



Benalla Sustainable Future Group

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December 2015**

Benalla Sustainable
Future Group Inc.
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BSFG website launched

The recently developed BSFG website was officially launched at the October meeting of BSFG by Peter Maddock and Bev Lee. Peter and Bev, with support from Cath Marriott, have done an amazing job in designing and developing the website. The website subcommittee used the free online Weebly platform to develop the current site replacing the original objective to have a website designed commercially.

In launching the site Peter Maddock commended the work done by Bev Lee in particular, in applying her many skills to the design and development of the website. The outcome has resulted in a website which can be readily maintained and updated to reflect the group's activities.

Check it out at www.bsfq.org.au

Next Meeting

The next meeting of Benalla Sustainable Future Group will be held at

7:30pm on Thursday 10th December

in the meeting room at the Uniting Church, Carrier Street, Benalla. After the usual formalities and business we will watch a screening of

'Little Talks to BIG'

produced by Strathbogrie Voices and to be screened in Paris at the COP21 Climate Conference. This video shows exactly how people in small communities can contribute to positive action.



President's Column

New Prime Minister - New Climate Policies or just a Different Suit?

Now that Malcolm Turnbull has replaced Tony Abbott as Prime Minister will we see significant changes in the government's action on climate change? After all Malcolm Turnbull has previously put forward some strong positions on climate action. Unfortunately, at the time of writing, it seems that little, if anything has changed.

Bernie Fraser, ex-Treasury head, former Reserve Bank governor and recently resigned chairman of the Climate Change Authority says that Prime Minister Malcolm Turnbull's "courage has deserted him" on climate action and predicts that the federal Coalition's policies will fail to meet even modest targets to reduce greenhouse gas emissions. (Fraser: PM 'has lost his courage on climate change', Nicole Hasham, *The Age*, 23/9/15)

Mr Fraser said, "He is just sticking with the status quo ... It's a pity his courage has deserted him. The party's hardliners are causing (Mr Turnbull) to back away from what was a pretty strong position earlier on."

It is widely known that Mr Turnbull assured Liberal conservatives before the leadership ballot that he would toe the line on climate change action. He has frequently defended the government's Direct Action policy, and its greenhouse gas reduction targets of 26 to 28 percent by 2030, based on 2005 levels. Mr Turnbull has previously described the Coalition's emissions reduction fund, which pays companies to cut their pollution, as a "very expensive charge on the budget". However he has told Parliament 'the government's policy on climate is right'.

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

The Turnbull government has recently re-approved the Carmichael coal mine in Queensland which if it eventually progresses will have an enormous impact on the Great Barrier Reef and global greenhouse gas emissions. More recently, in response to an open letter from 61 eminent Australian's seeking a moratorium on any new coal mines in Australia and a limit on coal exports, Mr Turnbull decried the proposal on the grounds that "if Australia stopped exporting coal, the countries to which we export would simply buy it from someone else." As someone reminded me - that sounds very like the drug dealers excuse!

So the question remains - New climate policies or just a different suit? Has Malcolm Turnbull sold out on his principles to achieve the office of Prime Minister? The signs to date are not encouraging.

Leadership can set the Tone and Topic of Public Debate

The results of a recent survey by the CSIRO clearly spell out how important it is for Prime Minister Turnbull to show real leadership in relation to the debate about climate change and to step out from the constraints imposed by the right wing of his party.

A five-year study by the CSIRO about Australians' attitudes about climate change indicates about one-fifth of the population still does not believe climate change is happening. Of the 80 percent who do accept that climate change is happening less than half believe climate change is due to the influence of humans on the environment.

The CSIRO survey revealed some stark correlations between climate-change opinions and voting patterns. Of the people who voted for the Liberal Party in the 2013 elections, 52 percent believed that climate change was natural and only 28 percent believed that humans were to blame. These figures were reversed when it came to Labor voters where only 31 percent believed climate change is a natural occurrence and 59 percent believed it was due to human activity.

As reported in *The Age* Editorial on 6/11/2015, another recent study by CSIRO researchers suggests the tone of political debate after an election - the attitude towards climate change adopted by a governing party - influences climate scepticism.

