



Benalla Sustainable Future Group

Newsletter 7

August 2014

Benalla Sustainable
Future Group Inc.

PO Box 642

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Benalla Sustainable Future Group Inc. Annual General Meeting

The next meeting of the Benalla Sustainable Future Group will be our Annual General Meeting and will be held at

***7:30 pm on Thursday 28th August
Uniting Church, Carrier Street, Benalla***

Guest Speaker:

Carol Hall - 'What Price an Ice Free Arctic?'

Carol, a geographer and nature photographer, with a special interest in glaciated areas of the world, will talk about her trip to the Arctic in 2010 when she visited Greenland and Spitsbergen, an island off the coast of Norway. Carol's presentation focuses on the ecology of the two islands, portraying polar bears, seals, birds and plants. She will also highlight the impact of global warming on the Arctic, particularly the decrease of summer sea ice, the implication for wildlife habitat, and the potential for increased resource exploitation.

There will be the normal business of an Annual General Meeting conducted before our Guest Speaker:

**Minutes of 2013 AGM
Presentation of Annual Report
Presentation of 2014 Financial Statement
Elections**

Elections will be held for four office bearer positions - President, Vice President, Secretary and Treasurer; and for four committee members.

This year three of the people on the committee will be retiring so we will be looking for people who are willing to contribute to the ongoing operation of BSFG.

The role of a committee member is not onerous and the committee generally meets six or seven times a year in the months between general meetings.

Obviously you need to be a financial member to be nominated for any of these positions and although the membership year does not start until September 1st, new applications will be accepted at the AGM. So if you are interested in being an office bearer or a committee member and are not currently a financial member that can be rectified at the AGM.

***Peter Maddock
Secretary***



Polar Bears © Carol Hall 2010



Tufted Saxifrage © Carol Hall 2010

"Earth provides enough to satisfy every man's need, but not every man's greed." – Mahatma Gandhi

President's Column

Carbon Tax Repeal - Battling the Future

'Emission Accomplished' said the headline in *The Age* over a photo of Prime Minister Abbott announcing the repeal of the carbon tax. While Mr Abbott was no doubt delighted with achieving his number one election promise many people in Australia and around the world saw this as a backward step.

The repeal made headlines across the globe with news organisations highlighting the fact that Australia was the world's first developed nation to repeal carbon laws that put a price on green-house gas emissions. The BBC report also made mention of Australia's status as the 'world's worst polluter per head of population'. The *Wall Street Journal* said Australia's decision could have international consequences before global climate talks in Paris in 2015.

Tom Arup, writing in *The Age* on 18/7/14, (*'Abbott battles future with climate change denial policies'*), says we should not underestimate the significance of this act where a major reform, established in law and largely working, has been rescinded. While this is not unheard of in Australia's political history it is rare.

Arup lists what has been lost with the repeal of the carbon tax:

- Australia no longer has a hard cap on the amount of planet warming gasses that can be released by Australia's largest companies.
- There is no longer an efficient mechanism to meet our domestic emissions reduction goals. Nor one that can be easily scaled up to meet deeper cuts required to limit global warming to relatively safe levels.
- There is no longer an architecture that can endure for decades that can tackle a problem that requires a solution to be achieved over that time frame.
- Australia no longer has a long term emissions reduction target enshrined in law - it was an 80% cut by 2050 until the repeal.

Arup argues that the Abbott government's agenda on climate change is bigger than just 'axing the tax', and more destructive as it attacks clean energy. He reminds us that the government has appointed a self-described climate sceptic to review the renewable energy target. The profit making Clean Energy Finance Corporation and the Australian Renewable Energy Agency are up for abolition. A program forcing big energy users to become more efficient with their power use was closed. International aid commitments to help the poorest nations with climate change are sneered at while independent agencies advising on climate matters have been shut or are on the list for abolition.

What has the government proposed to replace all of the above? Direct Action - a still not fully formed incentive scheme with limited scope which many believe will not achieve the limited 5% by 2020 target for reducing greenhouse gas emissions.

Arup suggests that hard regulation to cut emissions from transport, power plants and industry would be more effective. He states, 'The Coalition's approach to climate change is political management. It seeks to avoid embarrassment on the domestic and world stage by doing the bare minimum and fiddling at the margins.'

Does the coalition have a long term plan beyond 2020? The science demands that emission cuts do not stop in six years. To make the deeper cuts required we will need major reform to the way our energy is produced, how we move ourselves around and how we make things. There appears to be nothing in the Coalition's policy that prepares us for this.

Arup argues that carbon pricing could endure. While it was not a panacea on its own it was an effective central pillar to a long term emissions reduction strategy. This is the view of the OECD, the World Bank, the United Nations and institutions like them.

