

14 February 2018

To the EPA,

RE: Environment Victoria's submission to the Environment Protection Authority's review into the licences of Victoria's brown coal-fired power stations

Environment Victoria is one of Australia's leading environment groups. With more than 40 member groups and tens of thousands of individual supporters, we've been representing Victorian communities on environmental matters for nearly 50 years.

We are very pleased to make a submission to the Environment Protection Authority (EPA) review into the licences of Victoria's brown coal-fired power stations. The three coal-burning power stations in the Latrobe Valley are responsible not only for enormous amounts of toxic air pollution, but they are also by far Victoria's biggest contributors to global warming. As such, effectively regulating their pollution through the EPA's licensing system is of critical importance to the health of Victoria's environment and communities and to our ability to deal with climate change.

Our key concern with this review is that **it must result in limits on greenhouse gases being inserted into the licences of Victoria's three coal-fired power stations**. These facilities are Victoria's biggest CO₂ emitters, and their emissions need to be constrained if Victoria is going to:

- a) Meet our 2020 emissions target of 15-20% reduction on 2005 levels, announced by Minister D'Ambrosio in January 2017;
- b) Have confidence in our ability to meet interim emissions targets for 2025 and 2030 being set under the *Climate Change Act*;
- c) Play a role in global efforts;
- d) Meet the international commitments made by the Andrews government, including the Under 2 MOU and the Paris Pledge for Action, and;
- e) Achieve the legislated target of net zero emissions by 2050.

Continuing to allow unlimited climate pollution from these power stations would be a failure of the EPA's responsibility to protect the environment and public from dangerous pollution and harm, especially given the growing recognition that the EPA needs to play a more active role in managing climate change.

We note that, in carrying out this licence review, the EPA is required by law to have regard to climate change – required by s.17 and Schedule 1 of the *Climate Change Act*. **The EPA will not be discharging its duty to consider climate change if it reviews the licences of Victoria's three biggest climate polluters and does not impose any limits or constraints on that pollution.**

Additionally, we see this licence review as an important opportunity to update limits on toxic air pollution. Currently these limits are weaker than international best practice, exposing communities around the power stations to far more toxic pollution than they need to be, which contributes to a



range of health problems. To that end, we endorse the submission made to this process by Environmental Justice Australia.

We also make recommendations on licence improvements to reduce water pollution, the need for financial assurance for final decommissioning, and on bringing licences into line with community expectations.

Summary of key points in this submission:

1. This licence review is legally required to consider climate change
2. Limits on greenhouse gas emissions are needed
3. The EPA has the power to put limits on greenhouse emissions as part of this review
4. There are a number of ways for implementing and complying with licence-based emission limits
5. Air pollution standards and reporting need to improve
6. Water pollution and water discharges need to be better managed
7. Financial assurances are needed to ensure power stations are ultimately decommissioned safely
8. This review must bring power station licensing into line with community expectations

We would welcome the opportunity to provide any further input that the EPA would like, and we look forward to continuing our involvement in this licence review process.

Regards,



Dr Nicholas Aberle
Campaigns Manager
Environment Victoria
03 9341 8112 / 0402 512 121
n.aberle@environmentvictoria.org.au

SUBMISSION FROM ENVIRONMENT VICTORIA

Below is a summary list of key points and recommendations made in this submission. The full rationale and more detail is provided on the following pages.

