

LICENCE TO POLLUTE

WHY CLIMATE POLLUTION IS THE
UNFINISHED BUSINESS OF REFORMS TO
THE ENVIRONMENT PROTECTION AUTHORITY



November 2017



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The Environment Protection Authority (EPA) has the job of protecting Victoria's environment from pollution and waste, but it is yet to address the biggest environmental threat of our time: climate change.
Photo courtesy of Jodi Magi

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Environment Victoria acknowledges that we live and work on Aboriginal land and that this country was cared for over tens of thousands of years by traditional owners before colonisation.



01

EXECUTIVE SUMMARY

VICTORIA'S CLIMATE CHANGE ACT CONFIRMS THAT THE EPA HAS THE POWER TO REGULATE GREENHOUSE GASES TO CONTRIBUTE TO THE STATE'S LONG-TERM AND INTERIM EMISSIONS REDUCTION TARGETS.² IT IS TIME FOR THE EPA TO START USING THIS POWER.

The health of Victoria's environment is protected and regulated by the Environment Protection Authority (EPA) Victoria. The EPA is currently undergoing a \$162.5 million reform process to turn it into a modern regulator, capable of responding to the growing threats to our environment. These reforms are welcome, long overdue and should result in real benefits to Victoria's environment. However the EPA is yet to show that it will tackle the biggest threat Victoria's environment has ever faced – climate change.

Victoria has committed to action to keep global warming to well below two degrees, and the government has set targets for reducing our climate pollution. However we currently have no regulatory mechanism for ensuring we achieve these important targets. Victoria's *Climate Change Act* confirms that the EPA has the power to regulate greenhouse gases (GHG) to contribute to the state's long-term and interim emissions reduction targets.¹ It is time for the EPA to start using this power.

The climate crisis is unfolding before our eyes and will inflict damage that will be felt across Victoria's environment, economy and communities. Much of Victoria's climate pollution can be attributed to a small number of industrial facilities, all of which are subject to EPA licencing. The EPA monitors pollution at these facilities by placing conditions on airborne emissions and discharges of waste and water. However the EPA currently places no restrictions on polluting our climate

In order to make the necessary cuts to climate pollution to meet Victoria's commitments to keeping global warming safely below two degrees, we need to reduce emissions from Victoria's biggest climate polluters. This report explains why and how the Victorian Environment Protection Authority (EPA) should put limits on climate pollution.

¹ *Climate Change Act* (Vic) 2017, s101.

² *Climate Change Act* (Vic) 2017, s101.



02

A MODERN ENVIRONMENTAL REGULATOR IGNORING CLIMATE POLLUTION

The EPA's purpose is to protect the environment and people by preventing and reducing harm from pollution and waste. Despite this mandate and a significant reform process to modernise the regulator, the EPA is failing to monitor or prevent pollution to our climate, which is a major threat to both environmental and human health.

2.1 REFORMING VICTORIA'S ENVIRONMENTAL WATCHDOG

Throughout 2015 and 2016, the EPA was subject to an independent inquiry to help turn it into a modern environmental regulator. The government accepted all 48 recommendations of the inquiry, allocating \$165.2 million over five years to modernise and strengthen the EPA.

These reforms were well overdue and much needed. While Victoria's EPA was ground-breaking when it was established in 1971, in recent years it has lacked the necessary powers to deal with the big environmental challenges of our time.

Key points of reform included:

- changing the focus of the EPA to preventing harm rather than responding to pollution
- greater ability to hold polluters to account, including speedier prosecutions and stronger penalties
- creating a specialist environmental public health team
- strengthening the role of the EPA in mine regulation and strategic land use planning





Above: Loy Yang A brown coal power station in Victoria's Latrobe Valley, Victoria's largest source of climate pollution. Photo Nicholas Aberle

DESPITE THE GOOD PROGRESS THESE REFORMS REPRESENT, THEY WILL REMAIN UNFINISHED BUSINESS AS LONG AS THE EPA FAILS TO CLARIFY WHEN OR HOW IT WILL BEGIN REGULATING AND LIMITING CLIMATE POLLUTION.

