



Benalla Sustainable Future Group

Newsletter 35

February 2024

Benalla Sustainable
Future Group Inc.
PO Box 642
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President's Message

Virtually every day, we read of some weather related disaster around the world that Climate Scientists attribute wholly or partly to climate change. We have in recent years experienced a number of these severe events in Australia – fires, floods and violent wind storms – as well as the long ago predicted average temperature increases.

In spite of these events becoming more frequent and intense, governments at all levels have been slow to act. I am flabbergasted, as no doubt you all are, that there are still new fossil fuel extraction projects being approved and constructed, and simultaneously, there is a lack of will to fix the problems in the national electricity grid to cope with the rapid increase in renewables.

In the transport sector, we still allow vehicles with unsatisfactory emission standards to be imported into Australia, although thankfully, that may be about to change. However, the roll out of adequate and reliable numbers of EV charging stations must accelerate if this country is to rapidly decrease the emissions from transportation.

In Benalla, we have just one EV charging facility centrally located in the Denny St carpark – totally inadequate for a city of 9000 people, and especially so for the folk travelling from Melbourne who will be looking for a break after 2 hours of driving. Last year saw a large percentage increase in EV sales in Australia, and it is expected that this trend will accelerate as battery prices reduce by up to 40% in the next 12 months, and there are less 'high emission' vehicles imported into Australia.

I would like to think that we can have a more 'progressive' Council elected in Benalla this year - one that will tackle the issue of emissions reduction and climate change mitigation with urgency; that will vote to create many more green and cool spaces in our communities; that will enable many more EV charging stations to be installed; that will stand up to property

developers and builders and insist on environmentally sustainable subdivisions and energy efficient housing designs; that will find many more ways to reduce waste to landfill by establishing more accessible recycling facilities; and one that will lead by example by ensuring their own operations rapidly head towards net zero emissions.

I want to commend the members of BSFG who are constantly searching for solutions to the problems I have outlined above (and others that I haven't mentioned!). I am constantly amazed by the ideas and actions that occur, and think how fortunate we are to have these people in our community. Please seriously consider joining one of our Action Groups (you will find information on our BSFG website), and help bring about the change that is essential for the community to survive and thrive.

Finally, after five years as President, I am definitely retiring from that position at our AGM in May. I know there are many concerned and very capable people who can fill this role of leader and spokesperson for BSFG, so please talk to me or other committee members over the next couple of months – rest assured you will receive the support of a wonderful committee, as I have experienced during my term.

Peter Holmes

Next General Meeting

7.30 - 9.30 pm Thursday 22nd February 2024

Benalla Uniting Church Meeting Room

Guest speaker: Andie Guerin

Environmental consultant, Andie Guerin, from the [Regent Honeyeater Project](#), will share his knowledge on local plants that would be suitable for planting on our nature strips, and what conditions we need to consider when selecting plants. Your nature strip can be more than just grass! Many of these plants will be ideal for our gardens too.

Judy Schwarzman
Secretary

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

Experiencing an Electric Vehicle

At the BSFG meeting in May last year, Russell Klose of Kilowatt Cars in Yackandandah demonstrated and spoke on EVs, and offered BSFG a loan vehicle for members and friends to be able to experience an EV through an 'extended test drive'.

David Blore and Kevin Smith followed up with Russell and picked up his Nissan Leaf in January to bring to Benalla. So far we have had around half a dozen members and friends try the car, some taking it for an overnight test and experiencing the home charging task. The list of interested people is around 20 and growing, so if you're interested you will need to get in quick before it is returned to Russell in the next couple of weeks!

A quick sample of comments so far from our testers include:

On the positive side:

- Great. Love it!
- Would certainly consider something like this
- Quiet and zippy
- Love how it doesn't roll back!
- Good cruise control
- (if it had V2L capability) good for emergency use in the home

A few downsides were noted:

- No spare tyre (seems to be space under the false floor of the boot)
- Lack of an electric back door closer
- Low profile tyres no good for rough tracks
- Range anxiety

(Note: of the above concerns, only the range issue is specific to an EV)

The model Leaf supplied by Russell is the one with a 40 kWh battery, with a nominal range of 240 km. There is also a model with a 60 kWh size battery with a commensurately larger range. Range is greatly affected by speed, terrain and (less so) use of aircon, lights and other features.

For those interested, V2L is a feature some EVs have which allows the vehicle battery to be used to power the home. Since a Tesla home battery is around 11-12 kwh, the advantage of having an EV with this capability is obvious, and examples occurred in the recent Queensland flood power blackouts where EVs were used to power home-based medical devices (reports in The Age and Guardian)!



