14 February 2024

The Chief Executive Officer
Toowoomba Regional Council
PO Box 3021
Toowoomba QLD 4350

Dear Sir/Madam,

Response to Public Submissions
Your Ref: MCUI/2023/991
Campbells Road, 324 Punchs Creek Road & 76 The Turkey Road, Punchs Creek QLD 4357
Lot 39 N25188, Lot 1 RP22800, EMT P SP162209, Lot 2 RP22800, Lot 2 RP60015, Lot 11 ML72, Lot 144 ML72, EMT Q SP162210, Lot 145 ML72, Lot 149 ML412 and EMT R SP162210

This letter has been prepared to provide a response to the public submissions received during the Public Notification period (15 January to 5 February 2024) for the Punchs Creek Renewable Energy project.

A total of six (6) properly made submissions were received by Toowoomba Regional Council, with three (3) submissions in support of the proposed development and three (3) submissions objecting to the proposed development.

The following Table 1 addresses the various themes raised in the submissions, including:

- Agricultural land
- Neighbouring property values
- Financial benefit to Millmerran business owners and local communities
- Road access route, safety and upgrades
- Visual impacts and landscaping
- Fire hazard and risk
- Decommissioning and waste management
- Severe weather events and insurance
- Consultation with neighbours and community/public information
- Pollution risks to humans, animals, insects, birds, etc.
- Dust and noise during construction
- Construction workers
- Limited medical and emergency representation locally

We acknowledge the three submissions in support of the proposed development and their reasons for support provide responses to some items raised in the three objecting submissions, an alternate view highlighting the benefits and opportunities a project of this nature may provide to the local community and economy.

Table 1 Responses to public submissions

Submission Theme/Topic	Response
Agricultural land use	Farmers for Climate Action recently conducted a survey[1] (more than 700 responses from the agricultural sector) which indicated that renewable projects are near the bottom of the list of concerns held by regional Australians and more than 50% of respondents believe the single greatest threat to farming is climate change. According to the survey, those polled said the biggest threats to farming in their local regions were "increased fires and floods driven by climate change" (39.2%), "commercial conduct by big supermarket chains" (18.7%) and "increasing cost of insurance and fertiliser and other inputs" (17.5%). Just 5.3% nominated the construction of transmission lines on farmland and 7.6% said renewable energy projects. Conversely, the poll found[2] that regional people believed tourism (28.9%) to be the biggest opportunity for their community in the next 20 years, followed by renewable energy (21.6%) and healthcare employment (15.8%). Farmers from Farmers for Climate Action have shared their views on the benefits of hosting renewable energy projects and reject claims that clean energy is wrecking the agriculture industry. This includes farmers with sheep on neighbouring solar farms, who are reporting that grazing under those solar panels has led to better quality and more wool which they believe is because there is more nutrition given the panels create shade in summer and provide a wind break in winter, noting "...they produce more wool on the same land before the panels were there". Punchs Creek Renewable Energy has the potential to become an Agrisolar site. 'AgriSolar' incorporates agriculture (e.g. sheep grazing) that is co-located within the solar/battery generating infrastructure. The favoured sheep breeds to co-locate with renewable energy infrastructure are dorper and merino sheep, which have successfully proven to graze within the solar and energy storage infrastructure. Sheep grazing can contribute to the agricultural sustainability of the host land. The incorporation of sheep grazing can expand the sheep grazing industry in the region, which will result in direct and indirect economic benefits through the grazing itself, farm jobs and growth in the production of sheep meat or wool. The sheep grazing within the solar and energy storage infrastructure also benefit from the solar power station activity. Existing projects of this nature have seen:

[1] https://reneweconomy.com.au/farmers-says-climate-change-is-biggest-threat-renewables-the-best-solution/

[2] https://reneweconomy.com.au/anti-renewables-rally-inspires-counter-action-as-farmers-share-solar-and-wind-benefits-debunk-myths/

Submission Theme/Topic	Response
	• The sheep growth rate and fertility should be higher under the solar panels compared to the direct sunlight, due to the abundant shade and lower temperatures • The shading effect of solar panels creates a micro-climate under the panels with differences in air temperature, humidity, wind speed and soil moisture. This leads to higher water efficiency and soil moisture retention which will help with pasture production for the sheep • Increased sheep stock and health will ensure a better product for farmers, resulting in lower mortality rates and increased profit potential. The benefits will follow on through to butchers and customers who can sell and experience quality meat; and • Controlled grazing of the sheep will reduce the risk of fire and reduce the cost of slashing, which in turn lowers the operational cost of the project and supports the provision of low-cost electricity supply. Controlled grazing of the sheep will reduce the risk of fire and reduce the cost of slashing, which in turn lowers the operational cost of the project and supports the provision of low-cost electricity supply. More and more solar farms are introducing sheep grazing to their sites, with examples in Queensland, NSW, Tasmania and Victoria to date. The image below shows Acen Australia's New England Solar Farm in NSW, which has completed the first 400MW stage (full capacity of 720MW planned) and now hosts more than 2,000 merino sheep (expected to eventually triple). In Queensland sheep grazing has been introduced to solar farms in Emerald, Collinsville and is proposed for sites in Callide and Western Downs, to name a few known sites.  *New England Solar Farm, Acen Australia project in NSW*

