

Minutes

Gippsland Renewable Energy Zone™ project

Community Advisory Group (GCAG)

Meeting #2

Date: Thursday 9 February 2023

Time: 1:00pm – 3:00pm

Location: Nakunbalook Environmental and Cultural Education Centre, Montgomery Street Sale, VIC 3850

Attendees:	<ul style="list-style-type: none"> • Wendy Bezzina (Acting Chairperson) (WB) • Lorraine Bull (LB) • Ian Croke (IC) • Peter Mooney (PM) • Colin Young (CY) 	<ul style="list-style-type: none"> • Dianne Best (DB) • Ian Bye (IB) • Hamilton Gerrand (HG) • John Petrakos (JP) 	<ul style="list-style-type: none"> • Kirra Bott (KB) • Tony Cantwell (TC) • Ian Hill (IH) • Graeme Stuckey (GS)
GREZ project team/AusNet attendees	<ul style="list-style-type: none"> • Lily Habib (LH) • Kellie Nichols (KN) • Chris Grinter (CG) 	<ul style="list-style-type: none"> • Renee Kurowski (RK) • Brett Millsom (BM) 	<ul style="list-style-type: none"> • Marisa Feher (MF) • Gary Stevens (secretariat) (GS)
Apologies:	<ul style="list-style-type: none"> • Mary Aldred (Chairperson) (MA) 	<ul style="list-style-type: none"> • Mathias Wood (MW) 	<ul style="list-style-type: none"> • Christine Shanahan

Item	Discussion
1	<p>Welcome, Acknowledgement of Country, Housekeeping/Administration</p> <p>BM welcomed attendees to the meeting and acknowledged the Traditional Owners of the land on which the meeting was taking place and on which the Gippsland Renewable Energy Zone™ project (G-REZ™) is proposed, the Gunaikurnai people.</p> <p>BM explained that Mary Aldred, Chairperson, is an apology for the meeting so it will be chaired by Wendy Bezzina.</p> <p>WB called for conflicts of interest prior to the meeting commencing. No conflicts of interest were received.</p>
2	<p>Action items and questions on notice from previous meeting</p> <p>GS gave a progress update on action items and questions on notice from the previous meeting.</p>
3	<p>Offshore Wind Implementation Statement 1</p> <p>LH gave an update following the release of the Victorian Government's <i>Offshore Wind Implementation Statement 1</i>.</p>
4	<p>Presentation on overhead and underground infrastructure</p>

Chris Grinter, AusNet Services Engineering Manager gave a presentation providing greater detail regarding the differences between overhead and underground infrastructure for a 500kV, double circuit transmission line such as the G-REZ project. Topics were as follows:

- **Dedicated connection and shared network transmission lines** – an overview of the differences between dedicated connection lines (providing a service to a single energy developer) and shared network lines (providing services to multiple energy developers). This included examples of each type of transmission.
- **500kV transmission (underground and overhead infrastructure)** – an overview of the impacts, benefits, challenges and cost differences of overhead and underground transmission for a 500kV transmission line.
- **HVAC and HVDC transmission** – an overview of the differences between HVAC (the transmission network in Victoria) and HVDC
- **How is the G-REZ project different to other projects?** – a comparison between G-REZ and other planned transmission projects underway in Gippsland, Victoria and NSW, showing the type of infrastructure, capacity, easement sizes for underground cables and the reasons for the project.
- **What is involved to underground transmission?** – the construction process of undergrounding transmission including excavation, cable installation, layers needed and above ground infrastructure, as well as time taken to join cables.
- **What does underground transmission look like?** – infographics showing a cross-sectional view of cable trenches and a top view of the cable joint pits. A key challenge for cable jointing is that the labour would have to be imported from overseas as there are no skilled jointers in Australia for a 500kV underground transmission line.
- **Examples of underground transmission construction and easements** – photographic examples of transition station construction, cable trench construction and a current 220kV HVAC cable easement.
- **Land uses on AusNet transmission easements** – an overview of what is and is not permitted by AusNet on easements for overhead and underground 500kV double circuit transmission.
- **Underground transmission infrastructure around the world** – examples of major underground (400-500kV HAC) projects dating back to 1997 from around the world. These are mostly short sections in metropolitan areas.

Discussion after the presentation centred around several key points which are summarised below:

- Members to have access to the presentation slides.
- How much the impost of a potential underground cable failure is weighing on AusNet's decision making about overhead/underground transmission. This is a major consideration, because if one cable fails, the entire circuit could be offline for repairs (for 40+ days) which could put the Victorian economy at risk.
- Underground transmission being better protected from severe weather events such as storms, as well as delays in the time it takes to repair damage when towers collapse. However, the probability of cable joint failure is higher than storm damage to transmission towers.
- Whether the difficulty in finding specialised workers to repair cable joints would be the same for overhead transmission. There are lineworkers specialising in overhead transmission located in Australia, however there are no workers skilled in joining or repairing cable joints for underground 220kV or 500kV lines and they would have to be sourced from overseas. There are 10 companies globally that manufacture underground 500kV cables, and due to warranty clauses will need to install and complete any repairs – removing the utilisation of a local workforce.
- Comparison of costs for overhead vs underground. AusNet is still investigating. Examples of undergrounding of other 500kV HVAC projects, equate to around \$50 million per kilometre but this depends on the topography and geology of the land.
- Responsibility for access tracks – they are required for construction but once construction is finished, landowners would have the choice to maintain or remove the access tracks.

- A desire by the community to avoid having multiple transmission lines of smaller capacity, which would be avoided by G-REZ maximising transmission capacity. VicGrid is looking at a bigger holistic perspective.
- Whether seismic activity in the region is a factor in planning for underground transmission. While the Latrobe region is seismically active, the geological conditions are stable, meaning less impacts/damage by earthquakes.
- The ability for underground cables to better avoid culturally or environmentally significant sites by being bent slightly on shorter lengths.
- The impacts and sizes of monopoles compared to lattice towers. A lattice tower would have more steel but less concrete for foundations than a monopole. AusNet investigating the possibility of monopoles for 500kV.
- The need for AusNet to get access to land along the project route in order to determine soil characteristics, which will inform the design of transmission infrastructure (for example heat transfer in underground cables, or for tower footing construction for overhead). While some data is available from desktop studies or previous work done in the region, specific assessments are needed on soil properties along the project investigation area.
- Land use restrictions on underground easements, as well as the ability to crop within and around the lattice towers. Also maintenance of fuel loads around the base of towers.
- Dangers of underground cables overheating, which are mitigated by optical fibres measuring temperatures.

5 Route update

MF gave an update on the G-REZ route, environmental referrals and ecology surveys.

6 Line drive update

GS gave an update on the project route line drive for GCAG members which will be on Thursday 16 February 2023.

7 Open discussion

WB thanked the AusNet team and CG for his presentation. She then opened discussion for questions members would like addressed at future meetings.
