To The Independant Planning Commission, NSW.

I am a citizen writing to let the Commission know of my strong objection to Russell Vale Underground Expansion Project.

The Department of Planning could not have picked a more, with respect, a more ludicrous project to recommend to for approval by the IPC. I am not a technical person, but a self funded retiree. Even I can see that this project flies in the the face of all sensible rules by which society (business) operates. I wonder by what means, and I know a report has been written, does the Department of Planning and Wollongong Coal expect this project to make a profit or even be financially viable given the present parlous financial state of the Company. Under what financial guarantees, if any, would this Expansion be allowed to go ahead? Woollongong Coal has admitted to liabilities of over a billlion dollars and losses of $379.00 over a year. It also says that it cannot pay for the estmated $215 million required for current site rehabilitation. Government bonds only equate to $7.5 million. I wonder how Woollongong coal is in such an abysmal financial state. As such it has been delisted from the Stock Exchange and so let down its shareholders and let go of many employees, many of whom apparently worked for them without decent pay. It has failed in its obligations to the government to whom it owes rehabilitation costs, rents and other levies. Also there have been incidents of significant water contamination due to inadequate mine infrastructure. The Russell Vale Colliery is currently, in a Care and Maintenance state and its managers have warned that they could maintain this state for only up to 10 years. Does the state government really expect that this Company could be saved by further expansion?

There are other really important factors that the commission needs to consider in its deliberations about whether the mine expansion can go ahead.

I feel sorry for the miners who currently have employment with the company and who would lose their jobs if the mine was permanently closed or this expansion did not go ahead. Unfortunately for these employees the problems this particular project extend beyond employment considerations. Yet, miners must be well aware that mining jobs are not for life, as are very few jobs these days, and recognise the need to transition to other employment. Many of course would already have done that.

The mine is situated in the middle of a small village. As such some residents and their families live only a few hundred metres in some cases from the mine (as I saw on Day 1 of the video presentations to the Commission). Residents complained of particulate, fine dust and toxic air pollution from the mine affecting theirs and their families health. Others worry about the noise and air pollution effects of ongoing 24 hour truck movements to and from the mines.

The mine is located within a sensitive area of the Sydney Water catchment. Up to 5 million people of Sydney and the greater Sydney region are reliant on this water. They do not need large volumes of water required by the mining process to be taken from their precious water supply, especially now as Australia has become much more prone to drought. Nor do they need to be exposed to the potential and possible irreparable risk of contaminated water leaching into their drinking water supply. Ian Wright, a water scientist who took part in the video presentations to the IPC, made the point that problems of water contamination are very serious, noting that even closed coal mines continue to release dangerous levels of contaminants including heavy metals for many, many years after operations cease. He cited instances in this happening in UK and in NSW. In the latter, he reported that a mine which closed 23 years ago was still discharging contaminents into Wilderness areas. Ian stressed the need for a detailed study of current contaminants in the Bellambie creek and Lagoon, as the only data collected so far is totally inadequate, limited to measurements relating to phosphorants and nitrogen. In response to a question from the panel as to whether ato be reverse

osmosis process could deal with the problems of contamination, Ian agreed but said there is still the question of what to do with the waste.

Australia is the largest exporter of coal in the world and the third largest fossil fuel exporter in the world. When Australia's exported mostly coal and other fossil fuels are burned overseas the amount of "carbon dioxide produced is higher than the emissions of nearly all the world's biggest oil and gas producing nations like Iraq and Kuwait" (Nick Kilvert, ABC Science, August 2019 referring to a Report produced by the Australia Institute based on an analysis of data released by the International Energy Agency.) So although we are a small nation, the Institute believes that we need to also consider the amount of CO2 potential that Australia exports. There is universal agreement on the role of fossil fuels in contributing to global climate change. In this context the Australian government should plan to wind down mining activities not expand them, especially in this case where the extraction of coal is complicated by the coal seam's close proximity to urban areas and location under a critical drinking water catchment. No-one expects coal mining to disappear overnight, but authorities now need to reflect a willingness to prioritise, and reduce mining activities that are less efficient, and/or more expensive financially and in terms of greenhouse emissions. The claim that the type metalurgical coal present in the Russell Vale underwater seam is necessary to the production of steel, was interestingly, contested by Dylan Green, who stated to the Commission, that 26% of the world's steel is manufactured without the presence of metallurical coal.

As a person who has a lived experience of living off the grid, using solar energy as the source of electricity for our domestic needs, I appreciate exactly the beautiful simplicity of solar energy production. To build a solar system four main componets are required: panels to collect energy from the sun's rays, a regulator to manage the input from the panels, a storage system and an inverter to convert the electricity to whatever voltage is required. The beauty of this type of energy production is that no matter how small or large your domestic, industrial or grid needs are, the same **few** components are required, though they may be combined or varied in any diversity of ways. This type of power production is safe and clean. The process does it not emit any dangerous toxins into the atmosphere or anywhere else. The most common storage method at the moment is via various forms of battery which are recyclable. The cost of solar panels have reduced tenfold over the last decade. Solar panels are guaranteed to last 25 years at minimum but generally last a lot longer. The International Energy Agency this year rated solar power for the first time ever as the "cheapest" form of "energy in history".

I have gone to trouble of providing the explanation as above, as I do not believe that many people or even mining engineers understand or believe in the viability and efficiency of produced by solar collection. No matter how big or small the system, it is easy to install and maintain. Systems or hubs can be can be safely located near people or animals. There is of course some carbon offset to be considered in the manufacture of components.The common catch cry of fossil fuel enthusiasts, coal and mineral companies is that renewable power is unviable due to a perceived lack of base load power, required to keep a large energy grid stable. Battery storage has always been an option, but currently other forms of storage are being developed as well. A notable successful demonstration of the viability and responsiveness of batttery storage was demonstrated last year by Elon Musk after his company installed a large battery in South Australia. It added stability to the grid while it transitioned of renewable energy. This battery was built in less than 100 days. Since then South Australia has not had to import energy but can export energy to other states.

The fact that there are more Australian houses with solar panels on their rooftops per capita than anywhere else in the world, illustrates that Australian householders, have been quick to realise the benefits of solar power, not least financially. Grid power was becoming much more expensive and a initially generous solar rebate scheme was enticing. Despite diminished rebates Australians still

want solar on their roofs. Perhaps its because we have long hours of and lots of sunlight, perhaps its the ease of installation of these systems, or the desirability of contributing less to carbon levels and climate change. As mentioned prior, there is an increasing understanding of the damage to our health, our water and our air that the mining and use of fossil fuels can cause. Consequently coal mining is losing community approval. The activities of Coal companies everywhere, including Woollongong Coal, are facing increasing community opposition. This opposition acknowledges that transition away from fossil fuel mining and towards renewables should only happen gradually, as people's lives will be affected, not permanently but temporarily, while adjustments are made. However, the case for the Expansion of the Russell Vale Coal mine is seriously compromised, in my view, by a number critical risk factors such as its location under water catchment and its proximity to urban settlement. Incomplete monitoring and management of current contaminants by the operator make it difficult to accurately estimate the levels of pollution that will be caused by the proposed extention of mining activities. Given also the operators hopeless financial position it is hard to see how the proposal would be considered a good financial investment especially when any benefit would need to be traded off against the risk.

I urge the panel to prohibit the go ahead, with or without conditions, for this project.

23/10/2020