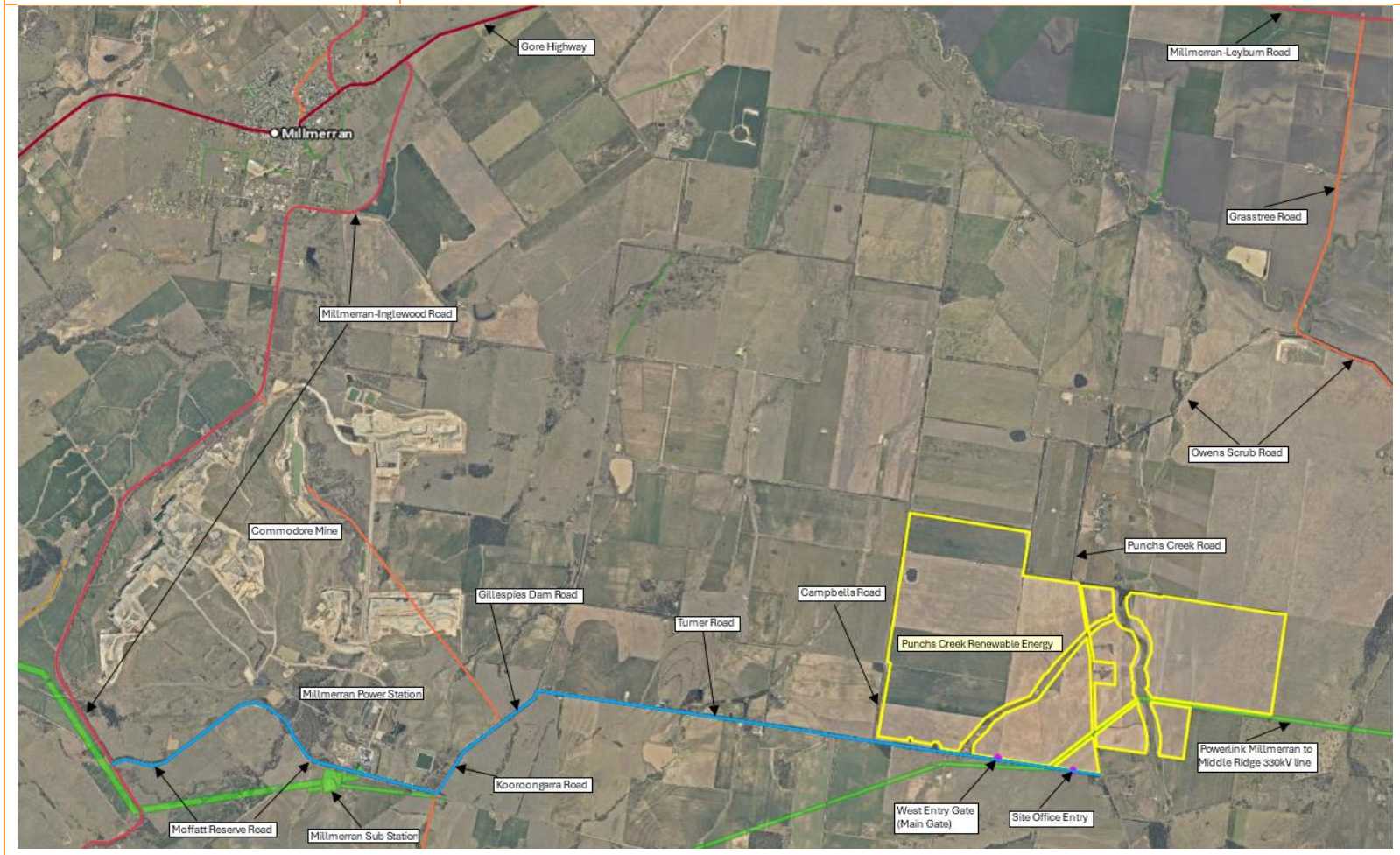
Submission Theme/Topic	Response
	This topic was covered in planning application materials including Section 5.5 and Section 7.1 of the Planning Report and addressed in the Planning Scheme Codes Responses to the Rural Zone Code and Agricultural Land Overlay Code. No further information was requested by Toowoomba Regional Council in the Information Request dated 21 April 2023 or any subsequent correspondence, thus it has been considered as adequately addressed for planning purposes.
Neighbouring property values	This topic is not considered to be a planning matter, however it is acknowledged this is a matter of interest, thus a response has been provided. Some neighbours have questioned what impacts a development of renewable projects will have on the value of their neighbouring property. Skylab is cognisant that for most households, their home/property is their primary asset, which in turn means that any factor which may affect its value is significant and important to understand. Accordingly, we take concerns regarding property values very seriously. Skylab is not aware of any reliable research or evidence which establishes a correlation between declining real estate values and proximity to renewable infrastructure. The most relevant study carried out in Australia was commissioned by the NSW Office of Environment and Heritage and published by planning consultancy Urbis in July 2016[3]. This report comprised an analysis of available sales data and a 'literature review' of Australian and international studies. An example of the literature review includes a 2009 report prepared for the NSW Valuer General's office. Its conclusions are most easily understood when divided into 'agricultural' and 'lifestyle' land. The report recognises that property values are influenced by a range of factors and it is therefore difficult to determine if solar farms (or other similar infrastructure) can cause land values on neighbouring agriculture properties to increase or decrease. Another recent study has been completed in the United States, which investigated the impact of wind farms on nearby property values and found that any negative impact on real estate values is temporary at worst[4]. The lack of evidence showing declining land values around proposed and established renewable energy projects is, in itself, the primary evidence available to conclude land values do not appear to decrease as a result of renewable energy developments. In summary, it is not expected that Punchs Creek Renewable Energy would affect the values of neighbouring agricultural properties.

