Australian Parents for Climate Action Submission to the NSW Department of Planning, Industry and Environment re: Mount Pleasant Optimisation Project (SSD-10418) 17 March 2021

Australian Parents for Climate Action
c/o Environmental Leadership Australia
Level 2, 69 Reservoir Street
Surry Hills NSW 2010

Email: info@ap4ca.org

Australian Parents for Climate Action represents over 14,000 parents, grandparents and carers from across Australia, including 4,300 residents of NSW and the Hunter Electorate. We are Australia's leading organisation for parents advocating for a safe climate. Our supporters are from across the political spectrum, across all Australian electorates, and from varied socio-economic positions. We seek non-partisan responses to climate change and its impacts.

We advocate for Australian governments and businesses to take urgent action to cut Australia's carbon emissions to net zero as quickly as possible. We encourage Australia to take a leadership role on the world stage, leading by example and calling for other nations to take the necessary action to protect our children's futures.

For more information, visit www.ap4ca.org

This submission was prepared by Sydney-based volunteer David McEwen, an independent climate risk consultant, with support from additional members, and approved by Marie Carvolth, Chair of Australian Parents for Climate Action.

Submission

Australian Parents for Climate Action representing its 14,000 national supporters, including over 4,300 in NSW, ***strongly oppose*** this project (and any expansion of fossil fuel extraction) for the following reasons:

1. Its complete incompatibility with NSW and international efforts to limit global heating to the Paris goal of 1.5ºC. Failing to meet this goal will trigger climate tipping points that could condemn current and future generations to runaway climate change.

2. The growing likelihood of the project becoming an uneconomic stranded asset as international demand for coal falls. NSW taxpayers risk being saddled with the substantial costs of environmental rehabilitation of Mount Pleasant and job losses within the Hunter Valley community.

3. Its many adverse impacts on the local environment, including risks to local air quality and water supplies.

1. All Fossil Fuel Use is Incompatible with a Safe Climate

The extraction and consumption of fossil fuels including coal is the principal source of anthropogenic greenhouse gas (GHG) emissions that are causing rapid increases in average global temperatures (a trend referred to as global heating). In turn, that heating is causing climate change. Average global temperatures have already risen to about 1°C above pre-industrial levels, causing a substantial shift in climatic conditions, which is highly unfavourable to biodiversity, food and water security, human health and safety, and the longevity/value of many property assets and infrastructure.[1]

Australia's overriding obligation under the Paris Climate Agreement is to hold "the increase in the global average temperature to well below 2ºC… and pursuing efforts to limit the temperature increase to 1.5ºC… recognising that this would significantly *reduce the risks and impacts* of climate change."[2] Scientists warn that there is a dramatic difference in outcomes between 1.5ºC and 2ºC of warming, and any rational person would conclude that we must do everything in our power to stay below 1.5°C of warming and avoid overshoot.[3] According to the International Panel on Climate Change, net anthropogenic CO_2 emissions must decline by about 45% from 2010 levels by 2030, and reach net zero around 2050, if we are to succeed.[4]

---

[1] NSW Department of Planning, Industry and Environment, 'Impacts of Climate Change'.
[2] United Nations (2015), *Paris Agreement*.
[3] Intergovernmental Panel on Climate Change (2018), Special Report: Global Warming of 1.5°C, Chapter 2, Executive Summary. IPCC modelling estimates that global net emissions must decline by 40-60% (interquartile range) and reach net zero by 2045-2055.
[4] Ibid.

The proposed expansion of Mount Pleasant operations is entirely incompatible with the Paris goal of limiting warming to 1.5°C. According to modelling by the UNEP and partner institutions, global fossil fuel production will have to decline by 6% a year – and coal production by 11% a year – for a 1.5°C-consistent pathway.[5] Clearly (in the absence of a sensible price on emissions pollution) the only way to achieve this is to impose a moratorium on new fossil fuel production, including any expansion of NSW coal extraction, while simultaneously incentivising and accelerating measures to decarbonise the economy.

