MINUTES

Climate Change Working Group Meeting

1 May 2023

MINUTES OF THE KYOGLE COUNCIL CLIMATE CHANGE WORKING GROUP MEETING HELD AT KMI HALL SUPPER ROOM, ROXY LANE, KYOGLE ON MONDAY, 1 MAY 2023 AT 9.45AM

Meeting commenced: 9.48 am

Acknowledgement of Country
Cr Tom Cooper (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 Tom Cooper (Chair), Cr John Burley, Cr Robert Cullen (alternate delegate), Dr Terry De Lacy, Kieran Somerville, John Redmayne, Robyn Lucienne, Maree Brennan, Peter Kelly, Judy Faulks.

Online: Cr Maggie May, Jason Hague.

Guest Presenters: Alex Polson (Source), Patrick Denvir (100% Renewables).

1. Apologies

Dr Arthur Webb, Chris Hoare, Graham Kennett.

2. Confirmation of Minutes

The Working Group agreed to confirm the minutes of the Climate Change Working Group meeting held on 6 March 2023. MOVED: Robyn Lucienne SECONDED: Cr John Burley

3. Correspondence

3.1 Inwards

3.1.1 Correspondence from Kyogle Environment Group (29/3/23). Feedback from KEG very useful and a response will be provided to them thanking them for their correspondence. Resource Guide will be updated following this meeting and the May 2023 version will be put up on Council's website. Working Group agreed that a regular space in the Community Newsletter would be very beneficial to get regular information out to the community rather than the current *ad hoc* approach. Could also explore other online forums.

Actions:
(1) Provide a response to the Kyogle Environment Group and thank them for their feedback.
(2) Working Group will aim to provide regular articles in the Community Newsletter (and other online forums as appropriate).

3.2 Outwards

3.2.1 Delegate's Report from CCWG to April 2023 Council meeting - CCWG November 2022 minutes were provided with the Delegate's report to the Council meeting. The two motions put to Council were carried.

That Council:

1. Receives and notes the report, *Delegates Repot – Cr Maggie May: Climate Change Working Group*; and

2. Work with Local Land Services (LLS) and NSW Dept of Primary Industries (DPI) to host a Carbon Forum in Kyogle LGA in 2023 and seek further information from LLS to determine whether it is feasible for LLS to run a carbon project in Kyogle.

On-farm Carbon Regional Forum was held in Kyogle on 27/4/23. There is a need to again raise the issue with LLS regarding the feasibility of setting up a carbon project within Kyogle LGA. Perhaps two projects are needed – one within the upper Richmond River catchment and a second within the upper Clarence River catchment. Discussed further under Item 6.

4. Presentation by Alex Polson from Source - Hydropanels Introduction

Website link: https://www.source.co/ Presentation will be distributed and link will be included in the Resource Guide.

Alex Polson (Source Global) provided an overview of Source-manufactured Hydropanels as a resilient drinking water solution. Hydropanels are an advanced water technology that requires no piping, external source of water or power infrastructure and utilises solar technology to provide clean, renewable mineralized drinking water from ambient air moisture in any environment, completely off-grid. The panels can be placed on a roof or on the ground. They are considerably cheaper to install on the ground than on the roof. There are many communities around the globe that lack access to drinking water at home (60%). Contamination (e.g. microplastics, PFAS, lead, *etc*) compromise water safety. There are reliability issues with water supplies when impacted on by drought and natural disasters. There are cost and waste issues when plastic bottled water is used as an alternative. Refer to presentation for case studies of using Hydropanels including to provide drinking water in remote Indigenous communities, and to schools in regional and remote areas where a reliable source of clean, safe drinking water was not available, especially in times of drought, and they were not connected to a town water supply. A Hydropanel provides 300L/month per panel and these panels last for around 20 years. No real reliability issues and little required in the way of maintenance (yearly cleaning of filter and 5 yearly change over of mineral cartridge). Hydropanels can be remotely monitored. Ideal working conditions – full sunlight, need to face NE to access sun in this area. Technology cheaper than bottled water. Is for human consumption (not stock).

Hydropanels (Source technology) is suitable for a variety of applications, including:

1. Households, farms, or businesses where there is currently no water service (or unreliable water supply) – including schools;
2. Communities where drinking water does not meet community expectations around taste, aesthetics and trust;
3. Resilient drinking water supply in case of natural disaster such as droughts, water quality events, and bushfires to guarantee minimum supply; and
4. Reduction of plastic waste in the community (from bottle water use).