[3] https://epuron.com.au/documents/444/review_of_the_impact_of_wind_farms_on_property_values_urbis_2016_07_21.pdf

[4] https://reneweconomy.com.au/landmark-study-finds-negative-impact-of-wind-farms-on-real-estate-values-is-temporary-at-worst/

Submission Theme/Topic	Response
Financial benefit to Millmerran business owners and local community	This topic is not strictly a planning matter, however it is acknowledged this is a matter of interest and is an area where the Applicant believes a positive contribution can be realised by the proposed project, thus a response has been provided. Each project benefits the local community by creating employment, utilising local services and by increasing the long-term assets and investments that generate opportunities for decades to come. The Punchs Creek Renewable Energy project will stimulate the local economy through engagement and use of local services, accommodation, food/meals, procurement of local supplies, etc., The project is expected to employ approximately 340 people during the Stage 1 construction phase (with the aim to maximise opportunities for locals) and up to 10 local employees in full-time positions during operations, as well as ongoing indirect employment (e.g. ground, fencing and building maintenance, engineering, Control Centre for 24hr monitoring, project management, vegetation control, calibration services, cleaning services, etc.). The project will have a local participation plan which will provide opportunities for local contractors to submit tenders and local jobseekers to seek employment by hosting a series of 'Contractor Information Sessions' in the local area and online, prior to any construction commencing. In addition, the project will establish a community fund in consultation with the local business community and council, which is designed to support community group projects. Analysis shows approximately 30% of the capital deployed for these types of projects goes into the accounts of local trades, labourers, suppliers and services. Punchs Creek Renewable Energy is expected to involve a capital investment of approximately $1.2B. Given the local sheep grazing land use in proximity to the development land, there is strong consideration to co-locate a sheep grazing activity (via agistment or other arrangement) within the development to continue the agricultural use of the project lands and manage the ground cover. Sheep grazing can contribute to the agricultural sustainability of the host land. The incorporation of sheep grazing can expand the sheep grazing industry in the region, which will result in direct and indirect economic benefits through the grazing itself, farm jobs and growth in the production of sheep meat or wool.
Road access route, safety and upgrades	Punchs Creek Renewable Energy is located approximately 64km south-west of Toowoomba and 13km south-east of Millmerran. The project is proposed to have an anticipated combined capacity across both solar and battery of 650MW (for Stage 1) or more. The project's main delivery and access point will be established off Turner Road, via the Gore Highway and Millmerran-Inglewood Road.

Submission Theme/Topic	Response
	In early planning, multiple access routes were considered and Skylab's consultant conducted preliminary assessments of those transport routes. Through discussions with Council, it was determined the proposed project should focus on the preferred access route as shown in the figure below – blue transport route via Millmerran-Inglewood Road and Gore Highway.



Proposed access route shown in 'blue', via Millmerran-Inglewood Road and Gore Highway, as determined by Toowoomba Regional Council

