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## **Response to the Summit Paper, “A Climate of Opportunity”**

### **Summary**

This submission is made on behalf of Healesville Environment Watch, PO Box 444, Healesville, Vic 3777.

A number of general comments are made on matters raised in the Summit Paper and it responds to several proposed future directions..

The conclusions of this submission are

- That the threat of climate change is both extreme and urgent,
- That the Victorian Government is yet to take actions that demonstrate proper understanding of the scale and urgency of this threat,
- That the current state of knowledge, reflected in the scientific consensus, is sufficient to indicate a need for immediate and urgent action,
- That all Government policy must be predicated on a non-negotiable commitment to do what is needed to prevent dangerous climate change, and to mitigate any residual effects,
- Urgent action, guided by the best available science, is required to adopt and achieve emissions reduction and renewable energy targets in the short, medium and long-terms.

This submission calls on the Victorian Government to play a pro-active role in global efforts to address climate change by taking immediate, strong and effective action to protect Victoria, Australia and the planet from potential catastrophe.

## General comments

The underlying premise of this Summit Paper, cynically encapsulated in its title, “A Climate of Opportunity” is a distasteful attempt to “spin” the current state of emergency in the world’s climate into an opportunity for local, short-term gains at the expense of the planet as a whole and ultimately the Victorian community as well. This approach is as morally repugnant as that of the northern countries that are currently viewing the loss of Arctic ice as an opportunity to access new reservoirs of oil and gas.

While it cannot be denied that the atmospheric concentrations of CO<sub>2</sub> and other greenhouse gases are already too high and have resulted in an increase in average global temperature, it may not be too late to mount a rapid response to prevent the worst effects of extreme climate change. It is essential that emergency action be taken to stabilize and then reduce atmospheric concentrations of green-house gases so that the planet’s climates can return to within the safe range in which our species has evolved.

The uncomfortable fact is that if we allow climate change to proceed, the climate change impacts will be severe, adaptive possibilities limited, the resilience of the state’s regions and communities will be sorely tested and our natural assets and ecosystems will be irreversibly changed, if not destroyed.

It is all very well to support Victorian individual and communities to get active on climate change, but the Victorian Government is charged with the responsibility of showing genuine commitment to avert catastrophe. To continue “business as usual”, doing the same things that have created the current crisis, with only incremental changes, cannot and will not resolve the emergency we face. We must resist the objections of the vested interests and let go of the old economic constraints that prevent action and show real and urgent commitment to mitigation; energy efficiency, energy from clean, renewable sources (not unproven technologies like CCS), public transport not roads, protection of existing carbon sinks & stores (forests), reduced inappropriate clearing and burning.

The Victorian Government must lead the community in making a commitment to prevent dangerous climate change and that unwavering commitment must be the cornerstone of all policy development.

Victoria cannot solve the global problem of climate change alone, but as a relatively wealthy, educated and secure community it is in a strong position to take a leadership role within Australia, encouraging the nation, as a developed country, to take a stronger leadership role in the world.

Without such an underlying strong commitment to take the action needed to prevent dangerous climate change – everything else in this paper is a side issue!

The inevitable consequences of not acting decisively now to protect the planet that gave us being are unthinkable. **Failure is not an option!**

## Responses to Future directions on climate change

The Government is seeking the views of stakeholders and the wider community in relation to the following questions:

Are these the right directions for Victoria?

Do these directions capture all the climate change opportunities and challenges facing Victoria?

Sadly the answer to both these questions must be, “No”.

The directions proposed fail to tackle the essential, underlying question,

**“Is the Victorian Government committed to resolute and effective action, guided by the best available science, to prevent dangerous climate change?”**

Tragically, as will be shown below, the current indications are that it is not and its most recent actions serve to confirm that interpretation.

### **1. Positioning Victorian industry**

No comment

### **2. Supporting an ETS**

It must be stated at the outset that the ETS (now CPRS) is currently a work in progress and many of its details are unknown. In spite of this it is clear that the success or failure of an ETS in helping to avert catastrophic climate change will depend on the cap that is imposed on emissions and the scheme’s effectiveness in enforcing that cap. Without an effective cap, no amount of permit trading will reduce greenhouse emissions and reverse global warming.

