



MINUTES

Climate Change Working Group Meeting

30 November 2020

**MINUTES OF THE KYOGLE COUNCIL
CLIMATE CHANGE WORKING GROUP MEETING
HELD AT KMI HALL SUPPER ROOM, ROXY LANE, KYOGLE
ON MONDAY, 30 NOVEMBER 2020 AT 9.45AM**

Meeting commenced: 9.45am

Acknowledgement of Country

Cr John Burley (Chair) acknowledged that the meeting was being held on the traditional lands of the Bundjalung people and acknowledged Elders past, present and emerging.

Present: Cr John Burley (Chair), Dr Arthur Webb, Robert Drury, Roger Small, Dr Kym Watling, Dr Genevieve Larsen, Shane Noon, Matt Sorenson, Maree Brennan, Suzie Coulston, Judy Faulks.

1. Apologies

Cr Maggie May, Cr Kylie Thomas, Graham Kennett, Karen Webb, Tony Lickiss.

2. Confirmation of Minutes

The Working Group agreed to confirm the minutes of the Climate Change Working Group meeting held on 19 October 2020. **MOVED:** Rob Drury **SECONDED:** Maree Brennan

3. Follow-up of Actions from Meeting held 31 August 2020 – For information / comment

Action 4.1 Creating Biochar as a future workshop topic

For information of the Working Group – Mara Seeds at Mallanganee have started producing Biochar (https://maraseeds.com.au/biochar_home.php) and they would be another source of knowledge regarding how it works, what properties it has, benefits and market opportunities.

The Working Group agreed that Mara Seeds would be a good source of information regarding biochar, its benefits with regard to carbon sequestration and reducing methane emissions.

Further action 4.1:

- (1) Contact Mara Seeds at Mallanganee to see if they would either be available to give a presentation to the Working Group regarding Biochar or whether the Working Group could undertake a field trip to their facility.

Action 5.1 Kyogle 2018 January – December municipal emissions snapshot

Is Net Zero Emissions team aware of the omission of cylinder gas emissions in this and other regional snapshots?

Response from Net Zero Emissions team:

No response received to date. Malcolm Robertson is following up this response with Net Zero Emissions team. Response to be circulated to the Working Group when received and for discussion at next meeting.

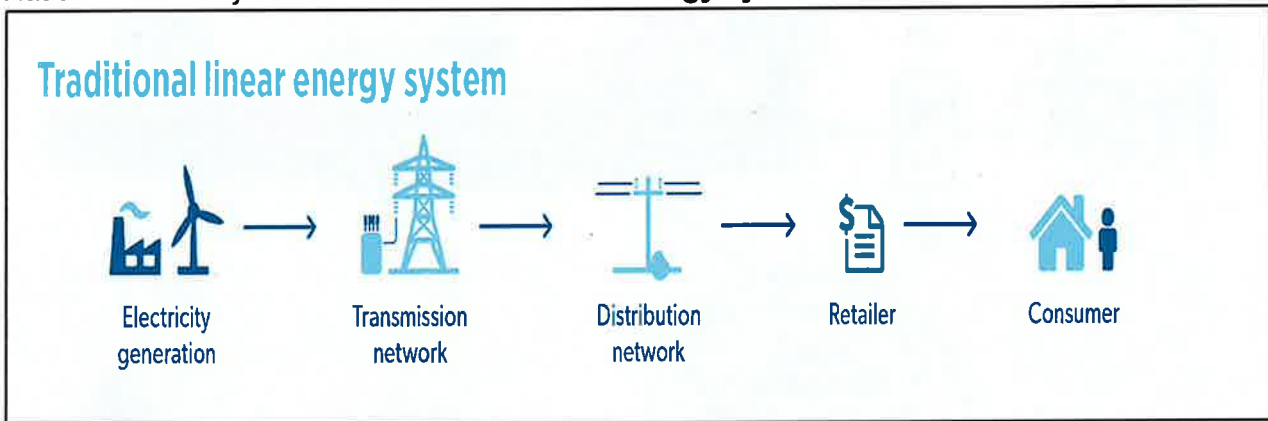
4. Virtual Power Plants and Microgrids

Genevieve Larsen to investigate Virtual Power Plants and Microgrids to assist with explaining what the different systems are and provide a summary for the November meeting.