Submission Theme/Topic	Response
Road access route, safety and upgrades (cont'd)	Skylab's consultants have engaged with Toowoomba Regional Council (TRC) and the Queensland Department of Transport and Main Roads (TMR) to determine which local roads and/or intersections may require upgrades to accommodate the transport of materials to site. The project will seek to upgrade roads or intersections utilised for construction purposes, in consultation with Council and TMR. At this stage it is expected Turner Road will require upgrades prior to commencement of construction. Stage 1 construction is expected to generate approximately 31 vehicle movements during the morning and evening peak hours during the peak construction period, which would reduce to 19 vehicle movements over the typical construction period. Traffic generation during Stage 2 is expected to be similar to Stage 1 and the stages are not proposed to overlap. A Traffic Management Plan will be developed, in consultation with TRC and TMR, to ensure traffic movements during construction are managed appropriately and provide for the safety of all road users. The construction contractor liaises with relevant stakeholders to allow for existing bus services (e.g. school bus) and other existing traffic movements to continue and to operate safely during construction. Typically, this may involve certain times of the days that deliveries in heavy vehicles may be prohibited to minimise passing of large vehicles. During operation the project is expected to generate a minimal level of traffic associated with the maintenance and operation services. This is expected to be up to 20 light vehicle movements per day which would result in a negligible change to the current traffic environment. This topic was covered in planning application materials including Section 5.6 and Section 7.1 of the Planning Report and addressed in the Planning Scheme Codes Responses to the Rural Zone Code, Environmental Standards Code and Transport, Access and Parking Code. Further information was requested by Toowoomba Regional Council in the Information Request dated 21 April 2023 which was fully addressed in Section 1 of the IR Response (including Attachment A: updated Traffic Impact Assessment and Turner Road Assessment and Attachment H: Access Route Infrastructure (Pipe) Assessment) submitted to Toowoomba Regional Council on 30 November 2023. No further requests for additional information have been received, thus it has been considered this topic has been adequately addressed for planning purposes.
Visual impacts and landscaping	Skylab has conducted a rigorous Landscape Character and Visual Impact Assessment (LCVIA) for the Punchs Creek Renewable Energy project, which considers potential visual impacts of the project infrastructure on the surrounds and nearest neighbours with a line of sight towards the project land. Nearest neighbours and

Submission Theme/Topic	Response
	Toowoomba Regional Council (TRC) were consulted through the preparation of the LCVIA and vegetation screening buffers (or landscape screening) has been recommended in the development application material. Additionally, Skylab has conducted further assessments on potential impacts to flora, fauna and habitat values of the roadside vegetation along Turner Road. The purpose of the additional assessments was to better understand if any impacts may result from potential upgrades to Turner Road if road widening follows the TRC Typical Cross Sections for regional roads. In consultation with Toowoomba Regional Council, Skylab consultants have proposed road widening options to reduce or avoid impacts to matters of local, state and national environmental significance by avoiding the removal of potential critical habitat features and vegetation clearing in the road corridor. Additional benefits in avoiding impacts to matters of environmental significance and retaining the existing vegetation would include, maintaining the landscape values of Turner Road for road users and the local community; and maintaining the noise, dust and visual buffer or relief offered by the vegetation for the local residents along Turner Road. In this way, the proposed project has sought to achieve an outcome which balances road safety requirements, environmental impacts (flora, fauna, habitat) and social impacts (dust, noise, visual/aesthetics) to achieve an acceptable compromise. This topic was covered in planning application materials including Section 5.8 and Section 7.1 of the Planning Report and addressed in the Planning Scheme Codes Responses to the Rural Zone Code, Environmental Significance Overlay Code, Landscape Code and Transport, Access and Parking Code. Further information was requested by Toowoomba Regional Council in the Information Request dated 21 April 2023 which was fully addressed in Section 7 and Section 9 of the IR Response (including Attachment D: updated Landscape Character and Visual Impact Assessment) submitted to Toowoomba Regional Council on 30 November 2023. No further requests for additional information have been received, thus it has been considered this topic has been adequately addressed for planning purposes.
Fire hazard and risk	The project will be designed to minimise the risk of fire. Typically, the battery systems used will have protection systems which will constantly measure the temperature of the cells and will disconnect the batteries in the case of abnormal operation making the risk of thermal runaway and fire very low. In the event of fire, the spacing of the battery units will prevent the fire spreading to adjacent units such the fire can safely self-extinguish without further damage. All battery units

Submission Theme/Topic	Response
	will be surrounded by an area which is permanently clear of vegetation which eliminates any risk of spread of fire to the grass or other vegetation. This key safety aspect will be designed by Punchs Creek Renewable Energy and/or the designated Construction Contractor and must be agreed by the local Fire Authorities prior to construction commencing. The design of Punchs Creek Renewable Energy incorporates a cleared vegetation zone or asset protection zone around the edges of the project to prevent fire propagation. This is complemented by a perimeter access track for emergency access and a strict vegetation management plan. In addition, the project design ensures there are emergency access gates and the project will work with the local Fire Authorities to agree on measures such as installation of large water tank/s, separation and spacing of battery units, etc.., with such measures incorporated into construction and operation Bushfire Management and/or Emergency Response plans. This topic was covered in planning application materials including Section 5.2, Section 7.1 and Section 7.2.3 of the Planning Report and addressed in the Planning Scheme Codes Responses to the Rural Zone Code. No further information was requested by Toowoomba Regional Council in the Information Request dated 21 April 2023 or any subsequent correspondence, thus it has been considered as adequately addressed for planning purposes.
Decommissioning and waste management	Solar panels are manufactured using few components; predominantly aluminium, glass and silicon, and over 90-95% of a panel's weight can be recycled. These materials can be separated and captured, for reuse in the manufacture of other products. Skylab is committed to Project Custodian responsibilities and intend to implement such recycling practices with a local company, where possible. Companies such as Solar Recovery Corporation, are opening facilities in Queensland (currently the nearest to the project is located in Biloela), and the project will look to incorporate a circular practice into our operations. Other companies such as Reclaim PV Recycling or Tindo Solar are based in Adelaide and offer a solar waste management / resource recovery solution. This includes logistics and recycling of PV modules, inverters and batteries. Such companies are expected to open facilities in Queensland in the future and the project would seek to utilise as many local services as possible. New recycling facilities designed specifically to handle end-of-life solar modules have recently been constructed and commissioned. Sustainability Victoria has supported the creation of a solar recycling facility in Thomastown, Melbourne, which is expected to scale throughout the 2020's in correlation to the increasing quantity of end-of-life modules. This represents the circular economy and long-term sustainable solutions that