The Editorial states, "Never discount the importance of leadership in setting the tone and topic of public debate. Tony Abbott, his ministers and his government were culpable in a failure of leadership, in not directing the community towards an appropriate consensus about climate change based on scientific evidence. Instead, they abused the trust Australian voters vested in them, by playing politics against science."

"Mr Abbott licensed unscientific thought while prime minister. His views on climate change were fundamentally along the lines of a denier, while his vision was ideologically narrow and categorically outdated by science. He gave credence to voodoo nonsense when he should have debunked it, reinforced

the scientists and continued to fund the highest quality of research and education."

Later this month, Prime Minister Malcolm Turnbull will attend the Paris climate change talks where, hopefully, world leaders will agree on a set of global targets for reducing carbon emissions by 2030. *The Age* editorial concludes as follows: "The targets set by Mr Abbott when he was prime minister, and which Mr Turnbull will take to Paris, are pathetically weak. We urge Mr Turnbull to prove his administration will do more than his predecessor about reducing emissions, penalising polluters, encouraging clean-energy producers and fostering behavioural change in the wider community. **Australia and the world would rightly despair if the Abbott brand of thinking were to hold sway.**" (My emphasis)

So it is over to you Prime Minister Turnbull. Will you change the tone of the debate and take decisive action on climate change or are you 'just a different suit'?

"Turnbull rebuked on coal"

The day after I thought I had completed my column the above headline appeared (*The Age*, 11/11/2015). The Turnbull government has been accused of supporting a "negative carbon price" by standing in the way of the US and Japan as they try to dramatically reduce the ability of rich countries to fund coal plants in the developing world.

The move has once again prompted claims that the government is risking Australia's international reputation on climate change. Australia is opposing a US-Japan plan that would in effect limit public financing of coal-generated power by OECD countries to only the "cleanest" coal plants available, mostly those classed as "ultra-supercritical" generators.

The proposal is to be debated at an OECD meeting next week in Paris, amid hopes it will provide a boost to the global climate summit a fortnight later. It is expected it could reduce the funding of coal by OECD public agencies by billions by making more polluting power stations ineligible.

Japan - the world's largest public financier of coal plants - last month reversed years of opposition and will now back the US proposal. The US-Japan plan also includes a clause that a coal plant could only win public funding if cleaner alternatives, such as renewables, were not viable. However the deal will not be accepted if Australia and South Korea remain opposed. Jennifer Morgan, at the World Resources Institute, Washington, said Canberra's submission meant it would like the OECD to continue to support funding of coal.

"Its proposal would effectively continue the status quo," she said. "Internationally, people are looking to see whether the Turnbull government will differentiate itself from the Abbott government and join the rest of the OECD in charting a path for clean energy."

It appears that it will take some time before we really know if our new PM is more than 'just a different suit' in relation to climate change!

Postscript to President's Column

The latest news from the OECD is that Australia has backed down from its position of opposing a deal to limit public financing of coal-fired power and has agreed to limit subsidies for the export of inefficient coal-fired power plant technologies.

Australia unfortunately continued its role as a climate laggard by rejecting the clause requiring project developers to look at cleaner alternatives and negotiating for the inclusion of a clause allowing for dirtier plants to be funded if they were small and in developing countries.

John Lloyd

Victorian Government Support for Community Energy

Victorian Premier Daniel Andrews has stated that he aims to have Victoria become a leader in renewable energy. As part of this process the government has produced '*Victoria's Renewable Energy Roadmap*' which sets out how renewable energy can be developed in Victoria, including active government support for the development of community owned renewable energy projects.

On 7 November, the Minister for Energy and Resources, Lily D'Ambrosio, launched the Victorian Government's Community Renewable Energy Guide, "***Guide to Community-Owned Renewable Energy for Victorians***". The Guide has been prepared as a resource for community groups interested in developing community owned renewable energy projects.

Government support for these projects will include a number of funding rounds through the "*New Energy Jobs Fund*" and assistance with the development of the project from the Department of Economic Development, Jobs, Transport & Resources.