- 1. This licence review is legally required to consider climate change**
 - 1.1. The EPA must consider climate change when making decisions on the outcomes of this licence review, under s17 and s20 of the Climate Change Act 2017 (Vic),
- 2. Limits on greenhouse gas emissions are needed**
 - 2.1. The amended power station licences must include limits on greenhouse gas emissions.
 - 2.2. Limits should apply to all greenhouse gases defined in the Climate Change Act: carbon dioxide, methane, nitrous oxide and sulphur hexafluoride.
 - 2.3. These limits should be tightened over time, in order to facilitate the achievement of Victoria's 2020, interim and long term emission reduction targets. Importantly, greenhouse gas emissions should be restricted in a manner consistent with global carbon budgets, meeting emissions targets for 2020 and 2050, and Victoria's commitment to limit global warming to well under 2 degrees.
- 3. The EPA has the power to put limits on greenhouse emissions as part of this review**
- 4. There are a number of ways of implementing and complying with licence-based emission limits**
- 5. Air pollution standards and reporting need to improve**
 - 5.1. Emission limits, as set in conditions LI_DA1, for NO_x, SO₂, and toxic particulate must be significantly tightened, to achieve international best practice emission limits for the protection of human health.
 - 5.2. Limits for PM_{2.5} and PM₁₀ must be set separately from one another
 - 5.3. Strict limits must be set for mercury.
 - 5.4 The EPA should require continuous automatic emissions monitoring from all power station stacks for NO_x, SO₂, PM₁₀, PM_{2.5} and mercury with the requirement that all data be released publicly in real time.
 - 5.5 The EPA should obtain all monitoring data from the ambient air monitoring stations in the Latrobe Valley Air Monitoring Network and make it available on its website
- 6. Water pollution and water discharges need to be managed better**
 - 6.1. The EPA should impose specific licence conditions so that sources of groundwater contamination are adequately managed and, where practicable, cleaned up.
 - 6.2. All groundwater monitoring information should be made publicly available as downloadable datasets on EPA websites.
 - 6.3. Groundwater contamination information, including reports on plume management and migration at Loy Yang and hydrogeological assessments, should be publicly available.
 - 6.4. The EPA should ensure discharges from Loy Yang A are of a quality and regularity capable of benefiting the health of Traralgon Creek
- 7. Financial assurances are needed to ensure power stations are ultimately decommissioned safely**
 - 7.1. The EPA should hold financial assurances for power station decommissioning.
- 8. This review must bring power station licensing into line with community expectations**
 - 8.1. The EPA should review its communication policies and procedures for raising community awareness of pollution incidents and events

1. THIS LICENCE REVIEW IS LEGALLY REQUIRED TO CONSIDER CLIMATE CHANGE

The decision to revoke or amend any condition to which a licence is subject or to attach new conditions falls under s20(9) of the *Environment Protection Act 1970* (Vic). This is a “prescribed provision of an act” specified in Schedule 1 of the *Climate Change Act 2017* (Vic).

Section 17(2) of the *Climate Change Act 2017* requires a person making a decision under a prescribed provision of an Act in Schedule 1 to have regard to:

- a. The potential impacts of climate change
- b. The potential contribution to the state’s GHG emissions
- c. Any guidelines issued by the Minister under s18

Having regard to climate change in this case means the decision-maker must acknowledge that the brown coal-fired power stations are Victoria’s biggest source of CO₂ emissions,¹ which must be limited in order to mitigate the impacts of global warming.

The government is also required by s20 of the Climate Change Act to ensure decisions ‘appropriately take account of climate change’, having regard to the policy objectives and guiding principles. This licence review is clearly an appropriate context in which climate change must be considered, given the severe environmental and social consequences for failing to limit climate pollution from Victoria’s biggest emitters.

In considering climate change in its decision, the EPA should be guided by the need to meet the announced emissions targets for 2020 and 2050, and interim targets that will keep Victoria on a trajectory to net zero by 2050 that is consistent with staying below two degrees of warming.

This licence review is therefore a test case for the effectiveness of this part of the Climate Change Act and the ability of the government to adequately factor climate change into their decision-making processes.

Recommendation

- 1.1. The EPA must consider climate change when making decisions on the outcomes of this licence review, under s17 and s20 of the Climate Change Act 2017 (Vic).

2. LIMITS ON GREENHOUSE GAS EMISSIONS ARE NEEDED

Victoria’s three coal power stations are the state’s biggest climate polluters,² responsible for over 43 million tonnes of CO₂ emissions annually.³ This amounts to over 36 percent of Victoria’s contribution to global warming.⁴