Submission Theme/Topic	Response
	are critical to the success of the energy transition. In short, we as Australians do not want to export these precious metals to be processed overseas. Punchs Creek Renewable Energy is committed to working with domestic solar recycling facilities. There is no intention for project's batteries to be discarded to landfill. Lithium-ion batteries and PV modules form the critical asset components. Therefore, Skylab recognises that a total cost of ownership strategy must encompass a robust end-of-life management process to ensure the project is a sustainable investment. Punchs Creek Renewable Energy will work with key equipment supply partners and newly emerging E-waste recycling parties, who share our 'Project Custodian' commitments. These end-of-life commitments represents a commercially viable incentive that strengthens the project's commitment to sustainability, local industry and circular economy procurement strategies. Innovations are emerging in the battery value stream that extend the useful life of the battery cells beyond the original Project's use case. At the end of the initial 20-25 year expected lifespan, these battery cells will still possess useful capacity that can be used in 'second-life applications' that require less-frequent battery cycling (charge/ discharge). This topic was covered in planning application materials including Section 5.2, Section 7.1 and Section 7.2.3 of the Planning Report and addressed in the Planning Scheme Codes Responses to the Rural Zone Code, Agricultural Land Overlay Code, Environmental Standards Code, Works and Services Code. No further information was requested by Toowoomba Regional Council in the Information Request dated 21 April 2023 or any subsequent correspondence, thus it has been considered as adequately addressed for planning purposes.
Severe weather events and insurance	This topic is not strictly a planning matter, however it is acknowledged this is a matter of interest and is an area where the Applicant believes a positive contribution can be realised by the proposed project, thus a response has been provided. The frequency and intensity of many extreme weather events have increased significantly in recent decades and this trend is very likely to continue, and even accelerate. A recent article[5] highlighted the stress on farmers with increasing insurance premiums that are rising because of the impact of natural disasters.

[5] https://amp-abc-net-au.cdn.ampproject.org/c/s/amp.abc.net.au/article/103431010

Submission Theme/Topic	Response
	Farmers for Climate Action recently conducted a survey[6] (more than 700 responses from the agricultural sector) which indicated that more than 50% of respondents believe the single greatest threat to farming is climate change. According to the survey, those polled said the biggest threats to farming in their local regions were “increased fires and floods driven by climate change” (39.2%), “commercial conduct by big supermarket chains” (18.7%) and “increasing cost of insurance and fertiliser and other inputs” (17.5%). Just 5.3% nominated the construction of transmission lines on farmland and 7.6% said renewable energy projects. The project will have its own insurance policies in place to provide coverage in the unlikely event that the solar project equipment is damaged (i.e. fire, flood, etc.), or in the event that our operations cause loss / damage / injury to any third parties. These insurances will be placed with major, globally recognised insurance companies, and will provide a very high standard of cover in line with the expectations of our investors, financiers and various other counterparties to the Project. As a requirement of these policies and as a part of our overarching approach to proactive risk management, a project-specific Bush Fire Management Plan will consider both fire-risk mitigation, and detailed procedures to follow in the event of a fire on site (whether arising from within the site or from outside – e.g. an adjacent premises). The project design will likely require water to be kept on site for firefighting purposes. Further, the Environmental Management Plan will include obligations that prevent the spread of fire across the site (such as a detailed vegetation management plan and a buffer / asset protection zone along all boundaries of the project). Skylab understands the concern of adjoining landowners regarding potential damage to a renewable energy facility, however the important elements for consideration are: » For an adjoining landowner to have any liability for fires that have spread from their property into the solar/battery project, it has to be demonstrated that the landowner was negligent in causing damage. In this regard, the project facilities are no different from any other – e.g. rural buildings, an adjacent commercial facility e.g. substation, abattoir, etc. » The occurrence of a fire from a weather event (e.g. a lightning strike) that migrates from the neighbouring landowner's property to the project property would be deemed a natural event and would not likely create a legal liability for the neighbouring landowner. Likewise if there was a heavy rainfall event and water drained from an adjoining property into the project facilities, this again would be

[6] https://reneweconomy.com.au/farmers-says-climate-change-is-biggest-threat-renewables-the-best-solution/