The proposed expansion is also incompatible with NSW's 2030 target of 35% less emissions compared to 2005, and its 2050 target of net zero.[6] Even if we disregard extra-territorial emissions from the product of the Mount Pleasant mine (which the EIS estimates at 860 Mt CO_2-e), the project itself will be a major direct emissions source, its Scope 1 and 2 emissions equivalent to 0.4% of NSW's current emissions.[7] There are over 8 million people, over 600,000 businesses, and over 1,400 mining sector businesses in NSW, and this *one project* will generate at least 1/250th of the state's total emissions for the next 25-26 years.[8]

Indeed, by the mid 2040s, when the Mount Pleasant project is still planned to be operational, the only activities that should be producing GHG emissions in NSW should be in the agricultural sector if the state is to meet its targets. *All* uses of fossil fuels will need to have been curtailed, starting with thermal coal.[9] The proponent, and more importantly **DPIE, *must* clearly articulate how the project is compatible with NSW's net zero targets**.

Australian Parents for Climate Action and our supporters assert that NSW *cannot* justify or approve *any* new project that increases emissions.

Even if the state is successful in delivering net zero emissions by 2050, the speed at which we reduce emissions is critical. As Figure 1 illustrates, delays in climate action severely impact the effectiveness of these efforts. This is because most GHGs, once emitted, remain in the atmosphere for tens to hundreds of years, continuing to contribute to global heating. It is not a case of flicking off an emissions switch and returning the climate to normal. We will need to "drawdown" and sequester atmospheric GHGs to return concentrations to safe levels. Unfortunately there are currently no commercially viable sequestration methods that can be

[5] SEI, IISD, ODI, E3G and UNEP (2020), *The Production Gap Report: 2020 Special Report*.
[6] NSW Department of Planning, Industry and Environment (2020), *Net Zero Plan*.
[7] MachEnergy (2021), 'Mount Pleasant Optimisation Project - Greenhouse Gas Assessment', Table 2: Summary of Greenhouse Gas Emission Estimates, and NSW Environment Protection Authority (2018), 'Greenhouse Gas Emissions'. According to the NSW EPA, the state's total emissions are 131.6 Mt CO2-e,
[8] NSW business numbers extrapolated from NSW government sources, including NSW Parliamentary Research Service (2012), 'Small Business in NSW: Statistical snapshot and recent developments'.
[9] Climate Action Tracker (2020), *Scaling up Climate Action: Australia*.

scaled to the gargantuan levels necessary to reverse the heating impact of the *50 billion tonnes* of global emissions released annually.[10]

Critically, emissions must be thought of as a cumulative "budget", since most of the anthropogenic GHG's released into the atmosphere since the start of the industrial revolution are still there, contributing to global heating. Rather than focussing on the goal of reaching net zero emissions, we need to have strong interim targets and ensure we limit GHGs each and every year. Winning slowly on climate is still losing, as is highlighted starkly in the graphs in Figure 1.

[10] DW (2018), 'Carbon capture: Expensive, risky - and indispensable?'