At the present time no cap has been enumerated but it may be assumed that it will be determined in relation to, and will certainly not exceed, the current federal government 2050 target, which it shares with the Victorian Government, of 60% reduction below 2000 levels. This equates to only 53% reduction below 1990 levels.

A recent Australian National University report found the earth's ability to absorb carbon will decline as global warming increases, accelerating the rate of temperature change.

Mr Macintosh says the importance of climate-carbon cycle feedbacks is **often overlooked by policy makers.**

The report's principal author, Andrew Macintosh, from the ANU's Centre for Climate Law and Policy, says greater emission cuts are needed to keep the temperature rise below 3 degrees, describing 60% as, “clearly inconsistent with trying to keep temperatures to 2 degrees and is more consistent with trying to

keep temperatures to 4 degrees” (Climate Change Targets Too Low, ABC Online, 2 July 2008). He added that a temperature increase of this magnitude is, “clearly outside of the bounds of what a large number of people are now saying is the trigger for dangerous climate change.”

In order to return to a safe climate we must immediately halt the continuing rise in Victoria's emissions then reduce them to zero in the shortest possible time. Al Gore has called for this to be achieved in the US power sector within ten years and it is reductions of this order of scale and urgency that must be adopted in Victoria.

Recent climate modelling suggests that, if atmospheric concentrations of greenhouse gases stabilise at 450 parts per million carbon dioxide equivalent, we will have between a 25% and 80% chance of global average warming exceeding two degrees above pre-industrial levels.

Building our own Asteroid,  
Dr Peter Christoff,  
The Age, 1 July 2008

### **3. Pursuing cost effective emissions reductions in sectors of the Victorian economy not covered by the ETS.**

Once again it must be pointed out that the details of the ETS are unclear. However it is proposed that agriculture not be included initially, that forestry be optional and that while transport is to be included, increases in fuel costs are to be compensated. These are very significant omissions considering that, according to the Green Paper (July 2008), Agriculture, Transport and Deforestation were the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> ranked sources of greenhouse emissions in 2006.

In the agricultural sector there is great potential for emissions reduction, methane from ruminant digestion and nitrous oxide from fertilizers being obvious examples. A particular advantage of reducing methane emissions is that it degrades relatively rapidly in the atmosphere so that a reduction in emissions has the potential to lead to a reduction in atmospheric levels within a few years. There also need to be changes in methods, such as low tillage. Fuel crops such as oil-mallee should be further investigated. Biochar should be encouraged as a method of both sequestering atmospheric carbon and enriching soils.

In the transport sector the Victorian government needs to re-examine its commitment to ever-expanding road networks and instead invest seriously in improving the current overstressed and inadequate public transport systems.

In reducing deforestation great gains could be made in Victoria. In its Fourth Assessment Report (2007) the IPCC stated that, "Forest-related mitigation activities can considerably reduce emissions from sources and increase CO<sub>2</sub> removals by sinks at low costs", and further that, "forest-related mitigation options can be designed and implemented to be compatible with adaptation, and can have substantial co-benefits in terms of employment, income generation, biodiversity and watershed conservation, renewable energy supply."

Currently the Victorian government is still allowing the logging of native forests, even in Melbourne's essential water catchments. The real costs of this policy will need to be re-evaluated to include the value of standing forests as carbon sinks and stores.