Submission Theme/Topic	Response
	considered a natural event. In any case, the project would never seek to pursue a claim directly against an adjacent landowner's insurances. Any claim in respect of the project assets would be made against the project's own insurers. » An adjacent landowner would not be required to make any adjustment whatsoever to their own insurances – only the landowner whose property is being leased would need to do so. For adjacent landowners, it would only be in the event that your own Insurers specifically asked about the land use of adjacent properties (which to our knowledge, major rural insurers are simply not doing) that this situation would need to be disclosed. In summary, Punchs Creek Renewable Energy will have its own comprehensive insurance program which would respond to any claim in the event of loss or damage to the facility. Notwithstanding, Skylab recommends that landholders on nearby properties continue to take all necessary precautions to prevent the ignition and spreading of fires, in the same way that you already do for the present land users.
Consultation with neighbours and community/public information	This topic is not strictly a planning matter, however it is acknowledged this is a matter of interest, thus a response has been provided. During the early stages of the proposed Punchs Creek Renewable Energy project, Skylab focused consultation and engagement with stakeholders such as Toowoomba Regional Council, state planning, transport and environment agencies, immediate neighbours (with shared property boundaries with the proposed project land) and the local business community. In the preparations and assessments of the planning application materials for the project, extensive consultation has been undertaken with the owner of the land parcels where the project is being proposed, with TRC (as Assessment Manager) and relevant state agencies for referral activities. The landowner has conducted some engagement with neighbouring property owners, often opportunistic conversations when seeing each other as neighbours. Where available, occupants of neighbouring residential dwellings who may have a view towards the proposed development were visited by the visual consultant and landowner during a site visit for the Landscape Character Visual Impact Assessment on 9 December 2022. Of the 35 non-associated residences and 8 roads identified, detailed assessment was completed on 10 residential dwellings and 3 roads. In accordance with the *Planning Act 2016*, letters were sent to the 'adjacent landowners', as provided by the Assessment Manager, to be notified of the proposed development. The planning rules define an adjacent landowner as the owner of a land parcel which shares a property boundary with the application land. Consequently, land parcels that are separated by gazetted roads are not recognised as an adjacent

Submission Theme/Topic	Response
	landowner. Therefore, those landowners were not included as required recipients of the letters issued to provide advice on the Public Notification period and process relevant to the proposed project. However, it is noted that some or most of those landowners/residents separated by a road from the proposed project land have otherwise been consulted or had some communication regarding the project since commencement of early project activities in the later months of 2022 and early 2023. A Community Information Drop-In session was held in Millmerran on 24 January 2024. The timing of the community engagement was to coincide with the Public Notification period which occurred between 15 January and 5 February 2024. The community session was held at the Millmerran Community and Cultural Centre between 5.30-7.30pm and was well attended (more than twenty people, many did not sign in on the register form). Topics discussed in the session included land values, road access (not wanting Owens Scrub Road to be used), overland water flow during flood events and where the workers would be accommodated. Follow-up correspondence was shared with attendees who asked for more information. Punchs Creek Renewable Energy has also been engaging with Millmerran Commerce and Progress Inc. (MCP) to better understand the business community and to seek deeper connections with members and locals. MCP assisted the project to share information through their network about the project and to advertise the Community Information Drop-In session in Millmerran. Further targeted engagement with neighbours and key business and community stakeholders is expected in coming months as the proposed project progresses through milestones and as further project-specific activities evolve.
Pollution risks to humans, animals, insects, birds, etc.	Solar panels are deployed on over 30% of Australian homes and have been deployed extensively for the past 10 to 15 years on homes in the world. Punchs Creek Renewable Energy would use the same type of technology, with the exception that the project operates at a higher voltage and scale. Because PV panel materials are enclosed, and do not mix with water or vaporize into the air, there is little, if any, risk of chemical releases to the environment during normal use. The most common type of PV panel is made of tempered glass. Tier-1 modules with tempered glass pass hail tests and are regularly installed in locations that experience extreme conditions. Skylab has engaged specialist consultants to undertake detailed flora and fauna surveys to determine the ecological attributes of the land. On all of our projects, we aim to minimise the impact on flora and fauna by designing projects to be constructed outside areas of high conservation significance and adopting control measures during the construction process.

Submission Theme/Topic	Response
	Punchs Creek Renewable Energy site has been selected, in part, due to the lack of vegetation that is present on the development area today due to the land being used predominantly for cropping and grazing activities. Vegetation along fence lines and drainage or watercourse corridors will be retained, while adopting other mitigation measures including preparing management plans and conducting pre-clearance surveys. The proposed project has sought to reduce or avoid impacts to matters of local, state and national environmental significance by avoiding the removal of potential critical habitat features and vegetation clearing in road corridors. Additional benefits in avoiding impacts to matters of environmental significance and retaining the existing vegetation include, maintaining the landscape values for road users and the local community; and maintaining the noise, dust and visual buffer or relief offered by the vegetation for the local residents along the transport route. In this way, the proposed project has sought to achieve an outcome which balances road safety requirements, environmental impacts (flora, fauna, habitat) and social impacts (dust, noise, visual/ aesthetics) to achieve an acceptable compromise. Ground cover regrowth is successful within solar farming infrastructure because tracking systems allow panels to move with the sun's movement through the day. This means the ground is receiving both sunlight and shade, which improves growth and quality because the ground is not constantly shaded or baked under the sun. This also allows for greater moisture retention, again fostering vegetation growth and retention. In other words, the shading effect of solar panels creates a micro-climate under the panels with differences in air temperature, humidity, wind speed and soil moisture. This leads to higher water efficiency and soil moisture retention. This would assist with pasture production for sheep grazing. Solar and battery projects have been operational for many years across most states and territories in Australia (and internationally). There are no known studies indicating the proximity of solar and battery infrastructure has affected farm or domestic animals that exist adjacent to these projects. A growing number of these projects are now hosting sheep and many of the projects have livestock grazing in adjacent properties. Reports from such projects indicates the sheep take a couple of days to get used to the site, and then are very comfortable with the solar and battery infrastructure. The sheep commonly use the shade from the solar arrays during summer to escape the harsh temperature and conditions. Given the local sheep grazing land use in proximity to the development land, there is strong consideration to co-locate a sheep grazing activity (via agistment or other arrangement) within the development to continue the agricultural use of the project lands and manage the ground cover. Other complimentary uses that may