- creating a Chief Environmental Scientist to strengthen the scientific basis of the EPA's regulatory work
- building a whole-of-government approach to improving environmental justice (how pollution and environmental conditions affect people in different socio-economic circumstances and locations).

The EPA has since developed a new five-year strategy to implement their new strategic direction. This strategy recognises climate change as a threat, but includes no detail on actions it will take to address it:

"We will be responsive to the challenges presented by population growth, production expansion, new technologies, emerging chemicals and evolving threats such as climate change.

As a modern and agile regulator, Environment Protection Authority will work alongside community, business and government, to protect health and the environment by preventing the harmful effects of pollution and waste. We make that promise to the people of Victoria.³

– Our Environment, Our Health, EPA Organisational Strategy 2017

Despite the good progress these reforms represent, they will remain unfinished business as long as the EPA fails to clarify when or how it will begin regulating and limiting climate pollution

2.2 THE EPA HAS THE POWER TO REGULATE CLIMATE POLLUTION

In addition to the inquiry into the EPA, Victoria's Climate Change Act was also subject to an independent review in 2015. The Independent Review Committee (IRC) made it very clear that EPA regulation of CO₂ emissions through their licences operating was a viable way for Victoria to achieve our climate commitments.

³ Environment Protection Authority, *EPA Organisational Strategy: Our Environment, Our Health*, <<http://www.epa.vic.gov.au/about-us/our-strategy>>



“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.

In particular, the IRC notes that while it is clear that the Environment Protection Act 1970 provides the EPA with the power to regulate GHG, the provisions of the State Environment Protection Policy (Air Quality Management) limit the EPA’s capacity to bring about significant reductions in emissions. For this reason, the Act needs to clearly remove any ambiguity around the EPA’s authority to do so.”⁴

That the EPA can and should regulate greenhouse gas emissions was then confirmed in the updated *Climate Change Act 2017*⁵. Section 101 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 emissions reduction target and interim emissions reduction targets under the Climate Change Act 2017⁵; and

(ii) to regulate the emission and discharge of greenhouse gas substances to reduce harm to the environment;⁶

Now is the time for the EPA to act on this.

⁴ Independent Review of the Climate Change Act, 2010. P 18

⁵ *Climate Change Act* (Vic) 2017, s101.

⁶ Amending *Environment Protection Act 1970*, s13(1) (ga)(ii)



03

VICTORIA'S CLIMATE PROBLEM

⁷ Dr David Alexander, Professor Will Steffen and Professor Lesley Hughes. (2017) *Hot and Dry: Australia's Weird Winter*; Bushfire and Natural Hazards CRC (2017a) *Southern Australia Seasonal Bushfire Outlook 2017*. <<https://www.bnhcrc.com.au/hazardnotes/38>>

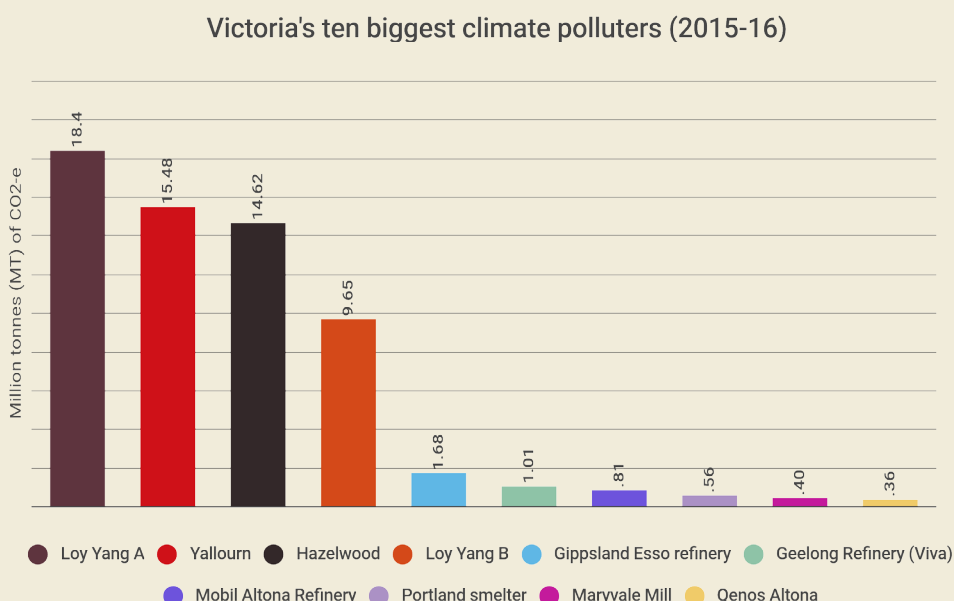
⁸ PR Ross Garnaut, Garnaut Climate Change Review, <www.garnautreview.org.au>