Recent research indicates that the Mountain Ash (*E. regnans*) forests of the Victorian Central Highlands are some of the most carbon-rich in the world. Dr David Lindenmayer

of the Australian National University recently said in a radio interview, “the extraordinary thing that's coming out is that some of those native forests, the wet forests of Victoria, for example, have over 2,000 tonnes of carbon per hectare in the above-ground biomass. Now, these are astronomical numbers that are far larger than, for example, the IPCC was using as its default value, of 90 tonnes. These are far larger than we ever thought was likely to occur in these kinds of forests. So it means that in a carbon economy those forests have massive values in terms of their carbon storage, and so we really need to rethink how we treat those forests.” (Science Show, ABC Radio National, 7<sup>th</sup> June 2008)

#### **4. Ensuring the continued security, efficiency and affordability of Victoria’s energy supplies by encouraging low-emission and renewable energy options.**

Minister Batchelor has stated, “Latrobe Valley brown coal has high water content. When burnt, it produces more greenhouse gas emissions to our air than any other comparable fuel,” (Issues Paper on a Strategic Policy Framework for Near Zero Emissions from Latrobe Valley Brown Coal). The world’s leading climate scientists are calling for a moratorium on coal-burning power generation. In the US Al Gore has called for a commitment to producing 100 percent of electricity from renewable energy and truly clean carbon-free sources within 10 years.

And yet the Victorian Government has recently committed \$30m to the country’s dirtiest power station at Hazelwood and \$50m to a new coal burning power station in the LaTrobe Valley, which, even with the latest technology, will still be as polluting as current black-coal burning power stations in NSW. It appears our politicians remain determined to support a fossil-fuel burning industry.

Former chief of the CSIRO's atmospheric research division, Dr Graeme Pearman, is surprised that Victoria looks set to get a new coal-fired power plant, "Given the state of play with climate change and the need to reduce emissions, this seems like a very strange decision at this point in time."

Victorian Government puts faith in new coal-fired power station,  
ABC Online, 2 July 2008

The Victorian government is placing its hopes for more substantial future emissions reductions in unproven CCS technology, which may yet prove to be unviable and/or uneconomic. In the recent (May 2008) budget \$122m was dedicated to CCS, compared to only \$72m to renewable technologies that are proven, truly clean and already available.

The inconvenient truth is that, even if CCS is ultimately proven and widely adopted, it will come too late to prevent severe climate change.

## **5. Assisting households to adjust to the rising costs of electricity, fuel and other commodities.**

The Victorian FIT recently proposed by the State government is based on net payment and is capped at a level of only 2 kW, which will provide less power than the average household uses. Germany and other countries have been successful in driving adoption of rooftop solar photovoltaic electricity generation through provision of an uncapped Feed-in Tariff based on gross production payment. Such a scheme has now been proposed in the ACT.

Why would a Victorian government that wishes to assist households to adjust to the rising costs of electricity propose net payment and place such a low limit on the quantity of emissions-free electricity households can generate?

## **6. Increasing our knowledge about climate change impacts and adaptive needs and possibilities.**

“unless drastic reductions in greenhouse gas emissions are accomplished in the next decade, we will see by 2020 global average temperatures greater than any in human history”

**Regional Impact of the Greenhouse Effect on Victoria,**  
research undertaken for the Environment Protection Authority, Victoria:  
A.B.Pittock and K.J. Hennessey, CSIRO Division of Atmospheric Research, December  
1989

It is clear from the above excerpt that the Victorian State Government has had access for many years to sufficient knowledge to support effective action to reduce greenhouse gas emissions and avoid climate catastrophe.

However, far from achieving drastic reductions in the decades following 1989 successive Victorian governments have presided over an accelerating increase in emissions.

Victorian emissions from stationary energy are currently 50% above equivalent 1990 levels and still increasing. 2008 emissions to 1 August were 0.9% higher than at a similar stage in 2007, (see - [www.theclimategroup.org/indicator](http://www.theclimategroup.org/indicator)).

It is apparent that the current elevated level of atmospheric CO<sub>2</sub> (287 ppmv) and the associated warming (>0.7° C) are already too high and are having observable damaging effects on the world's climates.

In Victoria the current “drought”, of unprecedented severity and persistence, has been linked by many to climate shift related to global warming. Seasons are changing, flowering periods have moved and migration of species to higher altitudes or towards the south have been noted.

The physical science of global warming has been established for over 100 years and is well understood. The general principles of its effect on local climate and ecology are established.