Submission Theme/Topic	Response
	be considered during operation include bee keeping, which would also provide benefit to local cropping activities with pollination and biodiversity improvements. A recent five-year study[7] in the United States found planting and regrowth of native grasses and flowering plant species within solar farms can create hubs for insect biodiversity and also help to mitigate rising conflict of land use change. Over time, the numbers and types of flowering plants increased as the habitat matured and helped insect populations to massively improve – by up to 20 times in the case of native bee populations. There was a corresponding positive impact for native insect pollinators and agriculturally beneficial insects, with results showing that insect abundance tripled and diversity increased by 150%, with these insects also being seen on neighbouring farms. This research highlights the relatively rapid insect community responses to habitat restoration at solar energy sites. It demonstrates that, if properly sited, habitat-friendly solar energy can be a feasible way to safeguard insect populations and can improve the pollination services in adjacent agricultural fields. Some useful articles and links are provided here: https://lightsourcebp.com/news/six-reasons-why-solar-farms-make-great-grazing/ https://reneweconomy.com.au/uk-pm-says-solar-farms-are-a-blight-on-the-landscape-heres-how-they-benefit-wildlife/ https://assets.cleanenergycouncil.org.au/documents/resources/reports/agrisolar-guide/Australian-guide-to-agrisolar-for-large-scale-solar.pdf https://www.abc.net.au/news/rural/2022-05-30/solar-farm-grazing-sheep-agriculture-renewable-energy-review/101097364 https://www.linkedin.com/posts/gavinmooney_renewables-solar-rooftopsolar-activity-7117625749846560768-2yOx?utm_source=share&utm_medium=member_ios https://edifyenergy.com/project/gannawarra-solarfarm/ Information relating to this broad topic was covered in multiple sections of the planning application materials including the Planning Report and the Planning Scheme Codes Responses, as well as the IR Response submitted to Toowoomba Regional Council on 30 November 2023. It has been considered this topic has been adequately addressed for planning purposes.

[7] https://reneweconomy.com.au/solar-farms-and-native-grasses-create-pollinator-havens-and-boost-biodiversity-study-funds/

Submission Theme/Topic	Response
Dust and noise during construction	Potentially sensitive equipment (inverters, substation, transformers and batteries) can create some noise emissions for the Project. The noise emissions can become higher during high temperatures as the fan speeds for inverters and batteries increase, and if the wind speed and direction carry the noise direct to adjacent landholders this could create a nuisance. The project's design allows flexibility to situate potential noise emitting equipment as far away from neighbouring residences as possible, to allow the noise levels to dissipate to low levels that are typical for this regional setting during the adverse climatic conditions. The Project construction will be during 'standard' working hours to limit nuisance noise to the surrounding landholders that could impact on health and wellbeing. Standard working hours would be Monday to Friday 7am to 6pm, and potentially Saturdays 8am to 1pm, or as otherwise determined and agreed by Council. An Operational Noise Assessment has been completed for the project by an experienced acoustic consultant, as part of the application materials provided to Council. The assessment confirmed the predicted variable and continuous operational noise levels of the project are expected to comply with the noise criteria at all nearby and surrounding residential receivers. The concept layout design has considered the placement of key infrastructure to be sufficiently separated from residential buildings. Monitoring of dust levels during construction is a basic requirement of each project. Dust generating activities are assessed during windy conditions and may be stopped and rescheduled where adequate control of dust generation cannot be achieved. Visual observation of machinery is undertaken during site inspections in addition to daily pre-start checks which ensure all machinery has appropriate emission control devices, is in good working order and is maintained correctly. Trucks that spray water to suppress dust will be utilised when required – mostly likely on a daily basis – which will reduce the impact of dust from the various truck deliveries throughout the construction phase. In our experience, most solar farm sites have vigorous ground cover regrowth, so much so they require ongoing mowing or have introduced sheep grazing to manage. Ground cover regrowth is successful within solar farming infrastructure because tracking systems allow panels to move with the sun's movement through the day. This means the ground is receiving sunlight and shade, which improves growth and quality because the ground is not constantly shaded or baked under the sun. This also allows for greater moisture retention, again fostering vegetation growth and retention. In other words, the shading effect of solar panels creates a micro-climate under the panels with differences in air temperature, humidity, wind speed and soil moisture. This leads to higher water efficiency and soil moisture