Arup concludes his article as follows. 'On carbon pricing, Australia had got itself ahead of the curve. Doing that has always been to our advantage. We restructured ahead of others, lessened the associated pain and got on with embracing modernity. Instead we have become the first country to roll back a carbon price. *This repeal is fighting against the future. This is a battle that is rarely won.*' (My emphasis)

As the repeal of the carbon tax has been such a major issue, further articles about the carbon tax follow as we try to present a factual view of the issue.

John Lloyd



Tandberg, *The Age*, 18/7/2014

Tony Abbott's 'Reckless Plan': says UK politician

One of the UK's leading conservative politicians has attacked Tony Abbott's repeal of the carbon tax as 'recklessly endangering' the future of the world.

Lord Deben, a former head of the Conservative Party who served under Margaret Thatcher and John Major, is now the head of the UK Committee on Climate Change.

In an interview on ABC Lateline on July 8th he said, "The Abbott government appears to be more concerned with advancing its own short term political interests than dealing with global warming. Australia is changing Britain's climate just as we are changing yours. It is not just a national matter. We are all in this together and Mr Abbott is recklessly endangering our future, as he is Australia's."

Lord Deben explained, "In Britain we have an independent body which is apart from party politics which sets the targets, sets the budget, and independently assesses how well the government has done. Mr Abbott has got rid of his independent group, he won't have independent assessment, nobody outside his party thinks that his policy is going to deliver and he will not listen to the rest of the world. That seems to me to be very sad because Australia is a great nation that ought to be leading the world instead of going backwards."

Lord Deben said his criticism would not be as harsh if the Government planned to replace the carbon tax with a policy that would achieve similar results.

The Government says its \$2.5 billion Direct Action plan will reduce emissions and allow Australia to reach its target of a 5 percent reduction in emissions by 2020.

But Lord Deben - whose government has a binding target to cut emissions by 80 percent by 2050 - says that is a 'miserable' target. "A 5 percent target by 2020 is out of kilter ... with the rest of the world," he said. "If people outside and inside Australia believed that Mr Abbott took climate change seriously, was going to international conferences to try to play Australia's part in leading the world, that he actually though this was important and not as is rumoured thinks it is all rubbish, then we would be much more sympathetic with the views that he's putting forward."

"But we all know he and his government do not take this seriously, where the rest of the world, 80 percent plus of emitters, are taking it so seriously that we find it very upsetting that Australia should be slapping us in the face and saying we don't care about the climate, you can get on with it, we are not doing our part."

Source: ABC News report on ABC News website, 9/7/2014.

Carbon price helped cut emissions

A study by the Australian National University has found that Australia cut carbon dioxide emissions from its electricity sector by as much as 17 million tonnes because of the carbon price and would have curbed more had the industry expected the price to be permanent.

Associate Professor Frank Jotzo, director of the Centre for Climate Economics and Policy, and co-author of the report said, "We see the carbon price doing what it was meant to do and what it was expected to do, namely dampen demand and shift the supply from dirtier to cleaner sources of electricity."

The ANU report found the drop in power demand attributed to the carbon price was about 1.2 to 2.3 percent of the national electricity market servicing about 80 percent of Australia's population. Emissions intensive coal fired power generators cut output but doubts that the carbon tax would last, partly due to Tony Abbott's 'blood oath' to repeal it, meant that high emission generators were mothballed rather than permanently closed.

"We'd expect the impact of the carbon price would have been larger, perhaps far larger, if there had been an expectation that the carbon price would have continued," Professor Jotzo said.

Environment Minister Greg Hunt has said repeatedly that the carbon tax was ineffective, stating Australia's total emissions fell 0.1 in the first year. However more recent figures show the emissions reduction accelerated during 2013. In the power sector, the industry most directly covered by the carbon price, emissions fell 5 percent.

While Mr Hunt's office points out that there are other factors resulting in lower emissions in the electricity sector - including lower demand, the impact of the Renewable Energy Target, and increased hydro output, Professor Jotzo said the ANU paper takes these into account in estimating the carbon price impact.

"We would expect politically motivated talk ... may well have had a large impact on people's power usage patterns," Professor Jotzo said. "The only thing that went wrong in Australia was the politics of climate change policy. There was nothing inherently wrong with the scheme".

Source: Peter Hannan, The Age, 18/7/2014, "Price helped cut emissions: ANU".



Australia's Coal Industry: Does it have a future?

