

Key Production Processes

Mining of brown coal

The project has access to billions of tonnes of coal in the Latrobe Valley, sufficient to run a large-scale plant or plants for decades. Thirty million tonnes of coal per annum would support approximately 3,000MW of power generation, or alternatively, approximately 70,000 barrels of oil per

Gasification

Gasification – a form of partial combustion – will convert dried coal at high temperature into syngas, a mixture of hydrogen and carbon monoxide.

Electrical energy

Energy is consumed but also produced in the process, either directly or by recovery of waste heat.

Brown Coal

Drying

Gasification

Electrical Energy

Liquids

Drying

Brown coal's high moisture count (around 62% in this case) hinders its efficiency and makes it difficult to gasify directly. It must be pre-dried to approximately 12% moisture using a proven technology.

Carbon capture and storage

Captured CO₂ will be compressed for transport via pipeline to a suitable site for safe and secure storage deep underground. Regional studies of potential storage sites have identified the offshore Gippsland Basin as a potential high quality, relatively low-cost storage zone.



CO₂ for storage

Gas to liquids conversion

Syngas will be converted, using Shell's Gas to Liquids (GTL) process, into a paraffinic wax that can be further refined into clean transport fuels (such as diesel, kerosene or naphtha) and/or a wide range of hydrocarbon products.