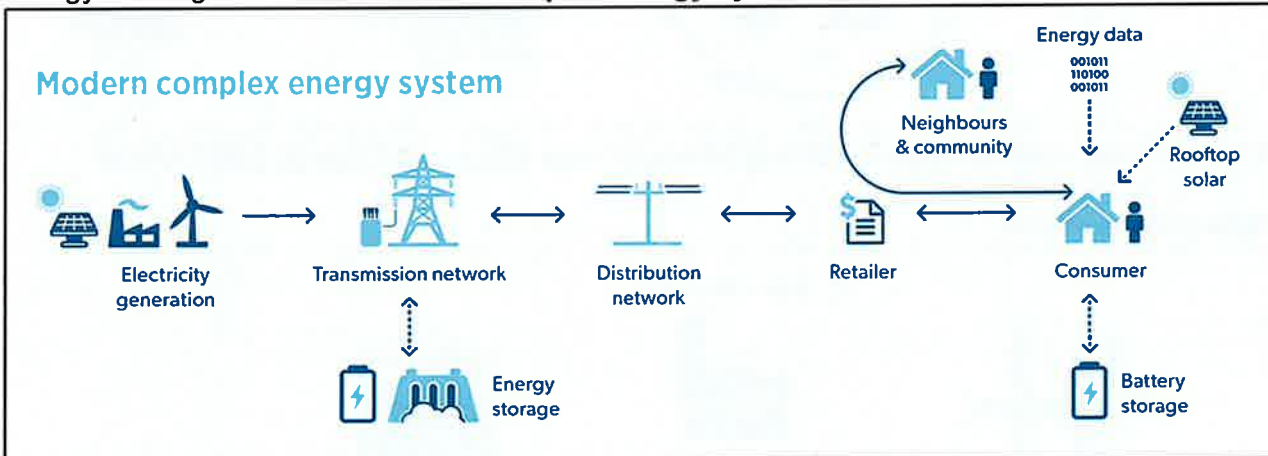
Genevieve Larsen presented background information on Peer to Peer (P2P) Energy Sharing, Microgrids and Virtual Power Plants (summarised in her handout 'Electricity Generation & Distribution Systems' that was distributed with Agenda). Links to the following three short videos that were viewed by the Working Group showing three projects/case studies include:

- Video 1: Wongan-Balladu Peer to Peer (<https://www.powerledger.io/client/wongan-ballidu/>)
- Video 2: Birchip Microgrid Case Study (<https://www.switchdin.com/blog/2019/10/31/video-birchip-cropping-group-microgrid-case-study>)
- Video 3: Z-NET Uralla (<https://www.100-percent.org/uralla-nsw-australia/>)