At the recent midyear UN climate negotiations in Bonn, an unprecedented 60 countries (including Germany) called for a total phase-out of fossil fuels by 2050, as part of a global agreement on climate change to be concluded in Paris in 2015. Meanwhile, on tour in North America, Prime Minister Tony Abbott declared that: "For many decades at least, coal will continue to fuel human progress as an affordable, dependable energy source for wealthy and developing countries alike."

But Mr. Abbott's 'coal forever' scenario is only likely if we fail to develop a global agreement to tackle climate change, which could come as soon as the end of next year in Paris. Such global action would dramatically reduce the use of fossil fuels over the coming decades, particularly coal for electricity production.

So, what is likely to happen to coal use and Australian coal exports in the coming decades?

What happens to coal will depend on what the world does to address climate change. Any scenario that seriously addresses climate change will lead to reduced use of coal, particularly thermal/steam coal used to generate electricity. Most of the world's coal production goes to electricity generation but renewable energy substitutes are already available and increasing becoming competitive with coal, even before significant policy measures to address climate change are introduced. In the coming decades, efforts to address climate change will likely dramatically reduce the use of coal for electricity. Coal is also used for steel-making however substitutes for this coking coal are not so readily available.

In its 2013 report, the International Energy Agency modelled what impact climate action would have on the energy industry. In one scenario, using a relatively weak global climate policy (which had only a moderate chance of limiting warming to 2°C), coal's share of global energy output dropped to about half of current levels by 2035.

According to climate action group 350.org, 80% of already proven fossil fuel reserves will have to remain unused in order to limit warming to less than 2°C above pre-industrial levels. The total phase-out of fossil fuel use by 2050 is also clearly a possible outcome of global climate agreement in Paris 2015.

The greatest reductions will likely come from coal and in order to keep warming to less than 2°C, more than 80% of the vast proven global coal reserves, including those in Australia, will need to remain in the ground.

The only good news for Australia is that 40% of our current coal exports are coking coal for steel-making. The lack of immediate substitutes for coking coal will likely mean that demand for coking coal will not fall away so rapidly as demand for coal for electricity generation, which is already weakening. (Global coal prices have halved in the past five years.)

Exports make up a large proportion of Australia's coal production however the bad news is that two of our three major markets, China and India, meet most of their demand from domestic coal production. If the world agrees to reduce fossil fuel use, China and India are likely to be able to meet most or all of their needs for steam coal domestically in coming decades and not rely on imports from Australia.

According to Bloomberg New Energy Finance's 'Markets 2030' report released early in July, solar PV and wind energy will beat both coal and gas on costs - without subsidies - in the major Asia energy markets of China and India by 2020. The report predicts a fundamental shift in Asia's energy mix as the major economies turn increasingly to renewables and away from fossil fuels. (Giles Parkinson, *The Conversation*, 10/7/2014)

The implication for Australia - and the developers of large coal mines and the potential investors in huge infrastructure such as the giant Carmichael coal project in the Galilee Basin in Queensland recently approved by the Environment Minister - is that the share of coal will gradually shrink as the significance of local air pollution and climate change, and the competitiveness of renewable technologies, crowd out further investment.

It seems that the healthiest scenario for the planet is a very unhealthy scenario for Australia's coal - particularly coal for electricity generation.

Ian McGregor, University of Technology Sydney
'Australia's coal industry needs to prepare for global climate action', *The Conversation*, 3/7/2014



Tandberg, The Age, 16/6/2014

Swanpool Environmental Film Festival 2014

The second SEFF was held on Saturday 14th June from 1 pm through to 10 pm. It followed the format of the previous year - three sessions with a speaker and a feature film for each. The event was organised by Swanpool Landcare, the Gecko CLaN and BSFG.

Session One was all about people and leadership with Prof Kate Auty giving an impressive talk and even using excerpts from the film 'To Kill a Mockingbird' to make the point that individuals can make a difference. The film 'Connected' showed many examples of communities around the world coming together to create sustainable changes.



The transition to renewable energy was the theme for Session Two with Dr Mark Diesendorf from the University of NSW speaking about how this can be done, despite the many myths propagated by those who are loathe to make the change. The modelling work of his department using actual solar, wind, hydro and consumption data, shows that the transition could be made now using known and tested technologies.



The film 'The Future of Energy' added to the evidence and showed just how far behind we are in Australia, a country with abundant renewable resources. Dr Mark Diesendorf's book 'Sustainable Energy Solutions for Climate Change' is well worth a read.

Dinner was then provided for around 180 people by the Swanpool Catering Group. What a treat!

Prof Rod Keenan addressed the evening session on the subject of forestry; the state of the worlds forests, both positive and negative. Australia actually rates quite highly for the extent of native forests. Sustainable harvesting and accreditation was a feature of Rod's talk. The film 'Amazonia Eterna' gave the audience an insight into efforts to retain this natural resource.