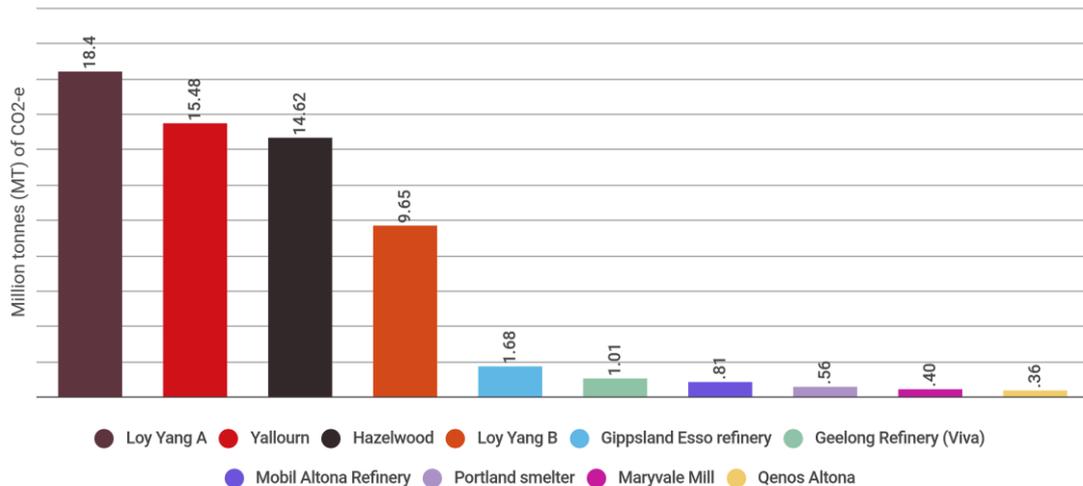
¹ Clean Energy Regulator, “[Electricity sector emissions and generation data 2015-16](#)”

² Emissions for Loy Yang, Yallourn and Loy Yang B power stations are from the Clean Energy Regulator, Electricity sector emissions and generation data 2015-16. Emissions data for other facilities are drawn from the Emission Reduction Fund Safeguard Mechanism reported baselines. These figures are likely to be slightly above actual annual emissions, but there is no better data in the public domain.

³ Clean Energy Regulator, “[Electricity sector emissions and generation data 2015-16](#)”

⁴ Total GHG emissions 119,589,220 Gg, National Greenhouse Gas Inventory, <[ageis.climatechange.gov.au](#)>

Victoria's ten biggest climate polluters (2015-16)



The damage caused by greenhouse gas pollution to Victoria's environment is serious and irreversible. The discharge of millions of tonnes of greenhouse gases is arguably already a breach of the power station licences which forbids the emitting of waste except in accordance with the licence.⁵ 'Waste' is defined in the *Environment Protection Act 1970* to include 'any greenhouse gas substance emitted or discharged into the environment'.⁶ It is therefore an absurdity that the licences do not already include limits on greenhouse gas emissions.

If the EPA does not take this opportunity to put limits on greenhouse gas emissions in the licences of Victoria's coal power stations, not only will it be allowing dangerous pollution but it will make it much harder for the government to meet its short and long term emission reduction targets.⁷

The independent committee that reviewed the Climate Change Act in 2015, made it clear that EPA regulation of CO₂ emissions through licences operations was a clear way for Victoria to achieve our climate commitments:

"The IRC believes that to be a leader in climate change, Victoria should, like many other jurisdictions, adopt measures that reduce emissions at their source. There are a suite of options for doing so, including imposing emissions limits under Environment Protection Authority (EPA) licences, establishing a state-based emissions trading schemeeven the accelerated phase-out or upgrade of high GHG emitting facilities."⁸

It is our position that if the amended licences do not include limits on greenhouse gases, then this licence review will have failed to fulfil the legal obligation to consider climate change.

Recommendations

2.1. The amended power station licences must include limits on greenhouse gas emissions.

2.2. Limits should apply to all greenhouse gases defined in the Climate Change Act: carbon dioxide, methane, nitrous oxide and sulphur hexafluoride.⁹

⁵ See condition LI_G1 on all licences

⁶ *Environment Protection Act 1970* (Vic), s4(1)ab 'waste'

⁷ *Climate Change Act 2017* (Vic) s6, s10

⁸ Independent Review of the Climate Change Act, 2010, 18.

⁹ *Climate Change Act 2017* (Vic), s3

2.3. These limits should be tightened over time, in order to facilitate the achievement of Victoria's 2020, interim and long term emission reduction targets. Importantly, greenhouse gas emissions should be restricted in a manner consistent with global carbon budgets, meeting emissions targets for 2020 and 2050, and Victoria's commitment to limit global warming to well under 2 degrees.¹⁰

3. THE EPA HAS THE POWER TO PUT LIMITS ON GREENHOUSE EMISSIONS AS PART OF THIS REVIEW

The EPA is currently undergoing a \$162.5 million reform process, aiming to transform it into a 21st century environmental regulator.¹¹ The EPA has signalled that it intends to respond to the challenges of climate change¹² and it is clear that this will need to involve measures to limit climate pollution from the highly emitting facilities it licences.