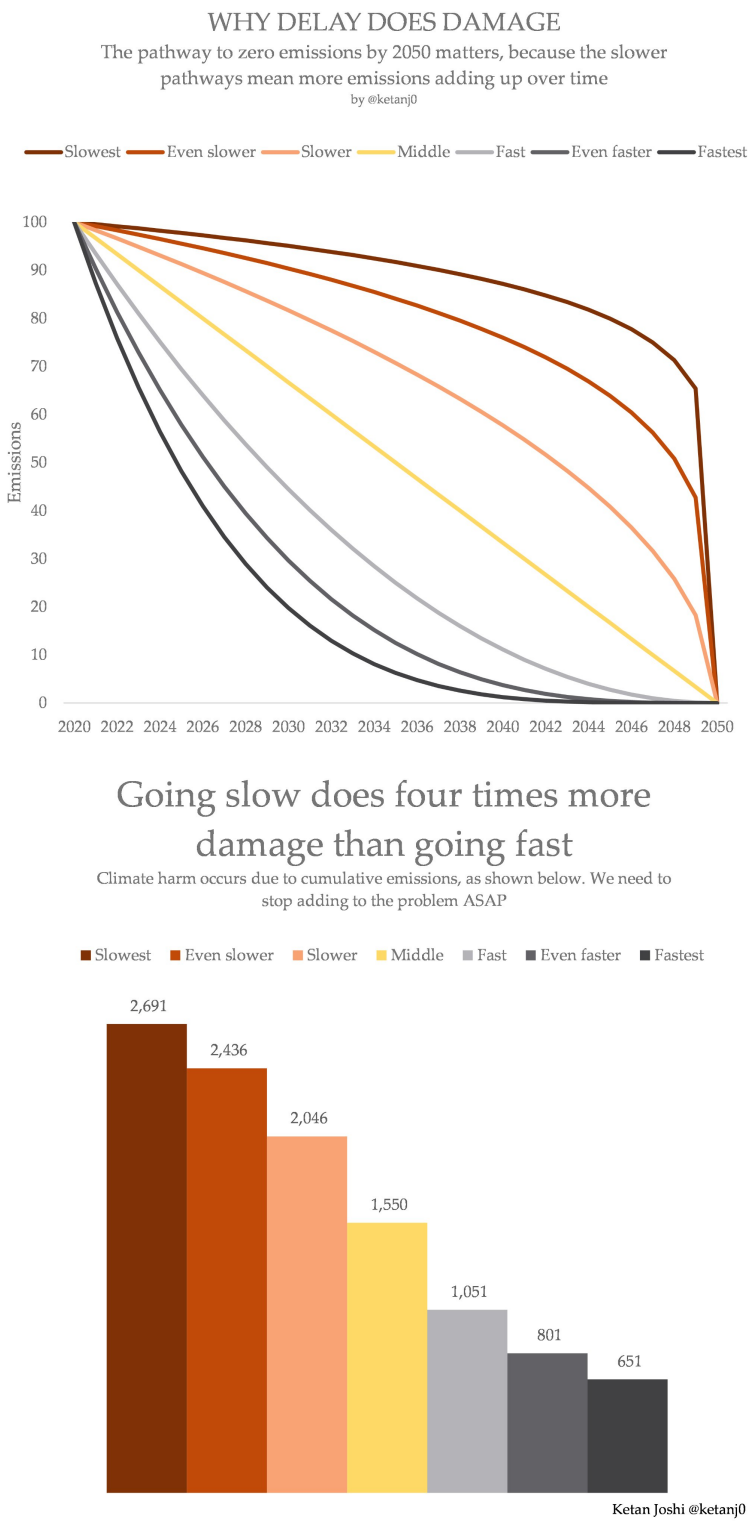

Figure 1: Rapid emissions reduction is critical now. The difference in cumulative emissions between steep cuts now and later is critical. Net zero by 2050 does not limit global temperature rise to 1.5 degrees unless there are steep cuts this decade.[11]

[11] Joshi, K (2021) 'Why Delay Does Damage' .

Scientists say the world can only afford about eight more years at the pre-COVID level of global greenhouse emissions if we are to avoid triggering irreversible natural tipping points such as ice sheet failure (and the resultant multi-metre sea level rise); total loss of coral reefs; release of methane currently trapped in northern hemisphere permafrost; and others that collectively would condemn us to runaway climate change.[12] As former Chief Scientist Penny Sackett and climate scientist Will Steffen have noted, Australia's share of the budget, on a per capita basis, is currently about *two more years at current emissions levels*.[13]

Australia is particularly vulnerable to climate change. Even if the Paris goal is achieved, global heating of 1.5°C will devastate Australia, destroying a majority of our coral reefs, jeopardising the continuity of water and food supplies, and setting in motion unstoppable multi-metre sea level rise over the coming centuries, which will in time inundate our major cities and destroy billions of dollars of coastal infrastructure.[14] The time for business-as-usual is over: we need our businesses and governments to make a real, concerted effort to address these challenges and mitigate risks.

It should also be recognised that NSW's interim emissions reduction target of 35% off 2005 levels by 2030 is inadequate. Applying the IPCC recommendations of a 45% reduction off 2010 by 2030, the minimum target for NSW to be pulling its weight is 79.0 Mt CO_2-e per annum by 2030 (which equates to a 50% reduction if the 2005 baseline is used).[15] Anything less than that is equivalent to asking the rest of the world to do the heavy lifting on NSW's behalf. With emissions abatement, more is better, and reaching net zero and real zero even more quickly has huge benefits.