⁹ 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's Safeguard Mechanism's *reported baselines*. These figures are likely to be slightly above actual annual emissions, but there is no better data in the public domain. This is a problem in itself. The public has the right to know how much different facilities contribute to climate change.

Victorian communities are already experiencing drier winters and hotter summers. If we continue on our current path of 4 degrees global warming, and even if we limit warming to 1.5 – 2 degrees, Victoria will be forced to deal with climate impacts like heatwaves, crop failures, coastal erosion and bushfires.⁷ As Professor Ross Garnaut concluded in his famous review: “the failure of our generation on climate change mitigation would lead to consequences that would haunt humanity until the end of time.”⁸

Despite these imminent threats, Victoria's climate pollution has continued to rise. While Victoria does have a legislated commitment to reducing our emissions by 2050, large climate polluters responsible for those emissions have no constraints on how much CO₂ they are permitted to pollute.

Figure 1. Emissions of Victoria's ten most polluting facilities.⁹





3.1 VICTORIA'S BIGGEST CLIMATE POLLUTERS

Much of Victoria's climate pollution can be attributed to a small number of industrial facilities (Figure 1). The largest and most obvious are our three remaining coal-burning power stations – Loy Yang A, Loy Yang B and Yallourn – which are by far Victoria's largest sources of CO₂. Other big polluters include refineries, gas power stations, chemical plants and the Portland aluminium smelter. Emissions from these facilities and other big polluters will need to be actively constrained if Victoria is to make a meaningful contribution to global efforts on climate change.

Above: Pollution and steam from AGL's Loy Yang A power station, Victoria's biggest contributor to climate change.

Photo Flickr User Hourann Bosci licensed under CC

¹⁰ National Greenhouse Gas Inventory, <ageis.climatechange.gov.au>

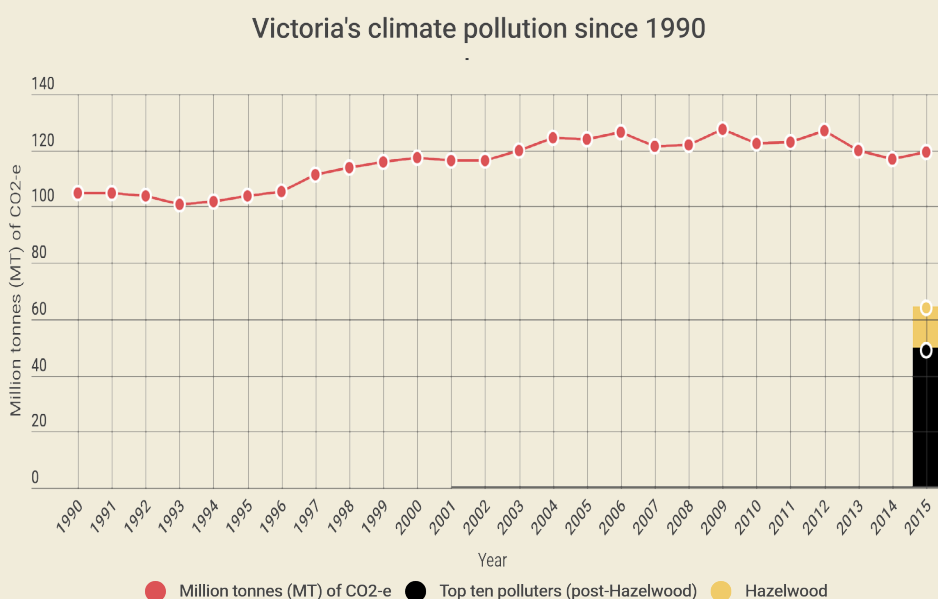


Figure 2. Victoria's emissions since 1990, showing the major contribution of just ten large facilities in the most recent year of data.¹⁰