That the EPA can and should regulate greenhouse gas emissions has been confirmed in the updated *Climate Change Act 2017*. Section 101 of the Climate Change Amendment Bill amended the *Environment Protection Act 1970* to give the EPA the power to:

Recommend to the Governor in Council the making of statutory policies and regulations –

- i) to regulate the emission of greenhouse gas substances to contribute to the State's long-term emission reduction target and interim emission reduction targets under the Climate Change Act 2017.*
- ii) to regulate the emission and discharge of greenhouse gas substances to reduce harm to the environment;¹³*

Additionally, current regulations enable the EPA to encourage facilities to avoid and minimise greenhouse gas emissions through protocols contained in the State Environment Protection Policies (Air Quality Management) (SEPP(AQM)).¹⁴ It is well accepted that these policies do not sufficiently facilitate or enforce emission reduction from Victoria's biggest emitters. These policies urgently need to be updated so that the EPA can play a more active role in cutting climate pollution.

However as the amendments to the Environment Protection Act (outlined above) enable the EPA to make policy recommendations to the Governor in Council, there is no reason the EPA cannot recommend a policy of putting GHG limits on power station licences, before the regulations are formally amended. These regulations could be developed in parallel to Victoria's upcoming Climate Change Strategy and whole-of-government and sector pledges, which are not due to be released until 2020.

We are also aware that the EPA would find it easier to regulate greenhouse gas emissions if they were provided with a clear reference point that would allow them to set emission limits. We submit that the 2020 emissions target and targets for 2025 and 2030 (due to be set later this year) will provide such a reference point.

¹⁰ Paris Climate Pledge, Under 2 MOU; *Climate Change Act 2017* (Vic), *Preamble*

¹¹ Response to EPA Inquiry, <www.epa.vic.gov.au/about-us/response-to-epa-inquiry>

¹² Environment Protection Authority, *EPA Organisational Strategy: Our Environment, Our Health*, <<http://www.epa.vic.gov.au/about-us/ourstrategy>>

¹³ *Climate Change Act* (Vic) 2017, s101. Updating *Environment Protection Act 1970*, s13(1)(ga)(ii)

¹⁴ State Environment Protection Policy (Air Quality Management), cl 33,18,19, Protocol for Environmental Management (Greenhouse Gas Emissions and Energy Efficiency in Industry), <www.epa.vic.gov.au/our-work/programs/past-programs/industry-greenhouse-program>

Australia's carbon budget for staying well under 2 degrees of global warming is rapidly diminishing.¹⁵ If the EPA waits to determine its regulatory approach to CO2 emissions from power stations until after the government has finalised its Climate Strategy in 2020, it will result in further delays, at a moment in history when there is no time to waste in limiting global warming.

4. THERE ARE A NUMBER OF WAYS OF IMPLEMENTING AND COMPLYING WITH LICENCE-BASED EMISSIONS LIMITS

The Independent Inquiry into the EPA noted that to be effective, licence conditions must identify what compliance 'looks like' and allow compliance to be accurately assessed.¹⁶ It suggested that effective outcome-focused licence conditions would include:

- viable mechanisms for the regulator to monitor compliance
- practical guidance and advice for business about how the licence conditions are expected to be met

For this reason we offer the following suggestions for how the EPA could ensure compliance with licence limits on greenhouse gases and how the power stations could be guided to significantly reduce their emissions.

Firstly, the EPA could use its power to recommend new policies and regulations to limit climate pollution through this licence review in a number of ways:

- **Annual emission limits:**
 - Similar to the way other airborne pollutants are currently regulated, the EPA could set an annual discharge limit as a licence requirement. As outlined above, in order to be effective, limits would be tightened annually. This would ensure emissions decrease in line with Victoria's current and future interim emission reduction targets and would be consistent with operators' obligations to pursue continuous improvement under cl18(3)(b) of the SEPP (AQM)20.
 - These limits could be adjusted on a five yearly basis to ensure consistency with Victoria's emission reduction targets. The licence amendments for this year could be set in such a way as to ensure the achievement of Victoria's 2020 emission reduction target of 15-20% on 2005 levels. In particular, emissions from the three remaining generators are likely to have increased since the closure of Hazelwood. New limits could initially restrict Yallourn and Loy Yang A and B to their emission levels from before Hazelwood's closure.
- **Emissions intensity limits:**
 - This would involve setting a limit on the emissions intensity of electricity generation at each power station. The EPA has already committed to enforcing emissions intensity standards set out in Victoria's Statement on Future Uses of Brown Coal, and therefore could use a similar approach for existing generators.
 - The proposed emissions intensity limit for new generation has been set at an interim level of 0.45 tCO₂-e/MWh. This is well below the emissions intensity of Victoria's