In light of this – and consistent with the Paris Agreement's ratchet clause (and the increasingly ambitious interim emissions reduction targets being set by other jurisdictions, such as the UK's recent announcement of 68% off 1990 by 2030[16] and the European Union's 55%[17]) – we hope that the NSW Government will increase its 2030 reduction target. *Its capacity to do so will be significantly constrained should projects such as the Mount Pleasant optimisation be approved.*

While we acknowledge that current State and Federal laws are wholly inadequate to constrain greenhouse emissions, decisions to increase the extraction and use of fossil fuels at this point in history will in future be viewed as acts of inter-generational genocide.[18]

---

[12] Nature (2019), 'Climate tipping points - too risky to bet against',
[13] Sydney Morning Herald (2019), 'Our carbon budget is all but spent, but who in Canberra is counting?'
[14] NASA (2019), 'A Degree of Concern: Why Global Temperatures Matter'
[15] Based on NSW emissions data: 2005: 161.8 Mt CO_2-e 35% off: 105.2; 2010: 143.7 Mt CO_2-e 45% off: 79.0. Source: NSW Environment Protection Authority (2018), 'Greenhouse Gas Emissions'.
[16] The Guardian (2020), 'UK vows to outdo other economies with 68% emissions cuts by 2030'.
[17] BBC (2020), 'Climate change: EU leaders set 55% target for CO2 emissions cut'.
[18] The Monitor (2019), 'The all too ugly truth: Climate change is generational genocide'.

2. High Likelihood of Asset Stranding and Job Losses

MachEnergy's proposal to extend Mount Pleasant operations by an additional 22 years to 2048 is economically risky, with global demand for coal forecast to fall in the medium term.

Even the International Energy Agency (IEA) has noted diminished prospects for coal, despite its historical tendency to be over-optimistic towards fossil fuels (as would be expected of a supranational reflecting traditional fossil energy producing countries' interests). In its 'Coal 2020' report, the IEA wrote (emphasis added):

> *Looking ahead to 2025, coal demand is expected to flatten even though three factors exert* ***downward pressure on demand****.*
>
> *First,* ***coal-fired power plant retirements in developed countries accelerate****. This reflects lower electricity demand related to the pandemic and economic slowdown and lower natural gas prices.*
>
> *Second,* ***low-carbon generation technologies****,* ***e.g. wind and solar, gain momentum as costs continue to fall*** *and policy support is sustained. This dims the prospects for coal-fired generation.*
>
> *Third, the perception that coal is the cheapest source of dispatchable electricity has been shaken by* ***low gas prices****. This mindset change is evident even in some Asian countries where coal's primary position in power generation has been undisputed. For example, in 2020,* ***Vietnam, Bangladesh, the Philippines and Egypt downgraded their plans for coal*** *reflecting lower cost renewables and cheaper natural gas, amid increasing concerns about CO2 emissions and building anti-coal pressure on many fronts.* ***Korea and Japan continue to take steps to reduce reliance on coal****.*[19]

The IEA's warning to coal producers is likely to have been understated – the agency has consistently underestimated the astonishing growth in renewables as shown in Figure 2 for PV solar (its record on wind is similar). The latest 'Coal 2020' report was also published prior to the commencement of the Biden Administration in the United States, with its clear mandate to end fossil fuel use.[20] The downward cost trajectory for grid-scale batteries and incredible number of new storage project announcements both in Australia and abroad make it all but certain that thermal coal demand will wane far faster than expected.[21]

---

[19] IEA (2020), *Coal 2020: Analysis and forecast to 2025*.
[20] New Republic (2021), 'Call the Fossil Fuel Industry's Net-Zero Bluff'.
[21] Including CEP. Energy's 1,200MW grid-scale battery project in the Hunter region; South Australia's $3 billion Goyder Renewables Zone, and other major international projects listed for example on https://www.energy-storage.news/list/grid-scale-energy-storage