Time for a Benalla Community Energy Project?

With the amount of support available from the Victorian government surely it is time to investigate the possibility of a community-owned renewable energy project for Benalla. And surely it is fitting that Benalla Sustainable Future Group takes the initiative in starting this process.

I think we need a small group of people to do some research, investigate possible options and decide how to get the wider community involved. This would need to be a Benalla community project rather than a BSFG project.

Please let me know if you are willing to be part of this working group to help investigate the possibility of a community-owned renewable energy project for Benalla. (See contact details at end of newsletter)

John Lloyd



Solar Tracking

We purchased a 1.4 kW PV solar system many years ago, when prices for PV panels were very high. It was worth our while to mount the eight 175W panels on a tracker to get the maximum power out of the system. You can see the combination in the photo above.

Though the photo looks magical, astute readers will realise that the panels are not facing the sun! The drive mechanism was 'graunched' and the one-point mount seriously cracked. To stop it blowing away in the next gale I braced the frame with tie-down straps.

Recently, in a copy of ReNew Magazine, I read of a new tracker which worked on a different principle. The panels rotated from east to north to west by moving around a half circle track. In the morning the panels prop up to near vertical, at midday they lie back to match the sun's elevation and in late afternoon they prop up again to face the setting sun.

I saw it on display at Elmore Field Days and have since purchased and installed a system:



You can read about it at www.magnisun.com.au What it means for us is about 40% extra power feeding into the grid. For us it is an excellent investment as we're still on the premium feed-in tariff - and it is well-engineered to withstand strong winds.

My next project is to maximise the amount we feed in to the grid by improving our hot water heating year round. Our solar hot water system works OK during the summer months but it could be better. So I am now investigating directly heating the hot water with PV panels and doing so 'off the grid', an idea that was mentioned at the last Sustainable Housing Forum. Hopefully by the time the next newsletter goes to print we will have made some progress towards this goal.

Ian Herbert

Sustainable Gardens & Farms

Recently a new sustainable food growers' group has been formed as an action group of Benalla Sustainable Future Group. The 'Sustainable Gardens & Farms Group' will be focussing on growing sustainable edible gardens and farms, and following permaculture principles.

The information box below provides more details about the proposed activities of the Sustainable Gardens & Farms Group and contact details for those who would like to join the group.

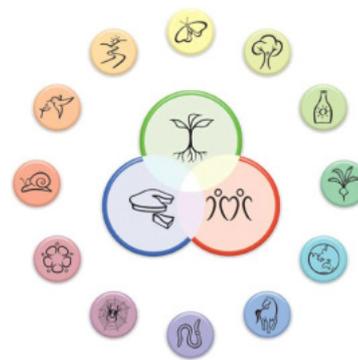


What is Permaculture?

"Permaculture is a creative design process based on whole-systems thinking that uses ethics and design principles. It guides us to mimic the patterns and relationships we can find in nature and can be applied to all aspects of human habitation, from agriculture to ecological building, from appropriate technology to education and even economics.

By adopting the ethics and applying these principles in our daily life we can make the transition from being dependent consumers to becoming responsible producers. This journey builds skills and resilience at home and in our local communities that will help us prepare for an uncertain future with less available energy."

From [Permaculture Principles](#).



Sustainable Gardens & Farms Action Group

'Growing Sustainable & Edible gardens, farms & permaculture'

Aims:

Meet regularly to discuss, learn & grow our environments with Permaculture principles & a sustainable & organic focus.

All members treated as equals with all contributing to learning & growing the group and each other.

Activities:

Meetings - regular meetings, discussions, socialising & movie nights, event planning at various venues such as cafés & homes.

Perma blitzes - backyard blitzes with a Permaculture design

Perma bees - regular working bees for improvement & maintenance

Workshops - on topics such as tool sharpening, composting, pruning, bee keeping, seed saving, regenerative agriculture, pest control, swales, insect hotels, chooks etc.