National Electricity Market – **Traditional linear energy system:**

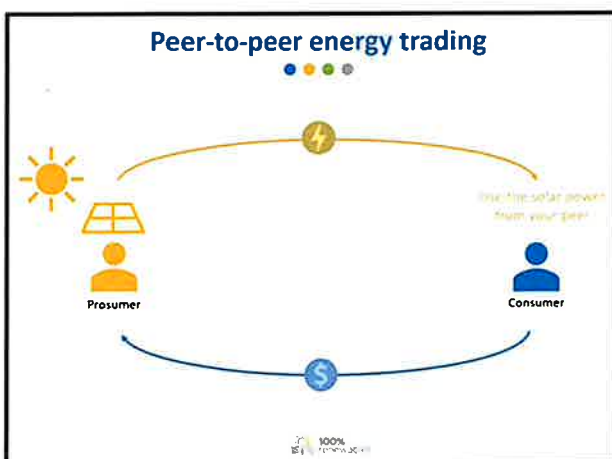


Energy Sharing Networks – **Modern complex energy system:**



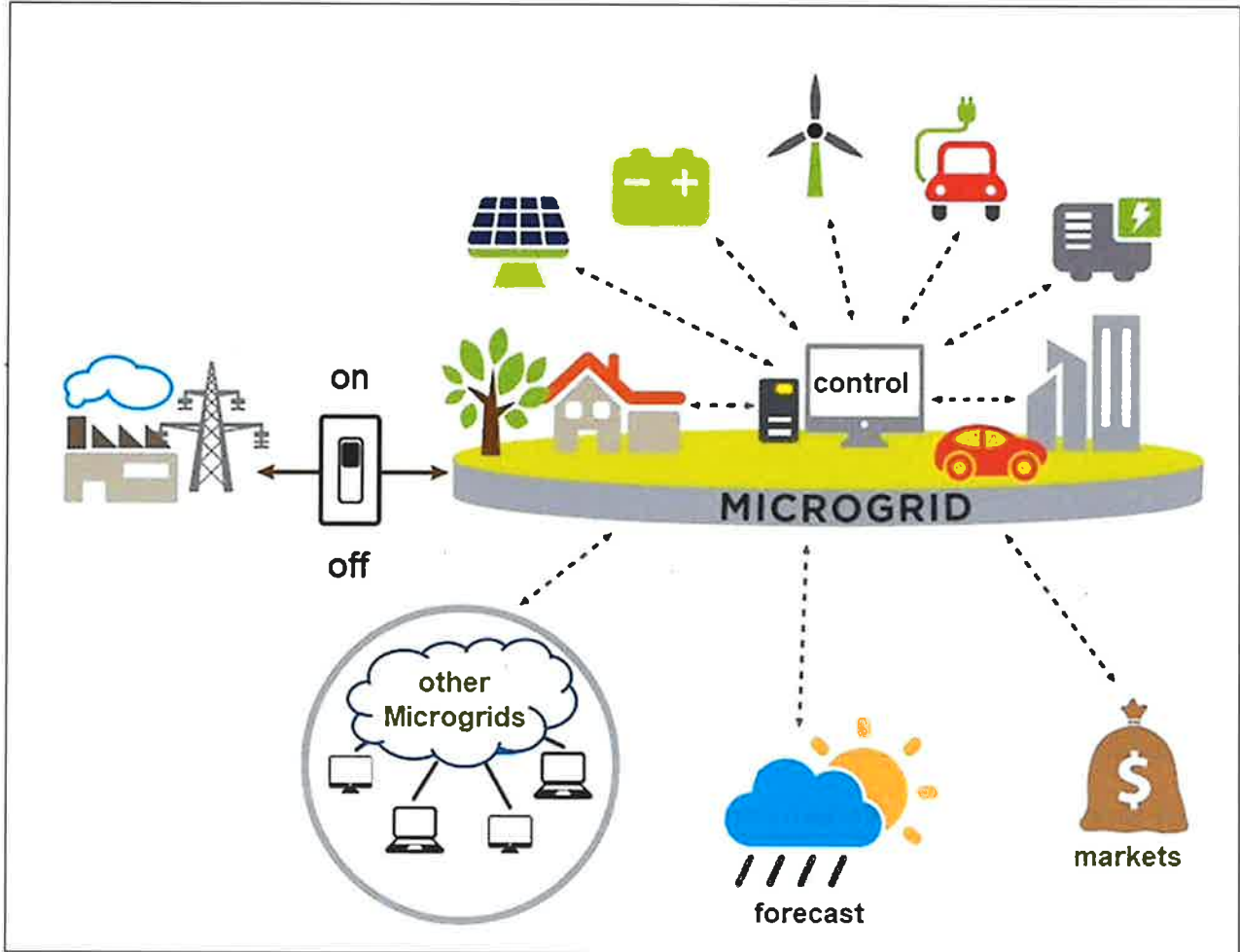
Note: The distribution network service provider in Kyogle is Essential Energy.

Peer to Peer (P2) Energy Sharing:



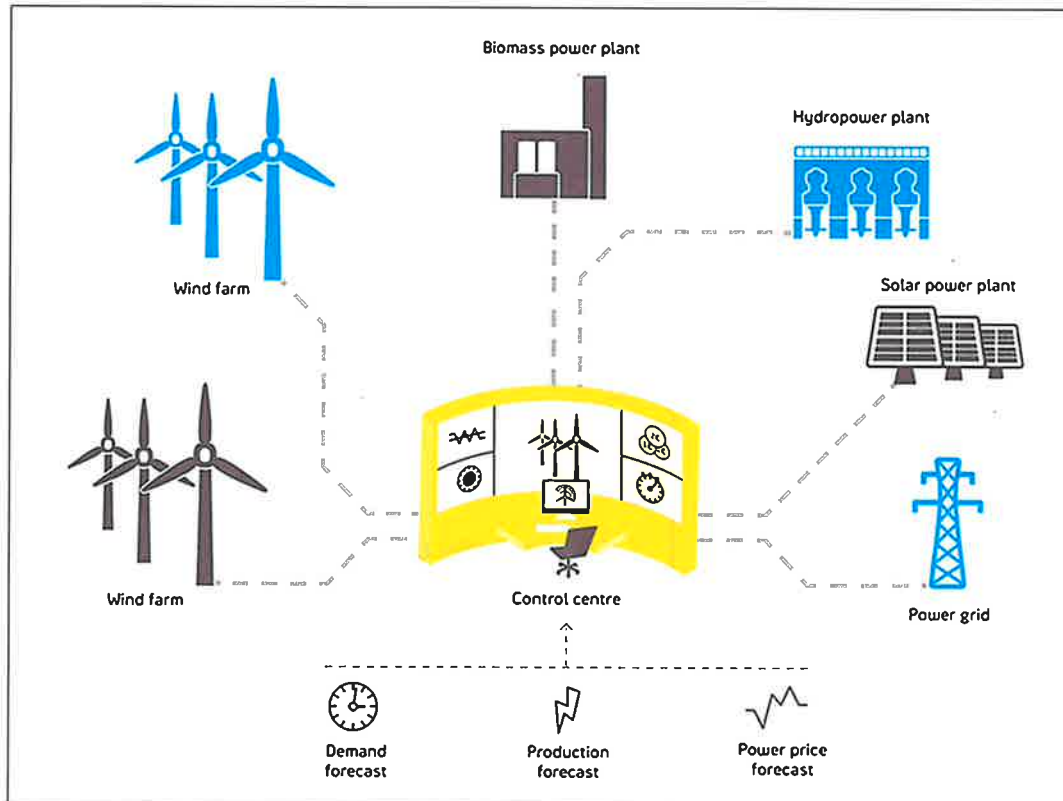
e.g. refer case study Video 1 – Wongan-Ballidu P2P

Microgrids:



(e.g. refer case studies: Video 2 – Birchip Microgrid Case Study and Video 3: Z-NET Uralla)

Virtual Power Plants:



What is the difference between a MicroGrid and Virtual Power Plants?

Microgrid	Virtual Power Plant
Islanding function	Generally cover a wider area
Defined network boundary	Flexible – can expand and contract operation area
Option to serve main grid (or other microgrids)	Serve the main grid

Major issues/points from the discussion (also refer handout 'Electricity Generation & Distribution Systems'):

- Peer to Peer (P2P) Energy Sharing – is the simplest form of energy sharing (e.g. an organisation like Kyogle Council generating surplus solar power energy at one location could use this energy to supply other buildings that do not have solar). P2P mostly use the existing grid but only use a portion of the distribution network, paying for access to the grid. Issue – No structure in place for energy providers to set prices for using only a portion of the distribution network. Case study example - WA Shire of Wongan-Ballidu – where a P2P energy sharing trial has begun could be a good source of information for Kyogle. Still need to investigate barriers to P2P: generation and distribution costs, Federal and NSW policies and regulations.
- Microgrids – is the next level of energy sharing. Microgrids share renewable energy that is locally generated, stored and distributed. It is, in the simplest sense, an expanded P2P system with power storage. Excess energy can be stored in a centralised super battery for reuse within the microgrid or sold back to the main grid. The microgrid can stay connected to the main grid to sell excess energy and ensure continuity of energy supply or exist in isolation from the main grid. To avoid having to transmit via high voltage lines the power source would need to be close to the supplier. Considered a good model for Kyogle township and possibly LGA-wide. Need to investigate if the previous regulatory barriers, and in turn, viability barriers still exist for establishing microgrids. Price of batteries also seen as an economic barrier. Microgrid case studies: refer Video 2 – Birchip (Vic) Microgrid Case Study and Video 3 – Z-NET Uralla (NSW).
- Z-NET (Zero Net Energy Towns) Uralla, NSW case study – provides useful information that has relevance for Kyogle. The Z-NET Blueprint is a model that has been created for rural towns, villages and regions to be able to assess and design their Z-NET plan to achieve the goal of 100% renewable energy and beyond. Creating a renewable firewood supply within a regional context was also a recommendation by Z-NET. Uralla are looking at not only using renewable energy but also at energy efficiency (how to reduce energy costs) by conducting home/business energy reviews or audits. It was felt that the energy efficiency audit would be transferrable to the Kyogle LGA and that funding under the Bushfire Local Economic Recovery (BLER) Fund could be sought. Applications for BLER funding close 28 January 2021. Funding could be sought for conducting the energy efficiency review/audit on homes and businesses. Local businesses could then conduct the recommended work from the audit creating local employment. To assist with the funding application, the people involved with the Z-NET project in Uralla could be contacted for their project proposal.
- Enova Energy Byron Bay Arts and Industry Estate Microgrid is a pilot project led by Enova Energy in collaboration with Essential Energy, LO3 and the University of NSW. Cost of distribution still high because of the distribution costs and working within the current regulatory framework.
- Virtual Power Plants – SA has one of the world's largest Virtual Power Plants, a network of home solar PV and battery systems working together to generate and store energy, and feed energy into the grid. AGL and Origin have trials underway for Virtual Power Plants. State regulations are a clear barrier to establishing Virtual Power Plants.