¹⁵ Stockholm Environment Institute, "[Implications for Australia of a 1.5 degree future](#)"

¹⁶ Independent Inquiry into the EPA, page 231

existing power stations, for example Yallourn is now the dirtiest in the country with an emissions intensity of 1.417 tCO₂-e/MWh (as sent out).¹⁷

- **Limited life derogation:**

- This concept comes from the UK's implementation of the European Union's *Industrial Emissions Directive*,¹⁸ which regulates airborne pollution from large combustion plants. Essentially, plants deemed too polluting are scheduled to close at a date in the medium term future, but in the interim are granted a maximum number of hours they may operate before that time. In the UK, that is 17,500 hours between 2016 and 2023.¹⁹ This option could operate in tandem with an emissions intensity approach. Operators could be granted a maximum number of hours of operation if their facilities fail to meet the set emissions intensity limit.

Operators of coal-fired power stations could comply with requirements to reduce their climate emissions in a number of ways:

- **Improve efficiency:**

- Having a limit on pollution that tightens over time sends a clear signal to operators to improve the efficiency of their facilities. While helping to cut climate pollution, this will have the added benefit of improving cost-competitiveness of their operations and reduce fuel costs.

- **Curtail output:**

- If power stations had an annual limit they must not exceed, operators could monitor their cumulative annual emissions and manage their output accordingly. Electricity generators already do not operate at full capacity all year round and output could be further curtailed at times of low electricity demand.

Consistent with the EPA's new focus on harm prevention, we suggest the EPA work closely with power station operators to determine how emissions can most effectively be reduced at each individual site. This will be most effective if there are real consequences when the power stations fail to curb their emissions. This could be the perfect opportunity for the EPA to exercise its new general duty to take reasonably practicable steps to minimise risks of harm from pollution and waste.²⁰

5. AIR POLLUTION STANDARDS AND REPORTING NEED TO IMPROVE

The coal-burning power stations licensed by Victoria's EPA are responsible for some of the worst air pollution in the country. The three brown coal-fired power stations are the highest emitters of both coarse and fine particle pollution (PM₁₀, PM_{2.5}).²¹ AGL's Loy Yang A power station and mine is the biggest emitter of PM₁₀, with an emissions intensity of more than double the Australian average.²² EnergyAustralia's Yallourn power station is Australia's highest emitter of PM_{2.5}, a pollutant that is

¹⁷ [ACIL Allen report](#) for Department of Innovation, Industry, Climate Change, Science, Research And Tertiary Education.

¹⁸ European Commission, *Industrial Emissions Directive*, <<http://ec.europa.eu/environment/industry/stationary/ied/legislation.htm>>

¹⁹ Energy UK, Industry Guidance, <<http://www.energy-uk.org.uk/policy/environmental-regulation/industry-guidance.html>>

²⁰ *Independent Inquiry Into The Environment Protection Authority*, Recommendation 12.1

²¹ National Pollutant Inventory Data 2015/16 < <http://www.npi.gov.au/npi-data/latest-data>>

²² Environmental Justice Australia, *Toxic and Terminal: How the regulation of coal-fired power stations fails Australian communities*, < <https://envirojustice.org.au/powerstations>> 16.

harmful to human health at any threshold.²³ Loy Yang A also has the highest emissions intensity of sulphur dioxide, which contributes to itching eyes, wheezing, headaches and the onset of asthma attacks.²⁴ Concern has also been raised about power station emissions of oxides of nitrogen and mercury.