There is potential for Source to partner with Council to address areas where communities have an unreliable water supply. Possibility to set up a demonstration site within the LGA. It was noted that in the Kyogle LGA there are 5 communities that do not have reticulated water but currently have a fairly reliable rainfall but, due to climate change, this is becoming less reliable. Flooding also impacts on water quality (elevated turbidity) as does other natural disaster events (drought, fires).

Impacts of climate change and its risks on water supply:

High risk:

- An average increase in temperatures will mean an increased demand for potable water and increased water quality monitoring.
- A projected increase in temperature may cause increased algal blooms, effecting water quality and treatment.

- The projected rainfall patterns could impact on river flows and result in a reduction of secure yield water supply sources within the LGA.

Medium risk:

- Increased turbidity and poor source water quality following intense rainfall.
- Lack of rainfall could lead to an increased demand on town water supply in un-serviced villages (e.g.Tabulam).

The Kyogle Council drought management plan identified:

- Emergency bore water access in Kyogle would cost $2,800 per day
- Emergency water carting from Casino would cost $6,800 per day
- Emergency water carting from Toonumbar Dam would cost $9,600 per day.

How much does it cost? There are 2 models:

1. If Source set up and provide Hydropanels: 10-20c/L to deliver and install by a local business which equates to approximately $12,000 per home.
2. Through a Water Purchase Agreement - $0 upfront or annually (maintenance). Monthly water bill @ fixed volume pricing. Simple to add homes and communities for future growth.

5. Update on Climate Change Adaptation Initiatives Council is funding using grants

Cr Maggie May provided the following update on climate change adaptation initiatives Council is funding using grants:

- Shade structures
- Air conditioning in community halls – the Kyogle Memorial Hall is the only hall owned and operated by Council and it does have a 30kW solar system on the roof. All other halls in the LGA are owned/managed by other groups.
- Indoor sports centre (construction yet to commence)
- Lighting on the sports fields to allow for night sports – As of January this year (which is when Council's new electricity contracts started) all Council's power (including sports fields) is now 100% green, whether it is suppled by onsite solar of supplied by green grid power.
- EV charging stations
- Water supplies – Tabulam and Mallanganee
- Pre-feasibility study for the microgrid

Kyogle Council will meet the target set – "that 100% of Council's electricity demand is sourced from renewables by 2030" - by 2026 (4 years ahead of schedule). Working Group agreed that there is a need to highlight the things that are being achieved.

6. On-farm Carbon Regional Forum, Kyogle

The On-farm Carbon Regional Forum was held in Kyogle on Thursday, 27 April 2023 (event flyer previously distributed). The one day workshop provided an opportunity for landholders to learn about practical on-farm carbon management and carbon markets from NSW DPI scientists, carbon developers and local farmers that have successfully adapted their businesses.

This type of Forum that was held in Kyogle was the first of its kind in NSW. Feedback on the Forum from the four members of the Working Group who attended the day:

- Forum and speakers were very well organised and the presentations were well delivered (i.e. very professional). There was a great opportunity to ask questions. The presentations were very informative and thought provoking. Overall - got a lot out of the day.
- Was great to have this event. Shows that Council has influenced DPI/LLS's decision to have this event here in Kyogle. Very impressed with DPI's and SCU's presentations in particular. Would be great if this Forum can then follow on with a specific carbon project for Kyogle i.e. trials (measuring soil carbon, carbon sequestration) in a high rainfall area with our basalt soils, and smaller-sized holdings, that can be used for field days and awareness raising activities aimed at landholders/farmers.
- On speaking further with some of the speakers on the day – they have so much more information that could be shared with farmers/landholders. Would like to see further events/days like this one organised for our region – including more emphasis on controlling methane emissions from cattle and rotational grazing (which wasn't really addressed at this Forum).
- Overall the event was good to share information that stimulated thought in the farming community. Would like to see something that delves more into what it all means "contract-wise". Great information and great questions from the audience.

General comments:

- Involve Norco in any future events.
- There is a need to involve young farmers.
- Could target something at Primex which is a great regional event.
- The event was not very well advertised.

Next step (as advised by DPI at the Forum):

- DPI will work with a selected number of landholders in the area (~15) to do something more intensive.

Actions:

(1) Kieran Somerville (with input from DPI and assistance from Kyogle Council) to provide a summary of the On-Farm Carbon Regional Forum for the Community Newsletter (and perhaps the Rural Report).

(2) Kieran Somerville (with support from Terry De Lacy and Robyn Lucienne) to write to DPI (cc LLS North Coast, Local Member, Minister) to provide thanks, feedback and to acknowledge the success of the recent On-farm Carbon Regional Forum in Kyogle.