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	retention. This would assist with pasture production for sheep grazing, which is a consideration for this site with good evidence of the mutual benefits that co-location with sheep grazing can provide. All frequently used areas for vehicle manoeuvring are to be hardstand areas in line with the appropriate staging of the development. This will ensure that areas where vehicles are most likely to be moving will have a gravel or other hardstand finish, which will result in minimising dust fall. In operation, most vehicle movements within the facility will involve light vehicles and would typically remain on the developed internal access tracks/roads which will have a road base surface. It is expected up to 10 LVs may be required during operations of the full development, however movement of those vehicles on any given day is expected to be minimal and dependent on what maintenance activities are active. For instance, it is highly unlikely all 10 LVs would be moving around the site at the same time. Typically, only one or two LVs may be moving on site at any one time. Vehicle movements on site are also speed limited (during construction and operation) to minimise dust generation. The Powerlink Substation will have blue-metal rock cover over most of the surface and internal roads will be spray sealed. This will result in minimal, if any, dust generation. Operations Management Plan/s would include aspects such as Air Quality (Dust) and Ground Vegetation Control/Cover, which will document appropriate mitigation and management measures to ensure compliant operation of the renewable energy facility. For instance, it would be standard practice to notify local residents of scheduled maintenance activities that have the potential to generate higher than normal operations dust levels. Mitigation measures such as dust suppression (water spray and/or geo-binder/dust retardant products) could also be employed in the event of such dust generating activities. Ground vegetation coverage could be monitored to ensure a minimum percentage of ground cover is achieved across the site, with agreed mitigation measures to address any deficiencies detected. The plan/s would include a complaints management procedure including project-specific details (e.g. contact name/s and number/s) in preparation for commencement of operation. The proposed development is not immediately adjacent to any residential use, with the nearest residence located approximately 274m from the site and the majority of nearest receivers being located more than 900m from the site. The proposed use involves retention of almost all the existing roadside and fence line vegetation and will plant additional vegetation screening areas. This vegetation within the development land and on roadsides will improve impact mitigation and help maintain the character and ambience of the local area.

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	These factors will serve to minimise dust and noise generation and thus dust or noise nuisance for the nearest receiver/s. This topic was covered in planning application materials including Section 5.10 and Section 7.1 of the Planning Report and addressed in the Planning Scheme Codes Responses to the Rural Zone Code, Agricultural Land Overlay Code, Environmental Standards Code, Transport, Access and Parking Code and Works and Services Code. Further information was requested by Toowoomba Regional Council in the Information Request dated 21 April 2023 which was fully addressed in Section 4 and Section 5 of the IR Response (including Attachment C: Operational Noise Assessment) submitted to Toowoomba Regional Council on 30 November 2023. No further requests for additional information have been received, thus it has been considered this topic has been adequately addressed for planning purposes.
Construction workers	This topic is not strictly a planning matter, however it is acknowledged this is a matter of interest and is an area where the Applicant believes a positive contribution can be realised by the proposed project, thus a response has been provided. It is acknowledged that if multiple large infrastructure projects in the region should be under construction at the same time, there would be a strain on local accommodation options and worker availability. It is anticipated that up to half of the project workforce may originate from Toowoomba, approximately 5% from Brisbane, 25% from townships south of the project and approximately 20% from west of the project. After some further discussion with Millmerran Commerce & Progress Inc., local businesses and review of accommodation options in reasonable proximity to the proposed project land, it is possible more local accommodation for workers who will need to travel can be considered. Some options being explored include: Pittsworth Motel and surrounds, Leyburn cabins and caravan park, use of Inglewood accommodation, potentially minor use of Warwick accommodation. It is noted that Millmerran has limited options, however an upgrade to the Showgrounds to allow caravans may be beneficial. The use of Wellcamp or similar in Toowoomba, involving bussing workers to and from site each day, is a strong consideration in the absence of similar options more localised to the project site.
Limited medical and emergency representation locally	This topic is not strictly a planning matter, however it is acknowledged this is a matter of interest and is an area where the Applicant believes a positive contribution can be realised by the proposed project, thus a response has been provided.

Submission Theme/Topic	Response
	The project will work closely with state and local emergency services agencies to share project information relevant to the potential provision of response services to the project and management requirements of the project. Relevant management plans and strategies will be developed in consultation with the respective agencies and project staff and contractors will be inducted and trained in applicable emergency response requirements. The project will have a local participation plan and will establish a community fund in consultation with the local business community and Council, which is designed to support community group projects. Community benefit funds can be used to sponsor and/or subsidise local services, especially voluntary groups providing essential services such as fire-fighting/management and health services to the local communities.

We trust this information is sufficient for response purposes, however should you require any further information, please contact me per the details below.

Yours faithfully,

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