



Victorian
Farmers
Federation

Submission to the Victorian Transmission Plan Guidelines – Study Area

VicGrid

30 September 2024

Contents

Introduction	3
Places in the Study Area that should be protected and avoided.	4
What criteria have been mapped by VFF?	5
What areas should be avoided?	5
Map 1 – areas of avoidance	6
Refinements to the SLUA to ensure knowledge on co-location is embedded in the VTPG.	7
Map 2 – key agriculture commodities, soil, climate and water resources.	7
Potential constraints from renewable energy and transmission on agriculture for inclusion in the VTPG.....	9
SLUA Maps need to understand the likelihood of gaining commercial consent.	10
Planning Considerations – co location.....	11
Role of safety regulations in understanding constraints on agriculture.....	12
Attachment 1 – Map layers and description	13
Attachment 2.....	24

Introduction

This submission should be read in conjunction with the VFF submission to the Victorian Transmission Plan Guideline (VTPG) methodology.

The VFF is concerned the focus of the Guidelines, *to make sure they deliver an affordable, reliable, safe and secure transition to net zero emissions, while increasing community understanding and acceptance, and encouraging industry investment*, will fail to address the social license and landholder acceptance issues from the recognised shortcoming of the established RIT-T process to account for and therefore avoid impacts on agricultural production and farm businesses.

The material provided for feedback did not include the detail of each mapped layer, including the age of the data and any limitations on its use. The extent of Tier 1 and Tier 2 zones on areas where landholders would be facing significant constraints to their farming operations from renewable energy and transmission infrastructure highlights shortcomings in the Strategic Land Use Assessment (SLUA) mapping exercise.

In response the VFF has documented the potential constraints that would be imposed on different farming systems by renewable energy and transmission infrastructure in order to better determine where:

- renewable energy and transmission infrastructure should be excluded due to the significant impacts on strategic agricultural land of state significance; and
- renewable energy and transmission infrastructure would require significant modification to achieve co-location with predominant agricultural uses in a region.

It is important to note that renewable energy and transmission infrastructure outside of these areas needs to be designed, constructed, operated and decommissioned in conjunction with a comprehensive Land Access Code of Practice and associated guidance information.

This submission seeks to:

- identify the agricultural issues that should be used to refine the broad geographical study area to draft proposed renewable energy zones;
- identify regions within the study area that the Victorian Government should protect from renewable energy and transmission infrastructure due to the strategic importance of farmland to Victoria; and,
- give direction on the types of constraints that renewable energy infrastructure can have on agriculture to assist in the development of a Land Access Code of Practice which is designed to minimise and mitigate the impacts of infrastructure development and operations and farm businesses and farm production across the state.

All maps and tables are to illustrate considerations to be included in the refinement of the Strategic Land Use Assessment elements of the Victorian Transmission Plan Guidelines to ensure the achievement of co-location of renewable energy and agriculture.

Places in the Study Area that should be protected and avoided.

The VFF has used available data to map significant agricultural areas and input factors. It has also undertaken research into the physical nature of different production systems, including tools of trade, and the level of constraint or co-existence between wind, solar and transmission when regulatory settings are considered.

The VFF believes that the draft VTPG should not exclude all Crown land. It is likely that many farms will have greater biodiversity and habitat values than a state forest under pine plantation. The SLUA model should not make broad assumptions based on land tenure, including the assumption that all agricultural land has minimal environmental qualities or that all agricultural land can host renewable energy and transmission without impact to farm operations and the food security of the state.

It is essential that the SLUA model be refined so that it allows the consideration of the appropriateness of the land to host renewable energy and transmission. Available local and regional information, including Planning Scheme information should be used for this purpose. Hazard overlays such as flooding, and bushfires are mapped statewide and delivered through the planning scheme. Significant heritage or landscape values are mapped to consistent methodology statewide and assessed by an expert panel.

By using, and not making available the mapping or the metadata, bespoke datasets do not allow the assessment of the rigor of the VTPG or the SLUA. For example, it can lead to areas under radiata pine being protected for biodiversity and impact being transferred to economically strategic farmland.

The VFF believes significant work is required to ensure the SLUA considers co-location with agriculture and uses weightings that reflect the economic consequences on landholders from renewable energy zones including transmission in the wrong area.