Air pollution from coal power generation in the Latrobe Valley is having a significant effect on human health. Research has shown that communities within close proximity of coal power stations have an increased risk for developing cardiopulmonary disease, chronic obstructive pulmonary disease (COPD), hypertension, other lung diseases and kidney disease.²⁵ In 2015 the Latrobe Valley generators were estimated to be creating an annual health burden on the community of \$660 million, using modelling developed by the US National Academy of Sciences.²⁶ This supports the view that existing power station licence conditions on airborne pollution have not been sufficient to protect the community from harm.

We propose the following recommendations to the EPA as a matter of urgency to protect community health through stricter power station licence conditions. In addition, we endorse the recommendations in the submission made by Environmental Justice Australia.

Toxic air emission limits

At present the emissions limits set out in the “discharge to air” table in each licence are much higher than what the power stations will normally emit. This amounts to a failure of the licences to protect the community and local environment from significant amounts of pollution. At present, licence limits enforced by the Victorian EPA are much less strict than limits set for power stations in the United States, China and the European Union.²⁷ For example Loy Yang A’s particle limit is a staggering eight times higher than what is allowed in China.

Recommendations

- 5.1. Emission limits, as set in conditions LI_DA1 for NO_x, SO₂, PM_{2.5}, PM₁₀ must be significantly tightened, to achieve international best practice emission limits for the protection of human health.
- 5.2. Limits for PM_{2.5} and PM₁₀ must be set separately from one another.
- 5.3. Strict limits must be set for mercury.

The consequences for breaching these limits must be severe enough to act as a real deterrent to pollution. Evidence unearthed by Environmental Justice Australia last year revealed that when EnergyAustralia’s Yallourn power station breached its licence conditions, instead of being issued with a fine they were merely required to produce a report outlining their plans for future compliance.²⁸ This approach to breaches of licences erodes public confidence in the role of the EPA. Amendments

²³ Neil Hime, Christine Cowie and Guy Marks, Woolcock Institute of Medical Research, Centre for Air Quality and Health Research and Evaluation (CAR), ‘Review of the health impacts of emission sources, types and levels of particulate matter air pollution in ambient air in NSW

²⁴ Environmental Justice Australia, *Toxic and Terminal*, 12.

²⁵ M Hendryx, MM Ahern, ‘Relations between health indicators and residential proximity to coal mining in West Virginia,’ *Am J Public Health*, 2008

²⁶ *Cleaning up Victoria’s power sector: the full social cost of Hazelwood power station*. (see table B7), note: this may be slightly decreased since the retirement of Hazelwood.
<https://environmentvictoria.org.au/2015/02/24/cleaning-victorias-power-sector-full-social-cost-hazelwood-power-station/>

²⁷ Environmental Justice Australia, *Toxic and Terminal*, 24.

²⁸ *Ibid*, 71.

to licence limits and fines must be capable of incentivising power stations to take real measures to reduce their pollution.

Monitoring of emissions

At present it is virtually impossible for community members to access real time air pollution monitoring data from power stations or from the Latrobe Valley Air Monitoring Network. The LVAMN is an industry group that is not required to provide information to the public.²⁹ Moreover the power stations themselves are only compelled to provide summary data to the EPA. This is highly inadequate. By contrast, in NSW power station operators are required by law to provide data within two weeks to any person who asks.³⁰

Recommendations

- 5.4. The EPA should require continuous automatic emissions monitoring from all power station stacks for NO_x, SO₂, PM₁₀, PM_{2.5} and mercury with the requirement that all data be released publicly in real time. The EPA should ensure data is available as downloadable datasets so the community has access to the information it needs.
- 5.5. The EPA should obtain all monitoring data from the ambient air monitoring stations in the Latrobe Valley Air Monitoring Network and make it available on its website as downloadable datasets.

6. WATER POLLUTION AND WATER DISCHARGES NEED TO BE MANAGED BETTER

We have the following concerns relating to pollution to water from Victorian coal mines and power stations.

Regulation of ash ponds to protect groundwater and rivers from pollution

Ash pond management at Loy Yang and Yallourn mines has been substandard to date. In recent years auditors have found that Yallourn has failed to comply or only partially complied with its licence conditions and verified monitoring programs³¹. Pollution from Yallourn coal ash landfill has additionally been found to have contaminated groundwater with leachate, which could also be contaminating the Latrobe River.³²

In 2015 an EPA inquiry found a ruptured ash disposal pipeline at Yallourn to have caused 8.6 megalitres of ash liquid to be dumped into the Morwell River. This was a breach of their licence and resulted in a \$7584 fine,³³ but the event itself proves that the licence conditions were not sufficient to prevent the harm from occurring.³⁴ Licence conditions should ensure the SEPP water quality standards for both surface and groundwater are maintained at all times.