All three speakers were thanked for coming to Swanpool and giving so freely of their time to educate and encourage actions to move towards a more sustainable future. Special thanks were extended to our projectionist Peter Maddock who spent many hours on the technical preparation. Melanie Addinsall received a goodbye gift for her time with the Gecko CLaN and her support to the Swanpool Group, presented by BSFG's Wendy Hutchison. Our thanks also to Commodore Australia, based in Euroa, who donated a solar camping system as a door prize.

SEFF 2015 suggestions are already coming in!

Ian Herbert



Dr Mark Diesendorf, Prof Kate Auty & Prof Rod Keenan



Tandberg, The Age, 24/6/2014

Global Growth of Carbon Pricing

In the lead up to the repeal of the carbon tax Tony Abbott argued that other nations were also winding back their emissions trading schemes. On an official trip to Canada the Prime Minister told reporters that trading schemes were 'being discarded'.

"There is no sign - no sign - that trading schemes are increasingly being adopted. If anything trading schemes are being discarded not adopted," he said on June 8th.

However it seems that this statement from Mr Abbott is not backed up by the evidence around the globe.

Kobad Bhavnagri, Australian head at analysts Bloomberg New Energy Finance, said it was wrong to claim trading schemes were being discarded. He said China started six regional emissions trading schemes in the past year - building towards a national scheme expected to be in place this decade. While in the USA he said the recently announced emissions limits on coal fired power plants would likely lead to more states adopting emissions trading to deliver required cuts. "Apart from Australia I don't think any other country has plans to unwind an emissions trading scheme. That assertion they are being discarded is incorrect. In the world's two biggest economies - and the world's two biggest emitters - we are seeing quite a deliberate move towards carbon pricing and emissions trading, not away," he said.

A World Bank report released last month found the share of emissions covered by domestic carbon prices significantly increased over the past year on the back of trading schemes launched in China, California and Québec. The World Bank found 39 countries, most in the European Union, and 23 states and provinces within countries have adopted either emissions trading or a carbon tax. They cover about 12 percent of global greenhouse gas emissions.

Professor Ross Garnaut who headed an independent review of climate policy commissioned by Kevin Rudd and state and territory governments in 2007, which was updated in 2011, said he doesn't know of anywhere in the world where carbon pricing is being wound back. "I'm not aware of any carbon pricing, either tax or ETS, that's closing down and the World Bank Report is authoritative," Professor Garnaut said.

ABC Fact Check also investigated carbon pricing around the world to 'check out' the Prime Minister's assertion. The Fact Check verdict says while there is uncertainty in the international carbon pricing market and global agreements are weak and non-binding, individual nations and sub-national regions are increasingly creating carbon trading schemes of their own. Mr Abbott's claim that 'trading schemes are being discarded not adopted' doesn't check out.

Sources: Tom Arup, The Age, 10/6/2014, 'Leader misses worldwide trend'.

ABC News – Fact Check: Tony Abbott's claim carbon schemes being discarded doesn't check out. 9/7/2014

Progress Towards Solar Thermal Power at Port Augusta

At the beginning of July the Australian Renewable Energy Agency (ARENA) announced progress on Alinta Energy's Port Augusta solar thermal feasibility study. ARENA CEO Ivor Frischknecht said Alinta Energy has narrowed down the options for a renewable energy solution for the South Australian community.

Alinta Energy is the owner of two ageing coal fired power stations at Port Augusta, one of which has been shut down. These power stations need to be replaced and the Port Augusta community conducted a major campaign to persuade the South Australian Government and Alinta Energy to build a solar thermal power station. This included marching from Port Augusta to Parliament House in Adelaide.

The campaign was successful and Alinta Energy commissioned a feasibility study to examine the available solar thermal technologies and potential plant locations. The study found that a 50 MW solar thermal plant near Port Augusta's existing power stations was technically feasible.

Mr Frischknecht said, "Alinta is now focussing its pre-feasibility work into a stand-alone thermal plant using 'power tower' technology that would see a field of mirrors concentrate light into a central receiver. A stand-alone option was favoured over hybridising existing coal-fired plants due to lower technology risks and the capability to operate on a longer life cycle. The next stage of the investigation will give a clearer indication of the costs, logistics and overall feasibility of the plant."

"The high temperatures generated by power tower technology make it most compatible with molten-salt storage. A 50 MW plant is capable of harbouring many hours of storage, presenting the key advantage of providing a steady flow of power through the night and during cloudy periods."