Protection of Agricultural Land is one of the top 8 Big Ideas in Plan for Victoria. The VFF will identify what it sees as State Significant Agricultural Land where renewable energy and transmission should be avoided. Councils and regional growth plans will identify regional and local significant agricultural land. It is essential that the VTPG, planning approvals processes and safety regulations are refined so that renewable energy can occur without major impacts on farm productivity.

A comprehensive land access code of practice would then ensure that there was regulatory enforcement of the control measures put in place to achieve this outcome.

What criteria have been mapped by VFF?

The VFF has mapped areas of Victoria. Rainfall, soils, climate resilience, irrigation and pipelines, areas under horticulture, dairy and grains (livestock occurs throughout Victoria). Consideration was given to the constraints that renewable energy and transmission would have on agriculture and areas that are strategically significant due to production type, infrastructure and climate.

Informing the interpretation of these layers is work undertaken that considers different agriculture commodities, the production system and tools they utilise, and how energy safety, planning and environmental regulations relating to renewable energy infrastructure may impact on current business as usual for farms hosting or within buffer zones of renewable energy and transmission.

Dairy and horticulture production have high yields per hectare, support on farm employment and significant food processing, transport and service sector employment. They require fertile soils and reliable water.

When land used for dairy or horticulture is taken out of production it is difficult to find land suited for these systems. The cumulative impact of loss or reduction in output leads to the closure of processing facilities in regional towns and related reduction in service sector jobs. This in turn has further flow-on effects such as contributing to the loss of medical and education services in towns.

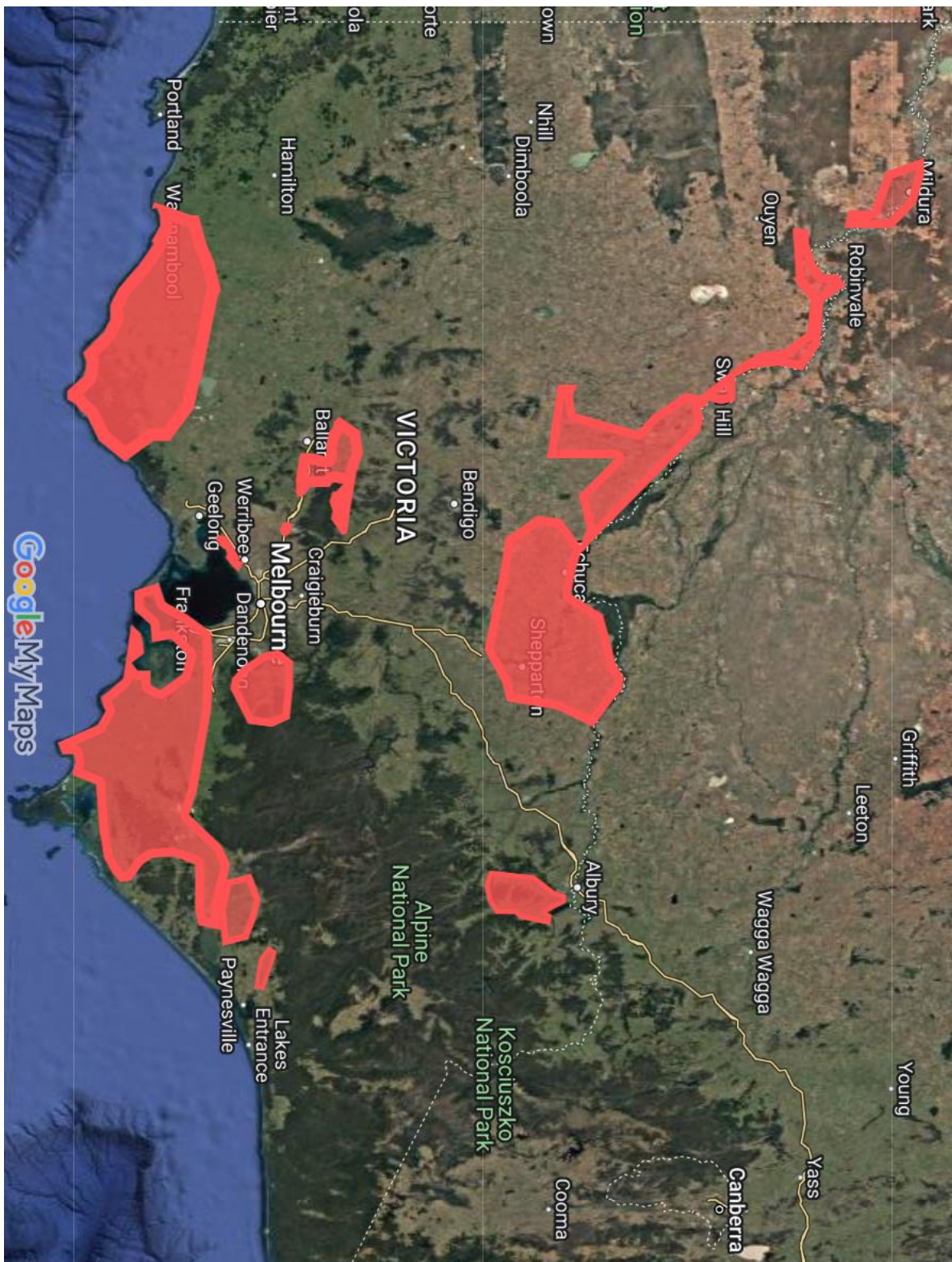
What areas should be avoided?