Peter Holmes gives the thumbs up to his EV driving experience



It should be emphasised that we are undertaking the extended test drive program with no obligation, and BSFG does not have any relationship with Kilowatt Cars other than being able to benefit from the kind offer for us to experience an EV in real life including at our homes for extended test drives.

Currently, cars from Kilowatt Cars range in price from \$16,500 to \$24,000 for the Gen 1 Leaf with either a 20 or 30 kWh battery, to \$26,000 to \$44,000 for a Gen 2 Leaf with either the 40 kWh battery (as in the loan vehicle enjoyed by BSFG) or a 62 kWh size battery. For comparison, new all-electric vehicles (EVs) in Australia can cost between \$40,000 and \$200,000. There are also many plug-in hybrid electric vehicles (PHEV) on the market, which range in price from \$46,000 to \$500,000+. EVs dropped in price in 2023 by 30% on average, due mainly to Tesla bringing in a significant price reduction on its models.

So far nearly 30 people have enjoyed the opportunity to drive the Leaf in and around Benalla, with some longer trips included. Overwhelmingly, the feedback is very positive and a number have commented that it will bring forward their own transition to an EV compared to their previous thinking. The only negative issue from one or two users concerned range anxiety; this can be overcome with a little planning and (in the future) by more charging stations in the rural area. As well, battery performance and range is continually improving with each new model arriving, so it's a short term issue at best.

The new preferred fuel efficiency standards announced by the government in the last 24 hours for introduction in 2025 will assist the penetration of EVs into the Australian market, reduce operating costs to motorists and reduce the number of older inefficient types of vehicle imports. Australia is one of the last developed countries in the world to bring in such standards, so it is a long overdue initiative.

David Blore



Using an EV for Emergency Power and Reducing Power Bills

I am very keen to get an EV as our next car and have been watching the market evolve in Australia for some years. The obvious first reason for this is to say goodbye to fossil fuels!

We have now come to a point in time when a good selection of vehicles is available and the entry prices have come down. It has now reached a stage where the total cost of ownership (capital cost and running cost) has tipped in favour of electric vehicles. You just need that upfront capital cost which now starts at about A\$40,000. In time that is expected to tip more and more in favour of EVs as competition continues to heat up and battery production costs continue to come down - or you get more range/battery for your dollars.

The transition is now well underway and new car sales of ICEs (internal combustion engines) will soon be on a decline. Excellent!

In David's preceding article he remarks on the V2L feature available on some vehicles today. It seems quite remarkable really that for less than five times the cost of a Tesla PowerWall home battery you can get a very smart whole car with five times the battery size.

The V2L capability is about 3.5 kw which is ample to run your fridge and freezer and some lights in an emergency. In our rural area people use generators for backup when the power goes down - which is becoming more frequent. Some people locally have now set up a changeover switch on the house near the meter box to quickly switch over to their generator. We're still running an extension cord in from outside under the front door.

If we had an EV with V2L we could have back up for a week or more without running a generator, if the car was near full charge at the start of the power outage. I expect that would be the case most of the time for us. Most of our commuting is no more than 70 kms per day and we would charge on our return home.

In a bushfire prone area power backup is a really important consideration. Some people don't even have household water when the power goes out as they rely on a pressure pump.

Even in a suburban setting many of the same considerations apply but you may be able to gain an additional advantage. What if you could charge your car in the daytime with your own PV panels and use some of that power in the evening instead of paying for grid power? Can it be done?

You don't want to be running a power cord from your car under the front door to achieve this. Even setting up a changeover switch and using that can become a bit of a chore. It would be nicer to have some smart electronics to achieve the desired result.

Such a system exists! In exploring V2L on the internet I came across [this article](#) by David Hiley:

'How to Power Your Home from an EV with V2L'

I won't reproduce the whole article here - but basically it explains about using a hybrid single-phase inverter that has an input ready for a generator that can be used to connect to your car.

The inverter that David Hiley has used is a [Deye 5 kW single phase hybrid inverter](#) but there may be others available.

David Hiley says, "While not a totally seamless and hands-off solution, this V2L 'home power hack' could support many current and prospective EV owners, now and into the future".

He also notes that, "This isn't sufficient to power the average on-grid home on its own".

It's an excellent article and contains a list of key considerations which should answer many of your questions.

Of course all this costs money and in our household that becomes a joint decision (maintaining 56 years of happy marriage). Pam had an interesting question. "If you had all this would you still remain connected to the grid?"