²⁹ Latrobe Valley Air Monitoring Network, <<http://lvamninc.com.au/>>

³⁰ *Protection of Environment Operations Act 1997* (NSW) s66(1)

³¹ Golder Associates, 'Yallourn Landfills, 53V Audit, Yallourn Ash Landfill, Hard Waste Landfill and Asbestos Landfill' (Audit Report No 117616111-015-R-Rev3, Golder Associates, 17 September 2015) pinpoint <http://apps.epa.vic.gov.au/EnvAuditFiles/53V/71329-2/71329-2_c.pdf>.

³² [Ibid.](#)

³³ EnergyAustralia responds to waste discharge incident (29 July 2015) EnergyAustralia <<https://www.energyaustralia.com.au/about-us/media/news/energyaustralia-responds-waste-discharge-incident>>.

³⁴ Environmental Justice Australia, *Toxic and Terminal*, 71.

Further, there is evidence to suggest that a plume of pollution has been spreading from Loy Yang A's ash pond since 2001, which is when the site was listed on EPA Victoria's priority contaminated site register.³⁵ Lawyers at Environmental Justice Australia have suggested that if this is true then AGL and the EPA have both "failed to control pollution from the power station ash dam for 16 years, causing unacceptable and preventable risks for environmental and human health."³⁶ Licence condition LI_DL1.1 is inadequate.

Recommendation

- 6.1. The EPA should impose specific licence conditions so that sources of groundwater contamination are adequately managed and, where practicable, cleaned up. In particular, management of the Loy Yang Groundwater Attenuation Zone needs to be more stringent than just monitoring the migration of the contamination plume.

Availability of water monitoring data

At present water monitoring data is not collected in real time and is not easily available to the public. As with air pollution, this information is critical to the health of our waterways, businesses and communities so should be as accessible as possible to the public.

Recommendations

- 6.2. All groundwater monitoring information should be made publicly available as downloadable datasets on EPA websites.
- 6.3. Groundwater contamination information, including reports on plume management and migration at Loy Yang and hydrogeological assessments, should be publicly available. This information should be communicated in a way that is meaningful to the public, for example the EPA could issue a regular report card on how the power stations are managing water pollution and how water quality targets are being met.

Waste water discharges for keeping environmental flows

Discharge from Loy Yang has the potential to benefit waterway health in the Traralgon Creek. However, the water must be of suitable quality and released in a pattern to mimic variable natural flows. Traralgon creek has strong amenity value and is of importance to the community because it flows directly through the town. The EPA should liaise with West Gippsland CMA to achieve the best environmental outcomes for the creek.

Recommendation

- 6.4. The EPA should ensure discharges from Loy Yang A are of a quality and regularity capable of benefiting the health of Traralgon Creek

7. FINANCIAL ASSURANCES ARE NEEDED TO ENSURE POWER STATIONS ARE ULTIMATELY DECOMMISSIONED SAFELY

Currently the EPA requires financial assurances on the licences of Victorian power stations. However at this stage, assurances only cover landfills and ash ponds. Rehabilitation bonds managed by the

³⁵ Priority Sites Register (31 May 2017) Environmental Protection Authority Victoria <<http://www.epa.vic.gov.au/your-environment/land-and-groundwater/priority-sites-register>>.

³⁶ Environmental Justice Australia, *Toxic and Terminal*, 43

Department of Economic Development, Jobs, Transport and Resources extend to the full and proper rehabilitation of the mines, but not the decommissioning of the power stations.

This is a regulatory blind spot that the EPA has an important opportunity to fix. We are learning from Engie's experience of decommissioning Hazelwood that power station decommissioning is a sensitive and expensive process. At present there is a risk that, after operations cease, either the public will be left with the cost of decommissioning three large power stations, or that the Latrobe Valley community will be left with ageing, deteriorating and increasingly unsightly industrial infrastructure.