Food swap – bring excess produce to meetings to swap/share with others

Excursions – visit other gardens, farms and expos/events

Bulk Material buying & sourcing – Order garden materials in bulk to save money & resources. Such as pea straw, compost etc. Where to source second hand materials such as pallets, Styrofoam boxes, white buckets etc.

Community Supported Agriculture – supporting local food growers

Community Gardens – helping to establish demonstration sites for learning & growing together

Community harvest dinners – regular dinner meetings with foods prepared from our harvests

Contact Annette on 0419 303 428 or email beinggreen@live.com.au

Economic Growth doesn't need to Cost the World

Well known economic columnist Ross Gittins, in his column in The Age (11/11/2015) raises the question, "Can we continue increasing our population and material standard of living without doing irreparable damage to the natural environment?"

To answer this question he reports on a ground-breaking, two-year project from the CSIRO – the Australian National Outlook report – in which it integrated a model of the economy with no less than eight models of different aspects of the global and domestic natural environment in which the economy exists.

So, is ecologically sustainable growth possible? Is it possible to "decouple" continuing economic growth from continuing environmental vandalism?

Gittins says that it depends on what you mean by "growth". There's enormous confusion on this point because what economists take the word to mean is not what scientists take it to mean.

What scientists mean by growth is growth in the "throughput" of natural materials and energy – using those resources to generate economic activity and, in the process, turning them into various forms of pollution and other waste.

They point out that such growth simply cannot continue indefinitely because the natural world – the global ecosystem – is of fixed size. But that's not what economists mean by growth. They mean an increase in gross domestic product, (GDP), most of which is caused by increased productivity (efficiency). It may or may not involve an increase in the economy's throughput of natural resources.

So what does the CSIRO's modelling say about whether we can continue to grow without inflicting further damage on the environment? It says GDP can continue growing strongly, but throughput of natural resources can't. So the people who want continued growth in GDP win, but so do those saying ever-increasing use of natural resources must stop.

CSIRO's economists and scientists ran through their super model eighteen different scenarios covering different rates of growth in the global population, different degrees of global action to restrain climate change and a range of differing development in Australia and its economy.

All 18 scenarios project continuing strong growth in Australia's population and GDP out to 2050. But only three of those scenarios also saw improvement or no further deterioration on the model's three key indicators of environmental health: emissions of greenhouse gases, water stress, and loss of native habitat.

All this says ecologically sustainable growth and decoupling do seem to be possible, provided the world gets its act together.

The good news is that the model's results don't rely on "technological optimism" but nor do they require that we renounce our materialist ways and become greenie vegan mud-brick makers. We don't need to do anything we don't already know how to do and, in many cases, have already begun doing. We just need to do a mighty lot more of it.

The bad news is that we can't do it on our own. To achieve improvement in the key environmental indicators and a fall in material throughput we need effective international action to limit the world's population to 8 billion in 2050 and limit global warming to 2 degrees in 2100. This would require "very strong" global and Australian effort to reduce greenhouse emissions.

Very strong translates as a worldwide price per tonne of carbon dioxide emissions of \$50 in today's dollars.

These world prices would be applied in Australia. But we'd have a comparative advantage over many countries that would reduce the carbon price's adverse effects on our economy: we could achieve up to half our required reduction in net emissions by "carbon sequestration" – reforestation of cleared land, either with one species of eucalypt (to maximise sequestration) or a range of eucalypts (to also restore native habitat).

At these carbon prices, our farmers could earn up to five times what they make from using the land to produce beef.

Our greenhouse emissions per person would fall from five times the global average in 1990 to below average by 2050.

Our biggest problem would be avoiding water stress, particularly because reforestation would add to the problem. The price of water for agriculture would be a lot higher and, in the cities, we'd have to do a lot more desalination and water recycling for industrial use.

Gittins concludes his article by stating, "I don't regard this as the last word on the subject. All modelling is far from infallible and this exercise is no different. The good thing is that at last we've made a start at reconciling our materialist ambitions with the constraints imposed by the natural environment we hope to continue living in."



