction process described above where the lowest cost generators are selected over more expensive ones it is easy to see that those generators which do not have fuel costs via solar and wind, will have a natural advantage over fossil fuelled generators.