Above: Protesters in Melbourne calling for stronger action on climate change. The Victorian government has committed to climate leadership, but lacks a regulatory mechanism to cut greenhouse gas emissions

WITH NO SIGN THAT THE TURNBULL GOVERNMENT WILL TAKE THE NECESSARY STEPS TO REDUCE CLIMATE POLLUTION, IT IS CRITICAL THAT LEADING STATES LIKE VICTORIA START TACKLING THIS PROBLEM.

Even after the closure of Hazelwood power station, Victoria's emissions could continue to rise in the absence of coherent policy to curb pollution across the economy.¹¹ The Victorian government's Climate Framework, released in early 2017, provides a broad outline for climate action. Specific policy measures such as the Victorian Renewable Energy Target and Energy Upgrades Program are contributing to emission reduction across the state. However, if we are to meet our climate commitments, more needs to be done to cut emissions from Victoria's biggest polluters.

3.2 UNLIMITED POLLUTION: WHY VICTORIA'S BIGGEST CARBON POLLUTERS MUST FACE STRICTER REGULATION

INEFFECTIVE FEDERAL THRESHOLDS

Coherent climate policy capable of significantly reducing Australia's emissions is urgently needed if we hope to keep global warming well below two degrees. However Australia's large emitters have operated in an uncertain and highly politicised climate and energy policy space for many years. They are subject to some limits set at the federal level, however these limits are set above "business as usual levels", rendering them meaningless when it comes to cutting pollution.

The federal government's Safeguard Mechanism operates to ensure reductions purchased through the Emission Reduction Fund are not offset elsewhere in the economy. It does this by setting a baseline for each facility that emits over 100,000 tonnes of CO₂ per year, in most cases, based on the historical high point of emissions between 2009

¹¹ Michael Slezak and Nick Evershed, (2017), 'Record drop in electricity emissions cancelled out by rises in other sectors.' *The Guardian*, <https://www.theguardian.com/environment/2017/sep/08/record-drop-in-electricity-emissions-cancelled-out-by-rises-in-other-sectors>



and 2014.¹² For this reason companies are very unlikely to go over their baselines, meaning no reductions in climate pollution ensue as a result. Special allowance has been made for the electricity generation sector, despite it being responsible for 34 percent of Australia's emissions.¹³ Here the threshold is set for the entire sector, and in the event this sectoral threshold is exceeded, generators will have until 2022 before it reverts to facility level baselines.

While the safeguard mechanism is theoretically a limit, its settings and a series of loopholes mean that it in no way constrains Australia's biggest climate polluters, nor does it require them to actively reduce their pollution.¹⁴ With no sign that the Turnbull government will act to take the necessary steps to reduce climate pollution, it is critical that leading states like Victoria start tackling this problem.

VICTORIAN CLIMATE COMMITMENTS

In Victoria, the government has set targets and commitments for lowering our climate pollution, however we currently lack a regulatory mechanism for ensuring we achieve these targets.

At the start of 2017, the Victoria government enacted a new *Climate Change Act* (Vic) 2017, which sets Victoria on a path to net zero emissions by the year 2050.¹⁵ The Act provides for a series of interim emissions reduction targets as stepping stones towards the 2050 target. In addition to requiring sectoral and whole-of-government pledges to reduce emissions, the Act confirms that the EPA has the power to regulate greenhouse gas substances, to contribute to the state's long-term and interim emissions reduction targets.¹⁶

The EPA has had the power to regulate climate emissions since long before it was confirmed in the *Climate Change Act*. In fact 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)).¹⁷ These policies do not facilitate or enforce emission reduction from Victoria's biggest polluters and urgently need to be updated so that the EPA can start playing an active role in cutting climate pollution.