Chief Scientist's vision - zero emissions electricity

Prime Minister Malcolm Turnbull recently announced that Monash University Chancellor Dr Alan Finkel would be Australia's next Chief Scientist, replacing Professor Ian Chubb in January 2016. Speaking at Parliament House following the announcement, Dr Finkel said it was "critically important" that Australia reduce its carbon emissions.

"My vision is for a country, society and world where we don't use any coal, oil or natural gas, because we have zero emissions electricity," he said. "But you can't get there overnight."

He said his "dream" of an "electric planet" involved generating four or five times the electricity needed from a range of zero-emission sources for "an abundance of electricity to replace oil for transport and gas for heating." Dr Finkel stressed he was not "coming in with magical solutions no one has thought of" but would advise the government on a "nuanced response" to the issue.

Battery storage to become 'the norm'

A few years ago, electricity in Australia was cheap. Now we pay some of the highest prices in the world.

This dramatic increase has been driven not by the actual cost of the energy you use, but by a massive spike in network charges. This has been caused by an over-investment in the poles and wires, otherwise known as 'gold-plating' which benefits the owners of the networks.

The continual increase in electricity prices has been a significant motivation to install rooftop solar panels for many Australian households. Now with the recent developments in battery systems people are looking to leave the grid.

Paul Nahi, CEO of Enphase Energy, a California-based technology company, says battery storage will become "the norm" for Australian households in a few as three years because of the savings to be made from combining it with rooftop solar panels.

Enphase Energy has chosen Australia for the global launch of its new solar battery system that combines solar generation, energy control and battery storage because there's no better place for batteries right now than Australia. "Even Europe doesn't have quite the environment that Australia does today," says Paul Nahi. "Australia is very forward-looking as a leader of solar, and a very mature solar market. The next step in energy, beyond solar, is storage, and Australia is really the first to take a step in that direction."

There are a few reasons for that, says Penelope Crossley, a specialist in energy and resources law, and the senior industry advisor to the Australian Energy Storage Alliance. "We have excellent solar resources, very high penetration of residential solar, and in addition we've got exceptionally high electricity prices."

In driving up their charges, the networks have helped make Australia the best market in the world for solar

storage - the very thing that will enable network customers to get away from using the grid.

Mr Nahi said storage was driving a 'revolution' in energy supply, accelerating the move to distributed generation. It would lead to a new kind of grid using "residential energy systems and commercial energy systems, along with centralised power production."

Sources:

'The Big Disconnect' Background Briefing, Radio National, 8/11/2015

'Energy storage innovation to drive revolution in power grids', Angela Macdonald-Smith, *The Age*, 7/10/15

A Day in the Gardens

On Sunday 8th November BSGF once again participated in the 'Day in the Gardens' event with a stand and our volunteers providing information to the public and answering questions.



Thanks to everyone who helped to make this day such a success.

Why Are We Still Mining Coal?

Back in October 2014 the then Prime Minister Tony Abbott proudly stated coal is "good for humanity" and will be the "world's main energy source for decades to come" when he was opening a new \$3.9 billion coal mine in central Queensland.

In his view "coal is good for prosperity, coal is an essential part of our economic future, here in Australia, and right around the world". The "good for humanity" statement met with a considerable backlash, not the least from people with an interest in the health and wellbeing of the human race – let alone the planet. The statement seemed to not only ignore the reality of climate change and the need to move to more sustainable sources of energy, but also ignored the evidence that every aspect of coal's life cycle – mining, transportation, combustion and the disposal of waste – produces pollutants that affect human health. It also supported and attempted to justify Australia's reliance on coal mining as an industry which will bring us economic prosperity in the future. Now 12 months later and with a new Prime Minister, this opinion continues to be voiced by our politicians and those who have influence over them.

It would seem that this position continues to be seen as a 'moral' one. The Minister for Resources, Josh Frydenberg, defended the coal industry and in particular the Carmichael mega-mine in Queensland proposed by the Indian conglomerate Adani, on ABC's *Insiders* on Sunday 18th October. He stated that "it will lift hundreds of millions out of energy poverty not just in India but across the developing world". This claim has always puzzled me. Does this mean those people living in poverty in India, and other places in the developing world, have access to the poles and wires necessary to distribute this form of energy? Is it true that all they really need to do is "plug in"? Given the cost of not only developing but maintaining poles and wires infrastructure, is this really the best form of energy to "lift hundreds of millions out of energy poverty"? Thankfully there are many examples of individual solar units being installed and working effectively in exactly these circumstances. It would seem that this would be at least one of many, far more cost effective and environmentally friendly solutions to this problem.