It seems to me that an EV can be considered as just a battery on wheels. Off-grid systems use a large battery with the size determined by the household consumption, the size and number of PV panels and the expected days without sunshine that you need to cope with. Is it now cheaper to buy a secondhand EV and just park it to use the battery?

And to answer Pam's question, having the grid available is good insurance. The power companies have a daily charge which they have been hiking up while paying less and less feed-in tariff. Currently the daily charge is not outrageous but who knows where it might go in future.

It's also a benefit to the whole grid (the whole NEM) if people have PV panels and home batteries to help eliminate fossil fuels and to shift power from daytime to morning and evening peak hours. The more distributed the system then the less new transmission towers need to be built.



The MG4 (shown above) is a vehicle available with V2L as standard.

The base model is advertised around \$42,000 drive away and comes with a 51 kWh battery. You pay an extra \$5,000 for the next model up which comes with a 64 kWh battery.

As per some of the comments received by David during his Nissan Leaf test drives, the ground clearance (150 mm) and low profile tyres of the MG4 are a concern for country driving. Currently we drive a Subaru XV with a set of tough standard tyres and good ground clearance. Subaru now has the Solterra EV available for pre-order with 'class leading ground clearance (212 mm) and capability' but it's twice the price of an MG4. No thanks!

In conclusion, choose an EV to suit your needs and your pocket. Just never buy an ICE vehicle again!

Ian Herbert

Dieter's Test Drive

I had the Nissan Leaf at our place in Swanpool for a day to experience it. Peter Holmes delivered it in the evening and we put it on charge, so in the morning it showed 100% state of charge (SOC).

Next morning I had some banking to do in Mansfield, so I drove it there. It was easy to get used to, including the one pedal driving, with sufficient get up and go even in Eco mode !

By midday I was back home and the SOC was 66% (approx 70 km), so perfectly in line with the expected total range of a bit over 200 km with the small 40 kWh battery. I plugged it back in for about 2 hours and by then the SOC was 78%.

But I wanted to get a good feel for what it really can do, so we took it on a harder excursion: up to Mt Samaria and down again to Mansfield, over 50 km of bad dirt roads for a total trip of around 100 km.

The suspension coped admirably with that challenge (obviously I took it steady), but as you would expect, on the way up the mountain the forecast remaining range dropped significantly; so much so that Marlies got really concerned that we wouldn't make it and might get stuck somewhere in the outback with a flat battery!

However, I was aware that that particular stretch would eat up quite a few kWh and, as expected, on our way down the mountain the remaining range kept solid or even improved slightly, so that we had no problem completing the circuit.

All round, the car dealt very well with what ever the bad road threw at it - no tug on the steering wheel, no spinning front wheels (which had been a bit of a concern for me). So, even the fact that it is front wheel drive was not a problem.

By the time we got back home (approx 100 km total trip) we still had 23% charge left, which is not far out from my original estimate of using 50% of charge for that trip; and since we had started at 78%, I thought we would be back at 28%.

So, only a smallish reduction for the fact that we had a bad road and steep hills for a long time and altogether an excellent result.

I put it back on charge for another hour, now back to 23%, and then it was time to take it back to David in Benalla on 20% again. (Apologies to David for getting it back with so little charge left).

In total, it was a very satisfactory experience, and yes, I would consider buying one if it had towing capacity and a bit higher ground clearance.

Dieter Liebrich



Agroforestry, Nurturing a Wood Culture

I have had the good fortune recently to be involved in several workshops run by [The Future of Benalla Project](#). The Project Officer is Matthew Currie. These workshops were facilitated by Bruce Wilson from RMIT using the EU [Smart Specialisation Strategy](#).

The first workshop was on the Eucalypt Derived Health Products project which will be growing eucalypt trees in the district for eventual extraction of beneficial health compounds. This is a commercial development of Gretals Australia, <https://www.gretals.com/>

The other workshop on Monday 5th February was on Farm/Agroforestry and was held at the Taggerty Hall. Susan Campbell and I had the good fortune to get a lift to Taggerty with Matthew Currie.

Before breaking into groups to brainstorm ideas about a local Farm/Agroforestry industry, Tony Richardson, a local grower, gave a particularly good presentation describing agroforestry in the Taggerty District. He highlighted the work of John Woodley who commenced planting on his Taggerty Property in 1995, <https://farmforestry.com.au/> which includes an arboretum, <https://farmforestry.com.au/arboretum.html>

Due to John's ill health, it is planned to develop a virtual arboretum. John was influenced by the National Arboretum of NZ at Gisborne, <https://www.eastwoodhill.org.nz/> [NZ Farm Forestry article about John](#).