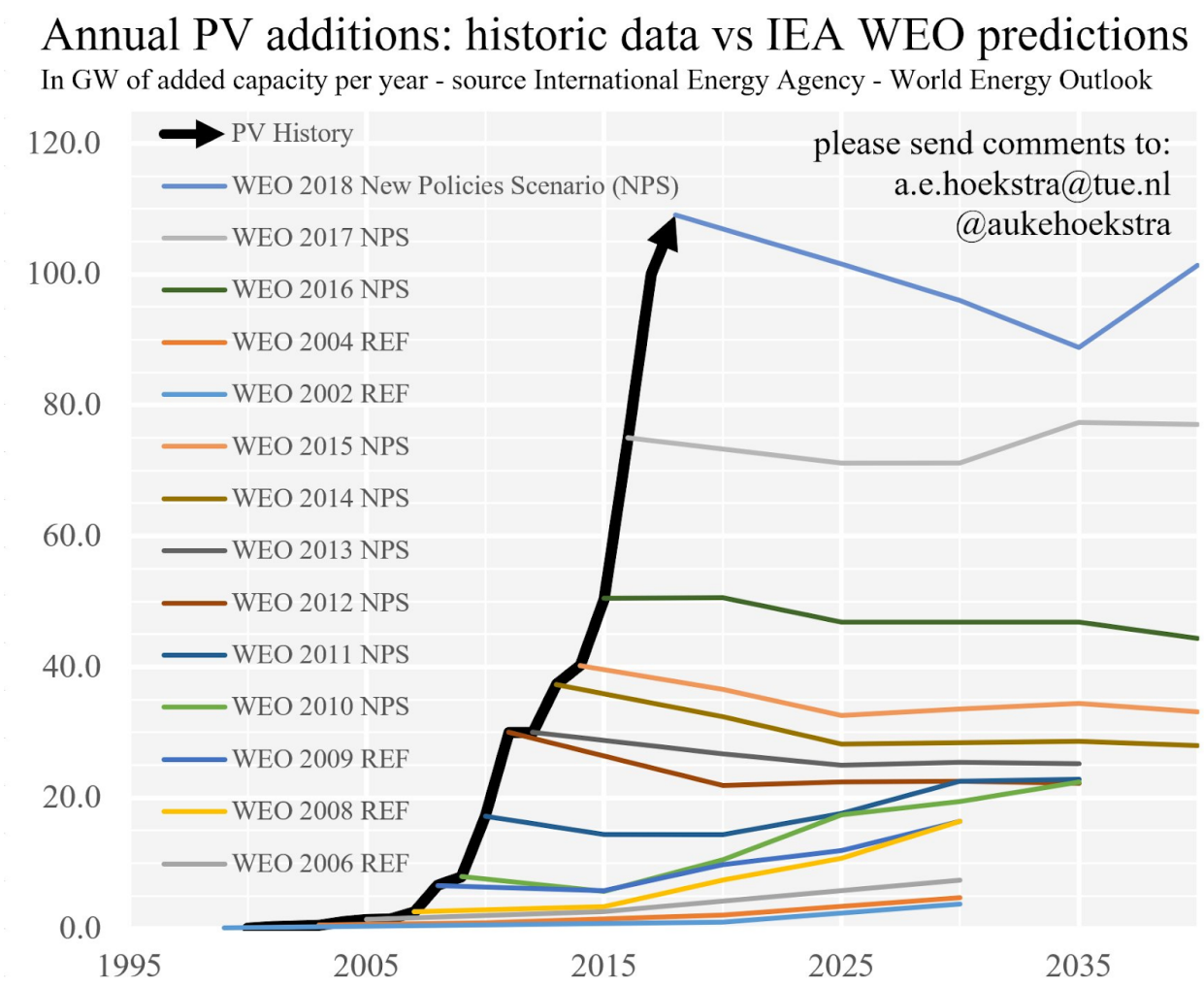

Figure 2 - Growth in PV Renewable Generation Capacity (History) vs IEA World Energy Outlook (WEO) Forecasts over time.[22]

Renewables, including with storage (firming), are now cheaper in many jurisdictions than even existing coal-fired power stations, and their costs are continuing to fall.[23] Renewables can outprice fossil fuel generators on the spot market because their marginal cost of generation is close to zero: they have no fuel costs.