As an experienced environmental regulator the EPA is in a strong position to develop and recommend to government the regulatory changes that would enable the authority to best prevent pollution to our climate. Strong regulation of GHG emissions by the Victorian EPA is an essential next step for climate policy in Victoria.

**THERE IS CURRENTLY
NOTHING THAT REQUIRES
VICTORIA'S BIGGEST
CLIMATE POLLUTERS
TO REDUCE THEIR
EMISSIONS.**

¹² Clean Energy Regulator, *Baselines*, <www.cleanenergyregulator.gov.au/NGER/The-safeguard-mechanism/Baselines>

¹³ Department of Energy and environment, *Quarterly Update of Australia's National Greenhouse Gas Inventory: March 2017*, <<http://www.environment.gov.au/climate-change/climate-science-data/greenhouse-gas-measurement/publications/quarterly-update-australias-national-greenhouse-gas-inventory-mar-2017>> p 10

¹⁴ Suzanne Harter, (2015) "*Abbott's safeguard mechanism essentially a licence to pollute*" *Renew Economy*, <<http://reneweconomy.com.au/abbotts-safeguard-mechanism-is-effectively-a-licence-to-pollute-26640/>>

¹⁵ *Climate Change Act* (Vic) 2017, s6

¹⁶ *Climate Change Act* (Vic) 2017, s101

¹⁷ State Environment Protection Policy (Air Quality Management), cl 33,18,19, Protocol for Environmental Management (Greenhouse Gas Emissions and Energy Efficiency in Industry). <http://www.epa.vic.gov.au/our-work/programs/past-programs/industry-greenhouse-program>



04

HOW THE EPA COULD REGULATE CLIMATE POLLUTION

Above: Victoria's seventh largest polluting site, Mobil Altona Refinery is currently permitted to pollute 811,594 tonnes of CO₂ per year under the ERF Safeguard Mechanism.

4.1 HOW THE EPA REGULATES OTHER TYPES OF POLLUTION

For over 45 years the EPA has delivered regulatory policy that limits pollution to land, water and the air. The EPA could use their experience preventing harm from traditional pollutants to inform their response to climate pollution.

The EPA currently regulates Victoria's largest polluters for the following airborne pollutants:

- benzene
- carbon monoxide
- chlorine compounds
- chlorine dioxide
- fluorine compounds
- hydrogen sulfide
- oxides of nitrogen
- oxides of sulfur
- nitrogen dioxide
- particles (PM2.5 and PM10)
- sulfur dioxide
- sulfur trioxide
- total volatile organic compounds¹⁸

¹⁸ Most licences have additional conditions for pollutants to land and water. Licences are available here: <http://www.epa.vic.gov.au/our-work/licences-and-approvals/licences>

¹⁹ Environment Justice Australia, (2017) *Toxic and Terminal*¹⁹ the emissions limits for these substances are far less strict than emissions limits in other countries and need to be improved, and additional harmful toxins such as mercury need to be constrained.



4.2 HOW THE EPA COULD LIMIT CLIMATE POLLUTION

The EPA can use its power to recommend new policies and regulation to limit climate pollution in a number of ways:

- **Annual emission limits:**

Similar to the way other airborne toxins are currently regulated, the EPA could set an annual discharge limit as a licence requirement. Like the Safeguard Mechanism, this limit could initially be based on past emissions, but 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 cl 18(3)(b) of the SEPP (AQM)²⁰.

- **Emissions intensity limits:**

This would involve setting a limit on the emissions intensity of the activities at each facility. This will be most appropriate for electricity generators, where there is an easily measurable output (ie. how much CO₂ is generated per unit of electricity). Victoria's coal generators have the highest emissions intensity in the country.

- **Limited life derogation:**

This concept comes from the UK's implementation of the European Union's *Industrial Emissions Directive*²¹, 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 2023²². 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.

The EPA is currently undertaking a sector specific review of the licences issued to Victoria's power stations.²³ This presents a perfect opportunity to exercise the EPA's climate powers by setting limits on the CO₂ emissions of Victoria's largest climate polluters.