In relation to health, Mr Frydenberg would also have us believe that "more than two billion people today are using wood and dung for their cooking which leads to 4.3 million premature deaths". In fact a World Health Organisation Report released late in 2014, gave a more comprehensive account of this statistic. It highlighted the dangers of burning fuels like unprocessed coal and kerosene in the home, and set targets for reducing emissions of health-damaging pollutants from domestic cook stoves, space heaters and fuel-based lamps. In fact the WHO report stated that **"according to the estimates, some 4.3 million people worldwide die every year from household air pollution emitted by rudimentary biomass and coal cook stoves"**.

So where does Mr Frydenberg get his information from? Apparently his claims closely mirror a 'fact sheet' produced by the Minerals Council of Australia which appears to have selectively reported facts from the WHO report. Clearly our politicians or Mr Frydenberg at least, are heavily influenced by the opinions expressed by the corporate leaders of The Minerals Council of Australia, even if they do only partly reflect the findings of organisations such as the WHO. To my mind this is very misleading and reinforces the need for members of the public to receive with some scepticism information provided by our politicians.

Ian Dunlop, a former oil, gas and coal industry executive, past CEO of the Australian Institute of Company Directors and most importantly Chairman of the Australian Coal Association some 25 years ago, says that there is an irrational mindset still dominant among many at the top of the Australian Corporate World, including the Minerals Council. They clearly do not accept the challenges facing us in relation to climate change. The tragedy is however that they clearly have the ear of government and are playing a key role in the determination of Australia's future, which includes yours, mine and future generations.

So is there a strong moral case for helping nations like India address 'energy poverty'? I think that most Australians agree that there is, but what type of help will be most effective in terms of long term outcomes? The position put forward by Greens deputy leader Larissa Waters seems more appropriate than the ongoing mining and processing of coal. "Building electricity grids is slow and expensive and the much cheaper, healthier solution is localised renewable energy. There's a strong moral case for Australia to help develop the renewable energy technology that will safely provide people in developing countries with power".

So why are we still mining coal? It would seem that many of our current politicians are unable to resist powerful interests in relation to mining in general, coal mining in particular. With Prime Minister Turnbull's public support for technology and innovation we can only hope that this will change in the near future. Only time will tell.

Sources:

Coal 'good for humanity', Prime Minister Tony Abbott
<http://www.abc.net.au/news/2014-10-13/coal-is-good-for-humanity-pm-tony-abbott-says/5810244>

WHO sets benchmarks to reduce health damage
<http://www.who.int/mediacentre/news/releases/2014/indoor-air-pollution/en/>

Climate Council Briefing Paper: Health Effects of Coal
<https://www.climatecouncil.org.au/health-effects-of-coal>

Coal mission of the willing by *Mke Secombe*, The Saturday Paper October 24 – 30 2015 p10.

Iron, coal prices up in flames: analysts by *Gareth Hutchens and Heath Aston*, The Age October 19 2015

Freida Andrews

People's Climate March in Melbourne

On Friday 27th November members of BSGF joined with other like-minded people from the region to travel from Euroa to Melbourne to participate in the People's Climate March.

It was a very positive experience to hear the excellent speakers, join with a friendly crowd but with strong convictions and, hopefully, send a message to our leaders that we want more action.



The 'Climate Guardians' above gave an impressive display and have since made an appearance in Paris - not marching of course, but silently getting their message across.

The following weekend even more people gathered in capital and regional cities to gain 'Climate Justice Now' as the chant went out.

Let us hope that the message travels all the way to Paris and we do see action, not procrastination.

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**Benalla
Sustainable
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*"We are the first generation to feel the impacts of climate change,
and the last generation to be able to do something about it." US President, Barack Obama*