

The 600 MW Dual Gas brown coal power station proposed to be built near the old briquette factory at Morwell promises to be the least carbon intensive coal fired power station anywhere in the world. It will achieve this by using natural gas for about 15 % of the energy generated, gasifying the coal and by using heat that would normally be wasted to preheat water to steam in a secondary generator. It will also only use about 10 percent of the water that the existing power stations in the Valley use. Despite these impressive engineering innovations and the cutting edge technology, it will still add about 3 million tonnes of carbon dioxide to the atmosphere every year to produce the 600 MW of electricity. As a comparison it will still produce about 60 % of the greenhouse gas emissions that the Hazelwood power station produces per MWh of electricity produced. This is because the laws of chemistry do not allow otherwise. Coal is mainly carbon. For every kilogram of carbon burnt, 3.67 kg of CO₂ will be produced. On average one kg of dry coal will result in about 2.93 kg of CO₂ released to the atmosphere. Natural gas, which is mainly methane has 4 hydrogen atoms for every carbon atom and when it is burnt will yield far less CO₂ for the same amount of heat produced because the hydrogen is very energy rich. While it might be tempting to think that a 40 % reduction in the production of greenhouse gases is good for the environment, it is still not environmentally sustainable in the long term. The fact is that glaciers were melting when there was just 330 parts per million CO₂ in the atmosphere and today we have 390 ppm. The pre-industrial or natural level was less than 280 ppm. Even if we kept the level of CO₂ at 390 ppm, the chain effects of other warming processes initiated by the increased CO₂ levels, such as increases in atmospheric methane released from melting *tundra*, will result in a global warming equivalent of 450 ppm by 2050. We have virtually locked in at least another 1 to 2 degrees of warming by 2050. Seen in this light, it would be inconceivable that we would consider commissioning more coal fired power stations anywhere in the world. What we need to do is to urgently devise ways of taking CO₂ out of the atmosphere, not adding to the load. It would be much more beneficial to fast track the development of renewable energy technologies and keep the high value farm land with Gippsland's relatively reliable rainfall for food production, not destroyed forever by the open cut mines that turn the environment into a useless waste land.

Dan Caffrey (Member of the Latrobe Valley Sustainability Group)

From Dan Caffrey 2 Dove Ct, Traralgon 3844
Ph 51741635