FAQs

HAZELWOOD MINE

MINE REHABILITATION

What will the Hazelwood Mine look like when rehabilitation has been completed?

Rehabilitation of the Eastfield eastern batters has started near the area known as the Knuckle. This can clearly be seen from the Princes Freeway, near the edge of Morwell. The rehabilitation of this batter and the Eastfield northern batters (immediately below the Morwell Main Drain) are part of the overall rehabilitation plan for the Mine.

At present, based on the existing technical research and consistent with previous regulatory approvals and the outcome of the Hazelwood Mine Fire Inquiry 2, it is likely a lake fill scenario will be recommended as the final landform subject to final regulatory approvals and community endorsement. To inform this process, a partial pit lake and a full pit lake, representing opposite ends of the spectrum of lake fill options, will continue to be compared as part of technical research and review.

With both options, work will be required at the base of some mine batters to ensure long term stability. This would be in the form of toe buttress dumps where overburden material is dumped and compacted at the base of batters prior to filling the Mine with water. It will be done using the bucket-wheel excavator system, and truck and shovel.

All lake fill options include many possible uses for the area around the surface of the Mine, including woodland, native grass, wetlands, walking tracks, picnic facilities and other public amenities. Regarding water access by the community, this is dependent on the final fill level. For example, a full pit lake may be interconnected with the Morwell River to provide an interconnected waterway, while a partial pit lake would not be interconnected and access arrangements would be limited.

If the ENGIE Hazelwood Mine is filled with water as part of its rehabilitation, where will it come from?

Further work is required to finalise the full complement of water sources. It is possible to fill the Mine with water from the underlying aquifers, natural fill, seepage, the licensed allocation from the Gippsland Water bulk entitlement and managed water from the Morwell Main Drain. Investigations will continue into whether or not the Hazelwood Pondage, Eel Hole Creek and Morwell River could assist in transforming the mine void to a safe, stable and sustainable landform.

How deep is the aquifer?

There are two aquifers - the M1 aquifer, 20 metres below the floor of the Mine and the larger M2 aquifer. There is about 50 metres of M2 seam coal over the top of the M2 aquifer.

Why are you comparing the full and partial pit lake options?

The second Hazelwood Mine Fire Inquiry looked at a range of options for rehabilitation and sought opinions from the community and experts. Following this process, it was concluded a partial pit lake or a full pit lake would be the most technically feasible and practically achievable rehabilitation land form, delivering the most beneficial end uses.

Countries like Germany, where brown coal is extensively used for power generation, have rehabilitated many open cut mines by turning them into lakes. A number have surface areas much larger than the Hazelwood Mine. Experience there has shown there is limited risk of geotechnical instability if the mines are filled as quickly as possible, drawing on all available water sources.

How long would it take to fill Hazelwood Mine?

This depends on the final option for rehabilitation. A partial lake relying on pumping from the aquifer only would take a relatively short time of about 6 years, while a full lake using a range of water sources could take more than 10 years.

Prior to flooding, at least 4 years of rehabilitation and stability work would need to be completed.

If you use the Hazelwood Pondage to fill a lake, what will happen to it?

The pondage was built more than 60 years ago to provide a water source for cooling the Power Station. However, the dam wall was not built to the stringent design standards that apply today for such a large body of water, so there is a risk to the long term stability of the wall. The pondage area could be returned to its original natural state, which was farm land with a creek running through it. Under this model, ongoing risk would be mitigated and only low maintenance required.

Will the Morwell River be diverted to help fill the Mine?

This is a possibility that requires further consideration and Government approval. Consistent with learnings from 25 years of German mine rehabilitation experience, using rivers to fill mine voids and then remain interconnected to the mines has provided a quick transition time to a safe, stable and sustainable landform. It also requires minimal ongoing management. The benefit of options that created an interconnected water system is that overall water quality improves with a constant flow-through. This will be further explored as part of ENGIE's future proposed work.

Is it fact that you have been trialling native grasses around the Mine?

ENGIE is committed to the ongoing preservation and enhancement of indigenous vegetation. It is proposed this vegetation will form part of the recreation areas around the rehabilitated Mine. We have already used native grasses such as kangaroo grass and wallaby grass as part of the northern batters rehabilitation and they have also been used for rehabilitation of Hazelwood's overburden dumps for many years with great success.

Will ENGIE commit to additional money for rehabilitation over and above the existing bond?

The previous bond of $73.4 million was calculated based on Hazelwood operating until 2034 and rehabilitation taking place after that. The estimate is now $439 million, due to the closure date being brought forward to 31 March, 2017. However, the company remains committed to ensuring the full rehabilitation of the Mine which means returning it to a safe, stable and sustainable landform.