*HEWI is a community voice acting to protect and enhance important elements of our local environment*

While it is always a good thing to continue research and increase knowledge and understanding, this must not be allowed to become a substitute for taking action on the basis of what is already well known and understood.

As Professor Garnaut states in his draft report (July, 2008) "We will delude ourselves if we think that scientific uncertainties are cause for delay. Delaying now will eliminate attractive lower-cost options. Delaying now is not postponing a decision. To delay is to deliberately choose to avoid effective steps to reduce the risks of climate change to acceptable levels."

"Without early and strong action, some time before 2020 we will realise we've indelibly surrendered to forces that have moved beyond our control," he said.

"Delaying now will eliminate attractive lower cost options. Delaying now is not postponing a decision, it's making a decision.

"To delay is deliberately to choose to avoid effective steps to reduce the risks of climate change to acceptable levels."

Professor Ross Garnaut, ABC News Online, 4 July 2008

*We have resources. We have technology. The only (thing) lacking is political will. Before it is too late, we must take action.*

**Ban Ki-moon, U.N. Secretary-general**

*The need for action is extremely urgent and our window of opportunity for avoiding severe impacts is rapidly closing. Yet the obstacles to change are not technical or economic, they are political and social.*

**Joint Statement from the 2008 Manning Clark House Conference: "Imagining the Real Life on a Greenhouse Earth", 12 June 2008,** **Australian National University, Canberra.**

As was observed by the UN Secretary General and again at the recent Manning Clark House Conference, the technology needed to address climate change is available, proven and affordable. The reasons for our failure to act have been grounded in the unwillingness of our politicians to take the necessary, and potentially unpopular, action and the failure of our communities to demand that they do so.

It is now apparent that community attitudes have shifted. Grassroots Climate Action Groups have formed around the world and there are several in Victoria. The uptake of accredited green power has exceeded expectations and global warming was a major issue in the 2007 federal election.

## **7. Increasing the climate change resilience of the State's regions and communities.**

When asked a similar question in the Radio National interview quoted earlier, Dr David Lindenmayer stated, "That's one of the key issues that we don't have answers to at the moment. What makes an environment resilient, what makes a human society resilient,

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what makes institutions resilient in rapidly-changing climates? What we do know is that in the past there are some human cultures which have collapsed. We know that there are others that have survived and persisted. One of the most tragic examples comes from interior British Columbia. There, the mid-boreal forests, which are massive expanses of native forest, are basically being killed by the mountain pine beetle. Now that beetle is surviving over winter because there hasn't been deep, cold winters for many years now. And in Alberta over 11 million hectares of lodge-pole pine forest alone have been killed by this beetle, and there are now massive salvage logging operations to remove that dead timber. So within a span of seven to ten years, those boreal forests are being converted from forest through to almost cleared land, and will become grazing country in some places. So this has had massive implications for the timber industry, massive social dislocation, massive losses of biodiversity, and massive emissions of carbon. So there's a system that really is buckling under the changes in climate in a very short period of time. And remember that this is at 385 parts per million CO<sub>2</sub>, relative to what some people are starting to forecast, that we might end up at 700 or 750 parts per million. So these are pretty scary thoughts."

Considering these comments and the sort of examples quoted, it is clear that climate change has already been allowed to progress too far. If the resilience of Victorian regions and communities is to be preserved urgent action must be taken to mitigate climate change and ultimately reverse its effects.

Leading climate researcher Dr Michael Raupach, of the CSIRO, confirmed the 450ppm target might be out of reach: "With any scenario except the most aggressive emissions reduction scenarios, exceeding 2 degrees is extremely likely." The Intergovernmental Panel on Climate Change has identified 2 degrees as the threshold above which the risk of extreme climate change impacts becomes high.

The Age, 2 July 2008

## **8. Assisting our natural assets and ecosystems to deal with the pressures and challenges that climate change will bring.**

Climate change is acknowledged as, "one of the major driving forces behind the unprecedented loss of biodiversity". (Ahmed Djoghlaif, Executive Secretary UN Convention on Biological Diversity, 22 May 2007)

It is known that there are several potential "feedback" loops which will exacerbate the effects of rising green-house gas concentration and temperature and that there are several "tipping points" beyond which the feedback effects become self-reinforcing and irreversible.