- Local planning barriers discussed. Is it still in Kyogle Council's Development Control Plan and as a condition on Development Applications for subdivisions that power must come from the grid? Do developers need to provide power to the edge of each block in a subdivision? Are people who purchase a block of land able to choose where they source their power from? What are the planning rules for subdivisions away from the power grid versus subdivisions close to the power grid and what are the current rules if people want to source renewable energy (e.g. solar) as opposed to using power from the grid? If local planning barriers to utilising renewable energy exist then perhaps this is something Council needs to review.

Actions:

- (1) Genevieve Larsen and Matt Sorenson to investigate current barriers (i.e. regulatory, viability) that exist for establishing Peer to Peer Energy Sharing, Microgrids and Virtual Power Plants and provide a summary for the next meeting.
- (2) Suzie Coulston and Shane Noon to draft up a project outline for funding under BLER funding to conduct an energy efficiency review/audit for homes and businesses in Kyogle LGA and provide the draft funding proposal to the Working Group for comment before submission.
- (3) Judy Faulks to seek advice from Planning regarding questions posed in relation to subdivisions and being able to source power from renewable energy (i.e. are there any planning barriers to utilising renewable energy?) and provide a summary for the next meeting.

5. Draft KCCGWG Community Engagement Plan (Suzie Coulston)

The worksheets and discussion from the Community Engagement Plan workshop have been summarised and these notes were distributed with the Agenda. The summary notes are yet to include completed worksheets from Karen Webb and Arthur Webb. The Working Group have until early January to return their completed worksheets. In January, Suzie Coulston will further tabulate and prioritise information from the worksheets and workshop and will forward a draft document to the Working Group for comment. Cr John Burley suggested that once a year the Working Group could do a workshop for Councillors. A Draft Community Engagement Plan will be tabled for the February meeting.

Actions:

- (1) Karen Webb and any other Working Group member to send in their completed Community Engagement Plan worksheets by early January.
- (2) Suzie Coulston to further tabulate and prioritise information from the worksheets and workshop and will forward a draft document to the Working Group for comment in January.
- (3) A KCCGWG Draft Community Engagement Plan will be tabled for the February meeting.

Suzie Coulston advised the Working Group of the following:

- Kyogle High School are seeking funding for a regenerative agriculture project at the school.
- The Kyogle Environment Group are putting on a presentation – 'Introduction to Regenerative Agriculture' (presented by Marilyn Smith) on 5 December 2020 at 10-11am in the Uniting Church, Fellowship Centre.
- Council has been successful in gaining State Government funding to appoint a Community Resilience Officer for 18 months. Recruitment will commence soon. The person can work with the Climate Change Working Group and look at aspects of community engagement. They will also work with outlying communities to develop resilience plans and administer a small grants program.

6. Divestment (Rob Drury)

Rob Drury presented the following information on Divestment.