Recommendation

7.1. The EPA should hold financial assurances for power station decommissioning.

8. THIS REVIEW MUST BRING POWER STATION LICENSING INTO LINE WITH COMMUNITY EXPECTATIONS

The EPA has identified the need to ensure that "licences are kept up to date with changing science, environmental conditions and *community standards*."³⁷

The science is clear on the contribution of greenhouse gas emissions from coal fired power stations to global temperature rise and other climatic changes. There is also strong evidence demonstrating that the Victorian community wants to see stronger government-led action on global warming. For example, research published by Sustainability Victoria last year, found that 91 percent of people think the State Government should be acting on climate change.³⁸ And a further 93 percent think businesses and industry should be taking action.³⁹

Submissions to this licence review process were not made open to the public, but were intended by the EPA to be limited to selected key stakeholders. Given this, and given the EPA's recognition that it needs to ensure licences reflect community standards, Environment Victoria conducted a short survey of Victorians on our contact list. Over 1500 people completed the survey in January 2018.

Key findings include:

- 99% of respondents agree that the EPA should have a role in limiting climate pollution in Victoria
- 98% agree that there should be limits on how much greenhouse gas Victoria's coal power stations are allowed to emit
- 99% agree that brown coal power stations should face strict limits on toxic air pollution, in line with international standards and the protection of human health
- When asked how they felt about coal power stations producing almost half of Victoria's climate pollution but facing no limits on how much CO2 they can emit:
 - 63% felt angry
 - 6% were surprised
 - 26% were angry and surprised
 - 2% were neither
 - 3% were 'other'

³⁷ EPA, Approvals Review Final Report, [recommendation H](#)

³⁸ Sustainability Victoria, [Victorian's Perceptions on Climate Change report](#), 5.

³⁹ Ibid.

While we acknowledge that this is not scientifically accurate quantitative polling, the almost unanimous support in this survey for both greenhouse gas limits and tighter air pollution limits shows that many Victorians will expect this licence review to resolve both of these failings.

Almost 1200 of the respondents also provided additional comments. We would be happy to supply these to the EPA to provide a flavour of how members of the community feel about licence limits for coal-fired power stations.

Link between licencing and a just transition for the Latrobe Valley

The Victorian community also has strong expectations around the need for a Just Transition in the Latrobe Valley economy. Just transition is a holistic concept that encompasses the sharing of costs and benefits of the clean energy transition fairly across the Victorian economy. This means that provisions to facilitate community-led economic development to eventually replace the coal power stations in the Latrobe Valley should be pursued alongside policies that secure a liveable climate and environment for future generations of Victorians.⁴⁰

The Latrobe Valley transition is a complex and evolving process that will involve many stakeholders. The EPA's role in the transition must therefore centre on the achievement of environmental justice. This could mean investigating policies of restorative justice, such as acknowledging the economic impact of air pollution on community health. Accordingly the EPA could direct the proceeds of any licence fees or fines back into the community. For example towards local health clinics, and the Latrobe Valley Regional Hospital, perhaps specifically to programs that treat the high rates of respiratory illnesses and stroke, linked to toxic pollution from the power stations.⁴¹

Improved public communication of pollution incidents

We have heard feedback from the Latrobe Valley community that information sharing about land and groundwater contamination has been poor. Communities have an urgent need to know when they are at risk. Improvements in communications to local residents and businesses, for example text message alert systems, should be explored.

Recommendation

- 8.1. The EPA should review its communication policies and procedures for raising community awareness of pollution incidents and events.

SUMMARY AND NEXT STEPS

Environment Victoria submits that the key outcomes for this licence review to deliver are:

- The addition of licence limits for greenhouse gases
- Tighter standards for toxic air pollution
- Improvements on water pollution and discharge management

The total absence from current licences of limits on climate pollution is an aberration that the EPA must correct if it is to be considered a modern regulator. Including licence limits on greenhouse

⁴⁰ To see more about Environment Victoria's position on Just Transitions please see our report Life After Coal, Pathways to a Just and Fair Transition < <https://environmentvictoria.org.au/2016/10/12/life-coal-report/>>

⁴¹ This idea was developed by local health and transition group Voices of the Valley

gases is entirely consistent with community expectations of how large polluting facilities will be regulated. Failure to add these licence limits would also mean the EPA has failed to meet its legal requirement to consider climate change as part of amending a licence.

Thank you for the opportunity to make a submission to this review. We look forward to continuing to participate in the ongoing improvement of environmental regulation of coal power stations in Victoria, both through this licence review process and more broadly.