Planet-wide, some 20% to 30% of land-based plant and animal species are likely to be at high risk of extinction by 2100 as global mean temperatures exceed a warming of two degrees to three degrees, and up to 50% of species once temperatures rise well beyond three degrees.

But even two degrees will be too high for certain Australian ecosystems. Warming of between 1.5 to two degrees will lead to significant losses of endemic species in Queensland's wet tropics; frequent bleaching episodes and loss of much of the Great Barrier Reef; and a further drop of between 13% and 27% of flow in the Murray Darling even by 2030. The higher we go, the worse it gets.

In other words, the notion of "safe" or "dangerous" climate change really depends on where you are, who you are, or what you are. **"Dangerous" climate change for much of Australia starts well before two degrees.**

Building our own Asteroid, Dr Peter Christoff, The Age, 1 July 2008

If climate change is allowed to exceed any one of these tipping points it will become unstoppable and the effects will be dramatic. There will be massive pressures and challenges that our natural assets and ecosystems will not be able to deal with. Catastrophic losses will become inevitable.

But we will almost certainly not know when we are passing a tipping point until we have passed it – and then it will be too late. What we do know is that we have already wasted years, if not decades, by failing to act to reverse the changes we have caused and have known were in process.

Time is short – and is running out.

## **9. Supporting Victorian individuals and communities to get active on climate change.**

No comment

## **10. Ensuring Victoria continues to play a pro-active role in global efforts to address climate change.**

While the State government has adopted a long-term (2050) emissions reduction goal, it is noted that 60% reduction below 2000 levels equates to a reduction of only 53% below 1990 levels. This is at the bottom end of the range of reductions the IPCC Fourth Assessment Report regarded as necessary if dangerous climate change is to be avoided. And nowhere near the 95% suggested by more recent science.

Greater reductions are needed and interim targets (2020, 2030) must be established.

Similarly, while the VRET target of 10% by 2016 represents a good start, it is no more than a start and will need to be increased and extended.

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Before Victoria can continue to play a pro-active role in global efforts to address climate change it will need to abandon its old backward-looking *modus operandi* and become pro-active in global efforts to address climate change.

Arguing the world was running out of time, UN climate chief Yvo de Boer said the G8 should be setting concrete targets for not just 2050, but 2020. Now.

**Still cool on halting global warming**

The Age, 28<sup>th</sup> June 2008

## Conclusion

HEWI appreciates the opportunity to respond to this report.

It has been known for many years and it is now horribly clear that climate change is the most serious threat to Victoria, Australia and the planet.

It follows that government policy must be predicated on a non-negotiable commitment to do what is needed to prevent dangerous climate change, guided by the best available science.

We call on the Government to show leadership by taking immediate, strong and effective action to mitigate the worst effects of climate change. When this has been done, adequate resources must be allocated to management of residual, unavoidable local phenomena.

We congratulate the Government for adopting long-term emissions reduction and renewable energy targets and encourage it to build rapidly upon these promising beginnings. Fully supporting the renewable-energy industries, as has been done in Germany would create jobs, invigorate the economy and, in the long term, provide cheaper power.

We condemn the Government for its continuing misguided commitment to support the fossil-fuel based industries and to brown coal in particular.

Stringent targets for short and medium-term emissions reductions, based on the available science, need to be set and clearly stated with reference to 1990 base levels.

Current indications are that the Government does not yet appreciate or accept the scale and urgency of the ecological crisis we face. Drastic and determined action is required to stabilize and reduce Victoria's greenhouse emissions, if we are to have any chance of meeting the government's 2050 target, which, in itself, is inadequate.

If catastrophic outcomes are to be avoided an emergency-mode response must be adopted.

Public funds and government support must be transferred to proven low and zero emissions technologies, and to drawing down greenhouse gases that have already accumulated in the atmosphere.

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