Why Divestment? Climate change is a reality. Since 1910, Australia has warmed by 1.44°C and the levels of CO₂ in the atmosphere are accelerating.

There are 5 big issues from the 2020 'State of the Climate' report by CSIRO and BOM (provide this updated report to the Working Group):

1. Temperature extremes beyond anything on record. From 1960 – 2018 only 24 days where the average maximum temperature was above 39°C. 2019 alone there were 33 days above 39°C.
2. This is just the beginning. 2019 bookended the hottest decade on record. In the decades to come 2019 will be seen as just an average year.
3. There is less water flowing through the rivers. BOM has a network of 467 water gauges in rivers and streams across the continent. 222 gauges are on rivers unaffected by irrigators and dams. Three quarters of these gauges show a drop in river flow.
4. CO₂ levels are accelerating in the atmosphere. Monitoring station on Cape Grim (Tas) has been measuring the composition of clean air blowing from the southern oceans since 1976. CO₂ levels have risen from 330 parts per million to 410 part per million.
5. Australia's oceans are getting hotter and are rising. 8 of the 10 warmest years on record for the oceans have occurred since 2010. Area heating the fastest is off Tasmania where the kelp forests are disappearing.

From little things big things grow:

- Divestment from financial institutions that support the fossil fuel industry. Divestment into ethical institutions.
- Divestment serves to delegitimise the business models of companies that are using investors money to search for coal, oil and gas that cannot be safely burned.
- It is a small but crucial step in the economic transition away from the global economy run on fossil fuels.

Rob Drury made the following recommendation for Council:

Notice of Motion to Council:

- That if Council currently has money invested with financial institutions that support the fossil fuel industry that they divest these funds.
- These funds to be invested through ethical institutions.

The motion was MOVED: Rob Drury SECONDED: Kym Watling

Consensus from the Working Group: Notice of Motion to Council PASSED by the Working Group.

Actions:

- (1) Provide Working Group with a copy of the 'State of the Climate' 2020 report produced by CSIRO and BOM (to update the 2018 report).
- (2) Cr John Burley to liaise with Graham Kennett re investigating the financial institutions that Kyogle Council currently invest with to see what positions they have in relation to the support for fossil fuel industries or otherwise. Graham Kennett to provide this information to the Working Group at February 2021 meeting to assist with informing their decision regarding putting the following Notice of Motion to Council from the CCWG:
 - That if Council currently has money invested with financial institutions that support the fossil fuel industry that they divest these funds.
 - These funds to be invested through ethical institutions.

7. Future Direction for the Working Group (Rob Drury)

Rob Drury referred to the Terms of Reference (TOR) for the Working Group and the background reports that have been provided to the group which relate to the TOR :

- 'Review of Climate Change Assessment and Adaptation Initiatives' for Kyogle Council (2019)
- 'Sustainable Councils and Communities Action Plan' for Kyogle Council (2019)
- 'North Coast Enabling Regional Adaptation' (2019)
- 'Guide to Climate Change Risk Assessment for NSW Local Government' (DPIE, 2019)
- 'North Coast Climate Change Snapshot' (AdaptNSW)
- Kyogle 2018 and 2017 Municipal Emissions Snapshot
- 'Net Zero Plan Stage 1: 2020-2030' (DPIE)
- 'Net Zero Emissions Guidance for NSW Council's (DPIE,2020)
- 'NSW Primary Industries Climate Change Research Strategy' (DPI, 2018)
- 'State of the Climate' (BOM & CSIRO, 2018)* Replace with 2020 report

Rob Drury suggested to the Working Group that members could become an expert in an area and that this area could be aligned against either the TOR or functional areas of Kyogle Council:

1. Assets and infrastructure
2. Environment Management and Protection
3. Community Services
4. Land Use Planning and Development
5. Emergency Management and Natural Disaster preparedness
6. Corporate Services

Suggested process: Divide the Working Group into 6 groups (comprising 1 community rep and 1 Council rep (Councillor or staff rep). Each group is responsible for one of the TOR or one of the functional areas of Council and to prepare a report for next meeting. The report is to outline the relevance (or not) of the background reports (if applied to TOR) or provide a summary of what the reports tell us about each of the functional areas of Council – e.g. risks, impact on Council, possible mitigation measures.