²⁰ State Environment Protection Policy (Air Quality Management), cl 18(3)(b)

²¹ European Commission, Industrial Emissions Directive, <<http://ec.europa.eu/environment/industry/stationary/ied/legislation.htm>>

²² Energy UK, Industry Guidance, <<http://www.energy-uk.org.uk/policy/environmental-regulation/industry-guidance.html>>

²³ Environment Protection Authority, Licensing Improvement, <www.epa.vic.gov.au/our-work/licences-and-approvals/improving-the-system/licensing-improvement>



CONSISTENT WITH THE EPA'S NEW FOCUS ON HARM PREVENTION, WE SUGGEST THE EPA WORK CLOSELY WITH FACILITIES AND THEIR 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 POLLUTERS FAIL TO CURB THEIR EMISSIONS.

HOW POLLUTING FACILITIES COULD COMPLY WITH REQUIREMENTS TO REDUCE THEIR CLIMATE EMISSIONS

There are three main ways facilities could reduce their greenhouse pollution.

- 1. 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. Any on-site power generation could be replaced with renewables.
- 2. Curtail output:** If facilities had an annual limit they must not exceed, the operators could monitor their cumulative annual emissions and manage their output accordingly. Electricity generators already do not operate at full capacity all year round,²⁴ and output could be further curtailed at times of low electricity demand.
- 3. Trading:** Some facilities will find it easier than others to reduce their climate pollution. Trading schemes are a well-known mechanism to enable facilities that cannot cut their pollution to purchase credits from facilities that can.

These practices are not new suggestions for reducing emissions for operating facilities. In fact from 2002 until 2006 the EPA Industry Greenhouse Program required large to medium energy users to review and audit their energy use and greenhouse gas emissions, identify measures to increase energy efficiency, and implement action plans for items with a payback period of three years or less.²⁵

From 2008 to 2013 the EPA's Environment and Resource Efficiency Plans also required large energy users to identify and implement resource efficiency actions.²⁶ Sadly both programs have been discontinued and all that remains are the requirements in the SEPP (AQM), which once again provide no incentives or requirements for existing facilities to adequately reduce their emissions.

Consistent with the EPA's new focus on harm prevention, we suggest the EPA work closely with facilities and their 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 polluters 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.²⁷

²⁴ Electricity Statement of Opportunities 2017, <https://www.aemo.com.au/-/media/Files/Electricity/NEM/Planning_and_Forecasting/NEM_ESOO/2017/2017-Electricity-Statement-of-Opportunities.pdf>

²⁵ Environment Protection Authority, Industry Greenhouse Program, <<http://www.epa.vic.gov.au/our-work/programs/past-programs/industry-greenhouse-program>>

²⁶ Environment Protection Authority, The EREP program, <http://www.epa.vic.gov.au/our-work/programs/past-programs/erep-program>

²⁷ *Independent Inquiry Into The Environment Protection Authority*, Recommendation 12.1



05 CONCLUSION

Victoria's environmental watchdog has protected Victoria's environment from pollution for 45 years and is currently undergoing a \$165 million reform process. Despite these much needed reforms, the Environment Protection Authority is still failing to tackle climate change.

The EPA monitors pollution to our air, land and water, but is allowing climate polluters to dump unlimited amounts of greenhouse gases into our atmosphere. These polluters effectively face no regulation or real limits at the state or federal level.

Placing limits on climate pollution, and an ability and willingness to tighten those limits over time, is going to be critical to Victoria meeting our existing emissions reduction targets (including the short term target to cut emissions by 15 to 20 percent by 2020) and any future targets that are consistent with Victoria's pledge to keep warming well below two degrees.

Victoria's new Climate Change Act confirms that the EPA has the power to regulate climate pollution through amendments to out-of-date regulatory instruments like the SEPP (AQM) and by recommending new more effective policy including hard limits on GHG emissions. And with over 45 years' experience regulating other types of pollution, the EPA is well placed to prevent harm to Victoria's climate.

They have the power and the expertise – all they need is the will. Regulating climate pollution is the unfinished business on the EPA's path to becoming a modern regulator equipped to deal with the big environmental challenges of the 21st century.