Since the 2020 IEA coal report, there has also been clear evidence that gas – as a supposedly cheap source of dispatchable electricity – is rapidly being overtaken by batteries and other emissions-free renewables. The pace of coal-fired power plant retirements in Australia and around the world is accelerating: in Victoria, for example, the Yallourn plant is now closing four years earlier than planned.[24]

[22] Hoekstra A. (2018), 'Annual PV additions: historic data vs IEA WEO predictions'
[23] World Economic Forum (2020), 'Renewables are increasingly cheaper than coal'.
[24] Sydney Morning Herald (2021), 'Coal plant closures loom large as NSW backs hydrogen for the Hunter'

There is no doubt that king coal has had its day. Fossil industry workers and regional communities in coal areas will be left high and dry without a managed transition supported by sensible government policy (though it is noted that the Hunter Valley community is already working proactively with state government to begin that transition).

Approval of new, multi-decadal projects such as the Mount Pleasant Optimisation will result in asset stranding and bankruptcies. And it's likely that the taxpayers of NSW will be left to clean up the environmental wreckage in the Hunter Valley.

3. Local Environmental Impacts

The proposed expansion of Mount Pleasant operations will impact land use, air quality and water supplies in the local region.

The aerial imagery in Figure 3 highlights the environmental devastation wrought by the Hunter Valley Coal Industry. Each patch of grey represents the scorched earth of an open cut mine: land that could otherwise have been used for farming and viticulture, bushland or tourism. Effective rehabilitation at the end of these mines' project-lives is at risk given collapsing demand for coal over the next several decades.

Coal mining is impacting the health of the Hunter Valley community and its children. Open cut mines create massive amounts of dust including hazardous particulate matter, which leads to a range of respiratory conditions as well as decreasing the quality of life for downwind properties. According to the 2015 'Coal and Health in the Hunter' report, the cost of negative health externalities due to the five coal-fired power stations in the Hunter Valley is $600 million per year.[25] Mining coal has further costs:

> *For the towns of Singleton and Muswellbrook, the burden of health damages is estimated at $47 million in Singleton and $18.3 million in Muswellbrook each year from exposure to fine particles (PM2.5) emitted from coal mines and coal fired power stations into the air.*[26]

Moving from fossil fuels to renewables pays for itself in saved health costs.[27] One in five deaths globally have been attributed to the use of fossil fuels.[28]

Coal mining uses an enormous amount of precious fresh water, as do coal-fired power stations. Black coal mines and power stations in NSW and QLD alone use as much water as 5.2 million people, estimated to be about 120 times the water used by wind and solar to generate the same

[25] Climate and Health Alliance (2015), *Coal and Health in the Hunter*.
[26] Ibid.
[27] Vox (2020), 'Air pollution is much worse than we thought'.
[28] BMJ (2021), 'Fossil fuel air pollution blamed for 1 in 5 deaths worldwide'.

amount of electricity.[29] In one of the driest continents on earth, which is facing increasing water stress due to the climate change that coal use is accelerating, that is completely unacceptable.

Other local environmental concerns include releases of polluted wastewater, affecting groundwater and local water courses.[30]

[29] Renew Economy (2020), 'Australia's black coal industry uses enough water for over 5 million people'.
[30] Sydney Morning Herald (2018), 'Massive impact: Coal mining's effect on the Hunter water tallied'.

Figure 3 - Upper Hunter from Bulga (bottom) to Musswellbrook (top) showing extent and impact of existing open cut mining operations (Google Maps).

Conclusion

*We strongly recommend the Department reject the project. At this critical point in history, when we must be lowering emissions immediately and significantly in order to have any chance of maintaining a safe climate, allowing this project to proceed – or indeed **any** expansion of fossil fuel supply – amounts to an act of inter-generational genocide. Does the NSW Government and its officials wish to be complicit in destroying our children's future health, safety and prosperity?*