Major issues/points from the discussion:

- Council's 'Review of Climate Change Assessment and Adaptation Initiatives' report addresses areas where Council is directly responsible for managing but does not look at adaptation initiatives for e.g. the environment, the Richmond and Clarence Rivers, etc. Council's Action Plan focusses on prioritising and implementing energy efficiency and renewable energy upgrades. It sets targets for renewable energy and carbon emissions associated with electricity.
- Some members felt that there would be a substantial workload involved in re-collating the background reports in accordance with the suggested process.
- As the environment was not addressed in the Council's Adaptation Initiatives or Action Plan that it would be beneficial to have a summary of the background reports in terms of the 'Environment Management and Protection' functional area.
- Water availability discussed. It was noted that an Integrated Water Cycle Management Strategy has been completed by Kyogle Council for the LGA and it makes recommendations for the sustainable provision of water for Kyogle township and villages. It was also noted that Council offers a rebate for rainwater tanks for residents connected to town water supply and sewerage – refer link <https://www.kyogle.nsw.gov.au/infrastructure-environment/waste-water/kyogle-council-water-rebate-scheme/>

Action:

- (1) Rob Drury to review the background reports and summarise the information in terms of the 'Environment Management and Protection' functional area of Council and provide a summary for the February meeting on risks, impacts and possible mitigation measures.

8. Project Drawdown: The World's Leading Resource for Climate Solutions (Matt Sorenson)

Founded in 2014, the project seeks to help the world reach "Drawdown" – the future point in time when levels of greenhouse gases in the atmosphere stop climbing and start to steadily decline. Link to Project Drawdown website: <https://drawdown.org/>

Matt Sorenson provided an article – "Project Drawdown' report says we've already got the tech to reach negative emissions by 2040s" written by ABC Science (link to article <https://www.abc.net.au/news/science/2020-03-03/drawdown-report-climate-change-reducing-emissions-technology/12012118>).

Project Drawdown website was viewed by the Working Group. It provides a range of climate solutions for different sectors (i.e. food, agriculture and landuse; electricity; industry; transportation; buildings; health and education; land sinks; coastal and ocean sinks; engineered sinks). It was suggested that the Working Group could develop possible projects based on these solutions.

It was stressed that there is a national level of urgency to do something about renewables and to meet emission targets. With regard to agricultural climate solutions it was noted that we have to treat the use of the land and engaging with the current primary producers as something that needs to occur now rather than leaving it to engage with the next generation as this may be too late. It was suggested that a way to do this was to involve the young farmer groups and movements and that this could be further addressed in the Community Engagement Plan. Other emissions that could be addressed – organics in waste and the management of gases from air conditioners.

Action:

- (1) Working Group to familiarise themselves with the Project Drawdown website and solutions and decide on whether there are any possible projects that could be developed (based on the outlined solutions).

9. **Action Plan – Status** (attached). The actions were noted.

10. Agenda Items for Next Meeting

- Actions from this meeting – Mara Seeds possible presentation or visit; response from Net Zero Emissions; current barriers for establishing energy sharing networks; BLER funding for conducting an energy efficiency audit for homes and businesses; summary of any planning barriers to utilising renewable energy; Draft Community Engagement Strategy; divestment motion for Council; risks, impacts and mitigation measures in relation to the environment management and protection functional area of Council; possible projects from Project Drawdown website and solutions.
- Presentation by Dr Arthur Webb on climate change based on his work in the Pacific Island region as a climate change scientist.
- Community Representative replacement on CCWG for Rob Drury who will be on leave from March 2021 for 6 months.
- Summary by Dr Kym Watling on the Kyogle Environment Group presentation on 'Introduction to Regenerative Agriculture' held 5 December 2020.

11. Close of Meeting 12.25pm

12. Next Meeting

The next meeting will be held on Monday, 22 February 2021 at 9.30am (for morning tea) with the meeting to commence at 9.45am – 12.30pm in the KMI Hall Supper Room, Roxy Lane, Kyogle.

The minutes of this meeting were confirmed at the Climate Change Working Group Meeting held on 22 February 2021.



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JOHN BURLEY, CHAIRPERSON