(3) Kieran Somerville (with support from Terry De Lacy and Robyn Lucienne) to write to CEO of LLS North Coast to again raise the issue regarding the feasibility of setting up a carbon project (involving trials) within the Kyogle LGA and to consider two project areas – one within the upper Richmond River catchment and a second within the upper Clarence River catchment.

7. Improving and Protecting Riparian Zones on Private Rural Lands

John Redmayne noted that now that Scott Antcliff has left Kyogle Council there is an opportunity for things he was working on, including meetings and discussions with members of the Agriculture Focus Group, to be given to an independent Agricultural Advisor for consultations with Council, on ways to improve and protect riparian zones on private rural lands. This could be carried out under the *Kyogle Community Strategic Plan* (2022 to 2032) - "To have healthy rivers and waterways, including the Richmond and Clarence River catchments" (page 16), and under the *Strategic Planning Projects Tracker* (updated Oct/Nov 2022) - D2.1, D2.2, D2.3, D2.4, and D3.3. Would require funding for a person to be involved with this type of project.

Kyogle Council has been involved in many riparian zone replanting and restoration works along Fawcetts Creek and within Kyogle Recreation Reserve, which Council manages, from the tennis courts to the area adjacent to the Golf Club – involving Kyogle Landcare.

In the near future, could ongoing field days, walk and talks, similar to ones he has attended recently throughout the LGA, be held to encourage as many private landholders as possible to attend, and see what can be achieved on their riparian areas? Much information and research has now been gathered by various organisations regarding species to plant and the methods of planting. Fencing of riparian zones should also be included. Council's role into the future would be to raise awareness and demonstrate what needs to happen to restore, rehabilitate and manage riparian areas on private rural lands. The events could address: fencing (electric), removing stock although using rotational grazing, weed control, planting, *etc*. What can be done in this space?

Discussion points:

- There are examples throughout the LGA (upper Richmond River catchment) of bank protection works (e.g. around Old Grevillea) and instream/bank works (e.g. within Roseberry Creek sub catchment) that have involved SCS/LLS/Landcare. There are also examples of Landscape Rehydration activities (e.g. within Roseberry Creek sub catchment – as part of a project organised through Gavin Tinning, Sustainable Agriculture Projects Officer, BRRVLN). There are also examples of 'leaky weirs' on private properties that hold water back, keeping moisture in the landscape.
- There is a need to target landholders in rural areas specifically. Not all rural landholders are part of the Landcare Network or attend Landcare meetings so need to take that into consideration when planning and delivering a program aimed at improving and protecting riparian zones on private rural lands.
- Peter Kelly advised that CSIRO are undertaking a comprehensive study throughout the 2022-flood impacted catchment areas, collecting very useful information which they will report on. This study is a significant piece of work and looks at the bigger picture. CSIRO will make recommendations regarding resilience activities. Funding will come from this. It is recognised that there is a need for more emphasis and more spending before natural disasters (as opposed to being reactionary and spending much more after a natural disaster).
- Council needs to implement succession plans for members of the Working Group to access and to continue work developed by members leaving the group in order to retain 'corporate knowledge'.
- Concerns were raised regarding weed management and whose responsibility it is and whether Council should be doing more. Rous County Council are the Weed Authority for Kyogle LGA but their focus is on high priority weeds. Other weeds that have spread substantially along the riparian zone (e.g. cats claw creeper, madeira vine, *etc*) are classified as 'asset protection weeds'. Every landowner and land manager (including Council) has a responsibility for weed management.
- Judy Faulks advised that LLS, through their Riverbank Rehabilitation Project, have developed methods to prioritise reaches and as part of Phase 2 of this project, commencing in July 2023, landholders who have been impacted by the 2022 floods can register with LLS who will then undertake a desktop impact assessment based on the photos and information provided by the landholder. LLS will also provide advice on rehabilitation and on the design of any instream works that may be required and also what approvals are required. Kyogle Council is part of a reference group established by LLS and take part in online meetings. Under Phase 2 of this project, there is scope for Council to work with LLS and involve Landcare to organise field days in upper Richmond and upper Clarence catchments to highlight what could be done on-site to address erosion impacts caused by flooding as well as what is best practice river management. LLS are also setting up a demonstration site within each flood-impacted catchment that will show

what can be done to address erosion along a river reach. Information directed at landholders will be (and has been in the past) circulated as it becomes available from LLS. Also, from an environmental program perspective, Council is very aware of the need for improved riparian management and are determining how best to deliver on the specific actions from the *Kyogle Community Strategic Plan* and *Local Strategic Planning Statement* and will provide further updates.