We learnt that there is already about 420 ha of Farm/Agroforestry established in Taggerty with potential to develop timber production.

Tony Richardson finished the day with a short presentation on timber Peeling which can use 10-year-old logs to produce several veneer products including laminated beams, plus bio char and wood vinegar. With a Rankine Cycle engine, Solar PV and battery the [Radial Plant at Yarram](#) can be self-contained, off grid.

There is little Farm/Agroforestry established in the Benalla district. One known resource is the spotted gum plantations established on Ian & Pam Herbert's property at Lima East. There is certainly inadequate supply available locally to sustain the large Benalla-based sawmiller Ryan & McNulty.

There is however potential to develop a local interest in timber based around an arboretum and timber processing which could lead to timber production in the longer term.

Even more benefit would accrue if a 'Wood Centre' was established. This is a place where small enterprises could be established sharing knowledge and machinery producing such things as bench tops, cabinet making, musical instruments, tables etc. See for example: <https://sylva.org.uk/initiatives/wood-centre/>

'Nurturing a Wood Culture, Growing a Future'. and we already have the Benalla Woodworkers Association:

<https://www.facebook.com/BenallaWoodies/>

Encouraging the development of a timber-based industry would have both economic and environmental/ecological benefits such as climate adaptation through greening, climate mitigation and biodiversity outcomes.

Peter Maddock.

Council Grants Planning Permit for Multi-Lot Subdivision on Olivers Road

The Benalla Rural City has approved a planning application (P0171/22) for a multi-lot subdivision project located at 17 and 37 Olivers Road, Benalla.

The project involves the creation of 48 residential lots, the removal and creation of easements, and the removal of native vegetation. The decision comes after careful consideration of the proposal under the Planning and Environment Act 1987.

The Council's decision includes a Notice of Decision to Grant a Permit, subject to a comprehensive set of conditions outlined in the minutes from the Finance and Planning Committee held on 14 June 2023. These conditions cover various aspects of the development, ranging from site plans and road construction to landscaping and utility provision.

The permit also highlights the developer's responsibilities in adhering to guidelines and requirements from different authorities. Notably the Department of Energy, Environment and Climate Action has specified offset measures for the removal of native vegetation. The developer must secure native vegetation offsets to mitigate the impact of vegetation removal.

The conditions set forth in the permit must be met within specific timeframes for the different stages of the subdivision.

This decision marks a significant step forward for the multi-lot subdivision project, which will contribute to the ongoing development and growth of housing in Benalla Rural City.

*from Council's monthly meeting held 2 August 2023
as reported in the Benalla Ensign 16 August 2023*

Use of Offsets

Our concerns on the using of offsets have been made known to Council and articles were published in the last BSFG newsletter (March 2023).

There are two types of offset under consideration here. The news item above for this subdivision mentions just one of these i.e. offsets imposed by DEECA for the removal of native vegetation. Where will these offsets be planted? Within Benalla Rural City?

The second type of offset is not mentioned in the article. As reported in newsletter 34, there are set amounts of open space to be provided in new estates, but that provision can also be offset. A number of Councils have clear strategies for obtaining and developing land for public open spaces in recognition of its importance to the wellbeing of the local community: sadly Benalla does not have such a strategy in our Planning Scheme.

So, rather than comply with the good intentions of the Planning Act it is far easier and more profitable to just jump straight to the offsets provisions. It's more profitable for the developers and easier for the council. New parkland only means more grass to mow or trees to look after.

BSFG will continue to lobby for more street trees and parkland, inspired by Greg Moore's talk in Benalla last year. [This recent article](#) in The Guardian is well worth a read and just reinforces the message.

City Plants 70 New Trees

More than 70 new trees have been planted in nature strips around Benalla as part of council's annual Tree Planting program.

This initiative, which takes place each year between June and September, enhances the beauty and sustainability of local streets,

Newly planted trees represent a diverse range of species, carefully selected to thrive in the local environment and coexist with roadside infrastructure.

Among the popular species planted this year are Callistemon (Bottlebrush), Grevillea, Eucalyptus, Maleleuca (Paperbarks), Agonis (Willow Myrtle), Acre (Japanese Maple), Fraxinus (Ash), Ulmus (Elm) and Zelkova (Chinese Elm).

Tree species have been carefully selected considering local conditions, climate, and the existing streetscape.

These trees are known for their resilience to pests and diseases, ensuring their long-term quality.

Benalla Rural City Council Mayor Cr Bernie Hearn emphasised the significance of these newly planted trees.