Repower Port Augusta, the alliance of community groups, the Port Augusta City Council, local business, unions, health organisations and environment groups campaigning for solar thermal power, welcomed the news as a huge win for the Port Augusta community and congratulated Alinta on making the right choice. They note that this win is just the first part of any such project, and that funding and government support will determine the outcome.

"The construction of a solar thermal power station is an investment that would be of immense benefit to our region and the state," Lisa Lumsden from Repower Port Augusta said. "In Port Augusta, we have the space, the sun, the workforce to make this happen, and now we have a company studying exactly how they could do it. The Federal Government needs to get behind this opportunity rather than attacking existing funding for renewable energy."

Sources: ARENA media release 3/7/2014 and ReNew website, 'A big step forward for solar thermal in Port Augusta,' 15/7/2014

Climate Change - It's Just Basic Physics

Having written a Letter to the Benalla Ensign (16th July 2014) I thought that it might be time to put down some facts about Climate Change.

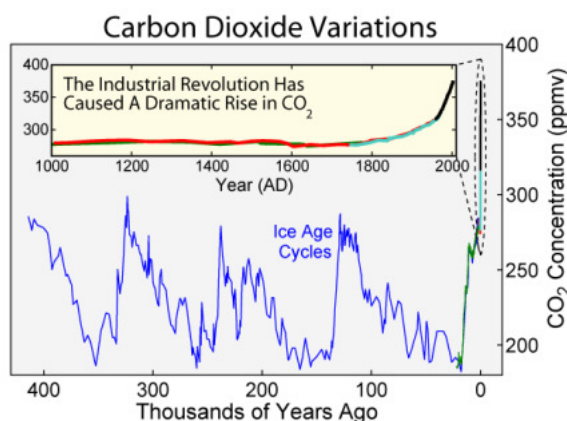
The earth is a warm body because it receives heat from the sun. Like all warm bodies, it also emits heat back into space. Over millennia a balance has been established between the two and, as a result, here on earth we enjoy a relatively comfortable average temperature of about +20°C.

The atmosphere is mainly made up of nitrogen and oxygen in the forms N₂ and O₂. These simple two-atom molecules are transparent to the heat emitted from the earth and don't enter the Climate Change equation. Carbon dioxide though, CO₂, a three-atom molecule, is not transparent and any one molecule can absorb and re-emit some of the radiated heat. Some of that re-emitted energy heads back down to earth.

Water vapour, H₂O, is also a molecule made up of three atoms and it does the same thing. We all know that the earth remains warmer of a night time when there is lots of water vapour in the air, compared to a night with clear skies.

Without the carbon dioxide and water vapour in the atmosphere it is calculated, with simple energy equations, that the earth would average a rather chilly temperature of minus 19°C.

Before we started burning lots of fossil fuels the carbon dioxide in the atmosphere was just 280 parts per million. Now don't think that such a small amount cannot have a big effect! Just try dropping one drop of dye into a jug of water and you will see what I mean; CO₂ acts the same way in the atmosphere.



We've now raised the amount of CO₂ from 280 to 400 parts per million, way above historical levels. The question is, "Just how much will the extra CO₂ effect average temperatures?" There are lots of factors to take into account but all the various models predict significant temperature increases.

There is actually a 'double whammy' effect. As CO₂ rises, causing more of a blanketing effect, the extra warmth allows more water vapour in the atmosphere.

When the heat gets re-emitted back to earth, much of it ends up in the oceans. These are very big heat sinks and take time to warm up. As they do so the water expands and sea levels rise. About half of the

rise rate of 3 mm per year is due to such warming. The other half is due to higher atmospheric temperatures melting fresh water surface ice, most notably from the Greenland ice cap. The rate of rise is now on the increase.

Because the oceans are such huge heat sinks, we tend to be very complacent – a case of 'She'll be Right Mate'. We only act when we have a very obvious disaster. In fact here in Australia we pride ourselves on our disaster management services – CFA, SES etc. We're not so good when it comes to prevention as multiple Royal Commissions on bushfires will testify.

Action on Climate Change can only take one form – cutting emissions of CO₂. The increase must be halted and then turned back. All the time the figure remains above that historical mean of 280 parts per million the heat accumulation will continue.

The atmosphere is shared by all nations therefore all must contribute to the reduction. Here in Australia we can make a start by changing our large power stations over to renewable sources. Many households have already done so and the technology exists to rapidly transform our large scale generators as well.

This is a decision that older people should support for the sake of younger generations who are going to have to live with the consequences. It is not a question of 'If?' but 'How Much?' and 'When?' It has now become a question of politics and survival.

Ian Herbert

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