8. Council's resolution to seek proposals on current and projected climate change impacts on Kyogle LGA and develop a climate change adaptation risk assessment and action plan to strengthen community resilience

Judy Faulks provided an update on the 'Local Government Climate Change Toolkit'. The NSW Office of Energy and Climate Change have advised that the Toolkit is "in an internal review phase and is likely to require more work so that it can be published via an online tool." They will provide further updates once they make progress on this.

Working Group to continue to wait for toolkit and to be kept updated on its progress.

9. Presentation by Patrick Denvir, 100% Renewables – Microgrid solutions for Kyogle LGA – Consultation outcomes and possible next steps for Kyogle (11:15 am)

'Kyogle Council – Microgrid Prefeasibility Assessment – Draft Report' (April 2023) by 100% Renewables provided. Presentation will also be circulated with the minutes.

Patrick Denvir (100% Renewables) recapped on what has been achieved to date as part of the 'Microgrid Prefeasibility Assessment' for the Kyogle LGA. Kyogle Council and the CCWG is interested in exploring options for microgrid development/s in the Kyogle LGA. The draft report explores what a microgrid system is and their applications; potential funding for microgrid projects in Australia; what the local needs and drivers are; and the key aspects and lessons from selected microgrid projects taking place to help inform Kyogle's next decisions and steps.

Funding for microgrid projects in Australia: Regional Australia Microgrid Pilots Program, Regional and Remote Communities Reliability Fund, Community Batteries for Household solar program; and ARENA (Australian Renewable Energy Agency).

Energy vulnerabilities and other drivers in Kyogle include: Limited high voltage transmission and distribution networks; some communities are having grid reliability issues with 'brown outs' being fairly common; no plans to develop grid-scale batteries to secure reliable supply by Essential Energy; and no communities or customers currently earmarked for development of a Stand Alone Power System (SAPS).

Key points from consultation with three community microgrid projects:

Indigo Power – Yackandandah & Upper Murray –

- They have got a number of projects off the ground.
- They recommend that assets should be owned and run by the community as having ownership of physical assets changes the mindset of the community, and more and more people reach out and get involved when this happens. Better outcomes if the community owns and runs the asset.
- In any application for grant assistance, make local resilience the underpinning basis, not renewables.
- Having local Council support is important but if the local Council is the entity who leads and is the grant applicant then control of the project is taken out of the hands of a local community group, who can potentially be more agile in delivering a project.
- A local group as the applicant can and should rally local support (e.g. letters of support from Council, local politicians, the network provider, *etc*).

- An energy retailer is an essential part of any project delivery. Indigo could support other projects as a retailer (in the Northern part of NSW, Enova could have fulfilled this role).
- Project planning and milestone adjustment as an ongoing task is important. Developing processes and procedures, and taking learnings from other projects is important. Ongoing project planning and staging is essential, and making sure the 'little' things are important and get done is essential – plug all gaps.
- Having the right balance of resources and people with the right mix of skills is very important (i.e. ideas people, people who know and can engage with the community and wider networks, and people who can get things done). The local group's commitment is very important.
- Community engagement early and often is key; not everyone will be on board or interested at first so keeping the engagement going will see benefits over time and more participation.
- Understanding local community dynamics is important.

Ergon Energy – Clairview and Stanage Bay –

- Are leading different elements of their projects at two remote communities that have reliability issues.
- Know what your objectives are, what problem's you are trying to solve.
- Know what technologies / technical solutions can deliver and whether they will deliver the outcomes you want ideally ahead of detailed community consultation. They will do community consultations when they know what the technology solutions will be.
- Be cautious about getting into solutions that involve changing the electricity rules as this will get complicated.
- Engage once the technical solutions are known as this provides greater clarity and leads to better co-design.
- Take human behaviour and community characteristics into account when designing or optimising solutions. Don't assume everyone in the community will behave in a way that the design solution recognises.

Southcoast μ-grid Reliability Feasibility (SuRF) –

- There are a number of proponents involved in this project. Technical studies are being undertaken to understand what the solutions might be so they have only had limited consultations so far (led by ANU). Community consultation to inform design is essential and consultations will increase when more known about what solutions may work.
- A well-resources and organised community group can drive and help towards achieving local community benefits.
- Emergency response and local resilience appear to be central to community needs.
- As this is a research-led project with ANU taking the lead, the outcome may not be a 'tender-ready' project. Further work and fund raising would be required.
- If rule changes needed, this can mean significant delays.