"These trees are not just a part of the environment, they are a significant asset in our streets, parks and reserves," Cr Hearn said.

"This program not only enhances the visual appeal of our streets but provides environmental benefits such as improving air quality, reducing heat and providing habitat for wildlife."

Council is committed to the ongoing care and maintenance of the newly planted trees.

Extensive monitoring and watering is conducted during the first two years of growth, ensuring they become well-established. Residents are encouraged to participate in this effort by watering trees when needed, especially as the weather warms up.

"By working together as a community, we can ensure the success of the 2023 Street Tree planting program and continue to make Benalla Rural City a vibrant and green place to live, work and play," Cr Hearn said.

Benalla Ensign 18th October 2023

Interesting Submitted Article Links:

Crikey: [Australia has no national plan for climate change adaptation. Why?](#)

News: [A state government has acted on growing calls to ban popular dark-coloured roof home design trend](#)

The Driven: [Why electric trucks, not hydrogen, are our best bet to cut road transport emissions](#)

Renew Economy: [Nuclear goes backwards, again, as wind and solar enjoy another year of record growth](#)

One Step Off the Grid: [How do I use air conditioning efficiently - blast it briefly through the day, or just leave it on?](#)

The Guardian: [Regenerative agriculture is the new farming buzzword, but few can agree what it means](#)

John Menadue: [Stop dissembling: International Climate Emergency Mobilisation is essential - now](#)

The Conversation: [The green energy surge still isn't enough for 1.5 degrees. We'll have to overshoot, adapt and soak up carbon dioxide](#)

News in Knox **Knox Leading Towards Net Zero**

Knox City Council has joined forces with 23 other Victorian councils to push for greater sustainability requirements for new development.

Council has lodged a planning scheme amendment with the Victorian Government, seeking to elevate sustainability requirements for new buildings and encourage a move towards net zero carbon development.

The amendment seeks to build on the current Environmentally Sustainable Development (ESD) requirements for new developments and in doing so, better protect the natural environment, reduce resource and energy consumption, and support the health and well-being of future occupants.

Knox Mayor, Cr Susan Laukens, said Council was leading the way on tackling climate change with these real-world tangible actions.

Along with the amendment, Knox City Council has written to the new Minister for Planning, Lizzie Blandthorn, asking her to support the amendment and to acknowledge that the current planning requirements do not reflect the urgency needed to tackle climate change.

The amendment is the next step in improving ESD requirements with detailed, measurable targets that will deliver meaningful outcomes in practice.

Under the proposed changes, new developments would:

- Produce net zero carbon emissions
- Reduce household bills by making buildings more energy efficient
- Provide a healthier and more comfortable environment for building occupants
- Better manage water quality, use and collection
- Protect and enhance greening and biodiversity
- Be more resilient to changing climate impacts

Knox City Council is undertaking this work as a member of the Council Alliance for a Sustainable Built Environment (CASBE) supported by the Municipal Association of Victoria (MAV).

Knox City Council 21 July 2022

Note: Benalla Rural City is not one of the 23 members of CASBE.

Knox City achievements in 2022-2023 include:

- Installed 7 electric vehicle (EV) charging stations; 3 for public use, and 4 for council fleet
- Upgraded 500 street lights to energy efficient LEDs
- Planted 39,611 plants; 38,000 are indigenous and 1,611 are trees
- Installed 100 kW of rooftop solar, and 76 kWh of batteries across five Council sites

Of the 55 actions outlined in the 2021 Climate Response Plan, Knox City have completed 9 to date, and 26 actions are on schedule. For 2023-24, key focuses include upgrading approximately 1,500 more street lights to LEDs, and installing four more EV public charging stations.

Well done Knox City!

No Foil for the Soil **Medication 'Blister Packs'**

Blister packs (the foil holding tablets for medication) are found everywhere. There are two sorts:

The all-foil ones:

These can be recycled directly into your own recycling bin (the yellow lid) as long as they are larger than a credit card. If smaller, they fall between the grates of the recycling equipment and end up in landfill. Small individual packs can however be wrapped up into a golfball size and recycled in your yellow bin, as with other foil.

Metal and plastic ones:

These can be identified simply by looking through the space where the tablet was; if transparent or white, they are the combined metal and plastic type. These are more difficult to recycle, needing a different process. Terracycle have a box designed for this purpose, but it comes at a cost.

Benalla's Terry White Chemist (former Amcal)
is now a drop-off point for these packs.



Note: The 'Webster packs' used to assist organisation of a number of different medications are not foil but paper and thus can be simply recycled.

Kay Blore



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Benalla
Sustainable
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Group

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