Mapping climatic, infrastructure and commodity layers, in conjunction with knowledge regarding constraints of renewable energy and transmission infrastructure on different farming systems highlighted that dairy and horticulture commodities were a good indicator of areas to be avoided.

These commodities are in areas with productive soil, reliable rainfall or irrigation systems and are the hub of food processing and manufacturing. The areas in red where renewable energy and transmission should be avoided.

All remaining areas will still require careful considerations to ensure that renewable energy generation, storage and transmission does not reduce the productive output on site through impacts to soil, through the spread of weeds and disease or to the use of farm machinery and tools such as irrigation, drones or aircraft. The VTPG and planning approvals need to achieve co-location between renewable energy and transmission with agriculture.

Map 1 – areas of avoidance



This map is for illustrative purposes to assist in the refinement of the Strategic Land Use Assessment elements of the Victorian Transmission Plan Guidelines. VicGrid will need to undertake the detailed mapping of areas to determine areas to be excluded from Renewable Energy Zones.

Refinements to the SLUA to ensure knowledge on co-location is embedded in the VTPG.

The VTPG needs to demonstrate how the SLUA process has ensured that Renewable Energy Zones and Overhead Transmission through farms is directed away from the areas of high social, economic and environmental impact. Then the planning design and approvals process needs to be focusing on ensuring renewable energy and transmission achieves true co-location with agricultural production.

Planning a REZ zone around solar resources in a grains area would not lead to co-location with agriculture in the standard solar array installation in Australia. Canada installs vertical solar panels spaced 30m apart to allow for the use of a combine harvester, a wider spacing would be required to accommodate most boom sprays in use.

Declaring that REZ would see many farmers not willing to sign up for the project. When land was for sale energy generators who receive significant annual subsidies would be able to purchase farmland for greater than its productive value. It would lead to underutilised transmission infrastructure that places hosts at a competitive disadvantage to their neighbours who do not face restrictions on the production tools they can utilise.