Discussion points:

- In Kyogle - would need to look into the network failures / grid reliability issues within the LGA (in a feasibility study) – particularly Woodenbong which is at the end of the line/edge of grid, and possibly Urbenville working in with Tenterfield SC. Are there any grid reliability issues in the smaller communities during extreme weather/natural disaster events? Would Bonalbo (or elsewhere) be a candidate for community batteries?
- Need to know if Essential Energy has identified Urbenville as a village where they want to address reliability issues.
- Need to discuss further with Essential Energy the history of network failures to help identify the most appropriate area for a microgrid. Possible places: Tabulam, Urbenville, Bonalbo, Woodenbong and Kyogle.
- Resilience would underpin the feasibility study. Cost of living as a factor of resilience is a consideration now.
- Need to have clear objectives, and an understanding of what you want to achieve and what solutions would meet those core objectives (i.e. community core objectives).

- Need to understand the communities you are working within and the seasonality of any industry in that community; and which community would be invested in addressing the grid issues through a microgrid. Are the people within these communities wanting to own and lead a microgrid project as local ownership and leadership have been identified as being extremely important?
- Tabulam example – the blueberry industry can have up to 1,000 workers onsite (seasonal though). There wasn't enough power at Tabulam so a major portion of this enterprise was moved back to Lismore leaving only part of the enterprise at Tabulam. Would have been an ideal place for a Microgrid before they moved. It was acknowledged that you can't base a project on, or submit an application to serve a private business enterprise but it would have benefited the whole community. There are other big industries within the Kyogle LGA (e.g. Mara Seeds, piggeries).
- Further exploratory discussions with Essential Energy would be an integral part of moving forward and also having the community onboard. Collaboration with Essential Energy to develop local solutions is required initially and throughout any feasibility study/project. Contact details of who to consult with in Essential Energy will be included in the final report. Jason Hague will help drive the microgrid options for various townships (or the region) and will pursue further exploratory discussions with Essential Energy on Microgrid possibilities.
- In the future Local Growth Management Strategy, Council can provide strategic direction for infrastructure provision to include electricity provision, including options for microgrid possibilities. This could help to inform population capacity of the townships, through what energy infrastructure can be provided that would help sustain and make towns more resilient.
- There are three avenues in the prefeasibility study that Council should apply for funding for a Feasibility Study, which would include the stakeholder engagement. Council will need to further explore these funding opportunities.
- Recommend to Council to incorporate stakeholder engagement in the process as the next step. The next step should also include stakeholder analysis. Both stakeholder analysis and stakeholder engagement could be done by Council as part of an engagement process. Maggie May to investigate if the stakeholder analysis and engagement could piggy back off other consultations that are occurring. There will be different responses that are received from the suggested communities during the engagement process.
- Receive draft report (with recommendations for next steps for Kyogle once finalised). Endorse draft *Microgrid Prefeasibility Assessment* by 100% Renewables, based on the above discussion of possible next steps/recommendations, including the recommendation of stakeholder engagement.

Actions:

(1) Working Group to provide any further feedback on the draft report and on any further recommendations for what the next steps for Kyogle might be. 100% Renewables will incorporate any feedback and recommendations into the draft which will be referred to Council as the endorsed draft *Microgrid Prefeasibility Assessment* report.

(2) Maggie May to investigate if the Microgrid stakeholder analysis and engagement could piggy back off other consultations that are occurring.

(3) Jason Hague to help drive the microgrid options for various townships (or the region) and will pursue further exploratory discussions with Essential Energy on Microgrid possibilities. He will also help to drive the stakeholder analysis and engagement, and further explore funding opportunities.

10. Action Plan – Status (copy provided)

Full listing of actions since Working Group commenced – available on Google Drive.
Current Action Plan provided.

5.1.1 30/5/22 – Will be included in Delegates report – what are the barriers to changing to alternative fuel, hybrid and EVs?

4.1 26/9/22 – Close out action as we have moved on from this. Will look at trials *etc* as discussed at this meeting. Include riparian management.

11. Climate Change Resource Guide
Working Group members to continue to forward any additional documents for inclusion in the Climate Change Resource Guide. Quarterly updates will be carried out. Robyn has provided an updated guide which will update the copy on the website.

12. Agenda Items for Next Meeting
Review of the CCWG – findings of the survey being conducted.
Dr Webb – Presentation – topic tbc

13. Close of Meeting: 12.25 pm

14. Next Meeting
The next meeting will be held on Monday, 17 July 2023 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.
[July meeting cancelled]

Invitations for the following 2023 meeting dates to be sent out: 18 September, 20 November.

The minutes of this meeting were confirmed at the Climate Change Working Group Meeting held on 18 September 2023.

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TOM COOPER, CHAIRPERSON