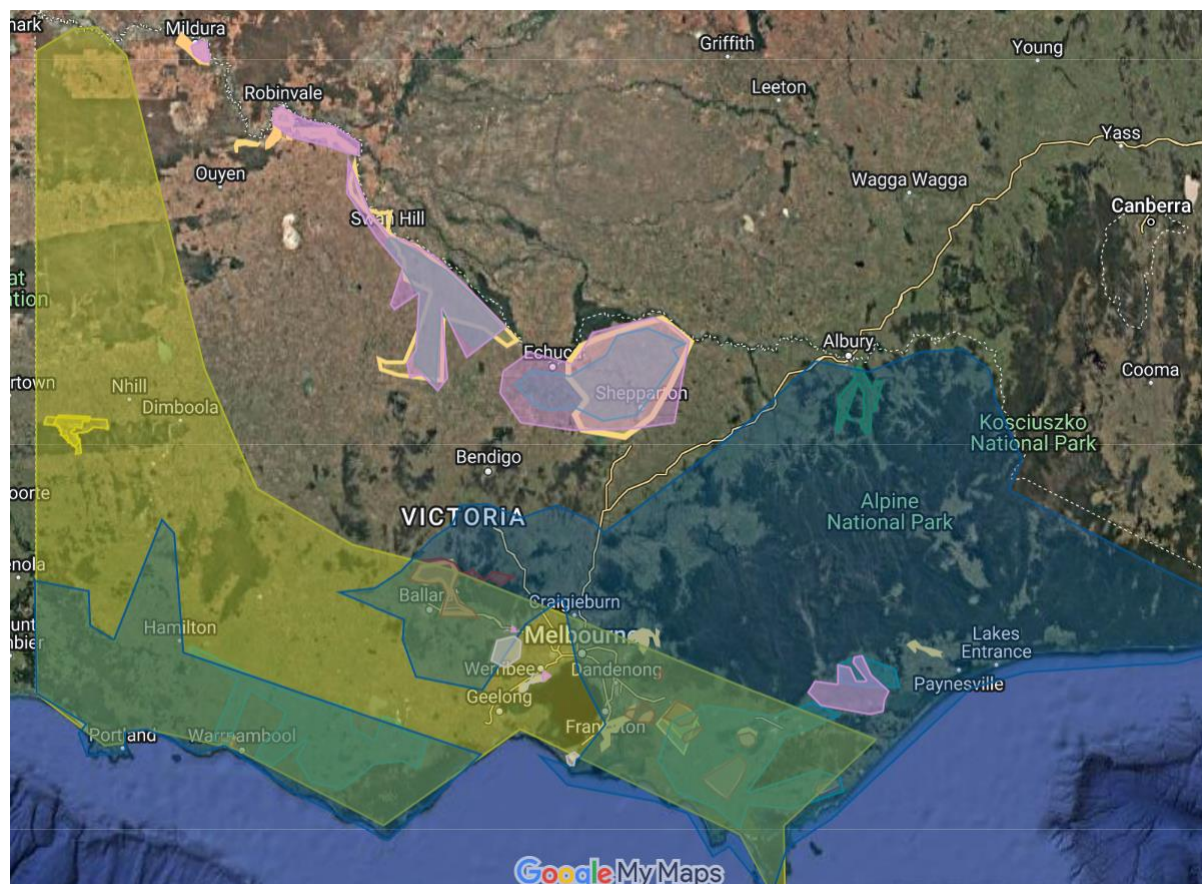
The overlay of the mapped layers indicates that the market without distortion from Government subsidies for renewable energy or forestry, higher value commodities that support on farm and secondary processing jobs have located in areas of Victoria with good soils, reliable water and a suitable and more resilient climate. These areas are more densely settled and more heavily impacted by renewable energy buffers on housing or use of farming tools.

Other areas have invested in water security through irrigation schemes and pipelines. Farming is climate exposed industry, and the sector invests in technologies that increase its resilience, reduces emissions intensity, improves soil health while maintaining product quality and high welfare and safety standards.

Agriculture is a price taker; an individual farmer cannot pass on higher production costs due to hosting transmission or renewable energy. They need certainty in the regulatory and operational restrictions that are in place, and in enforceable standards for land access, rehabilitation and decommissioning so that they can make an informed decision about hosting renewable energy and transmission (commercial consent).

The AEIC [Community Engagement Review](#) for Minister Bowen highlighted that this information is not being provided to landholders. The ESC [Land Access Code of Practice](#) does not apply to existing transmission and is focused on land access for studies – where the significant operational challenges are during operation and decommissioning. Legislative changes are required to ensure there is a comprehensive Land Access Code of Practice for all transmission infrastructure in Victoria.

Map 2 – key agriculture commodities, soil, climate and water resources.



It is recommended that the SLUA process is refined to incorporate:

- the VFFs research into constraints.
- LGA level data on natural hazards, landscape and strategic agricultural land.
- The collection of data sets from agriculture industry bodies.
- Development and incorporation of information from longitudinal surveys of landholders with renewable energy infrastructure on their land or are within relevant buffer zones that impact on development.

It is recommended that learnings from the SLUA refinement process be utilised to prepare a comprehensive Land Access Code of Practice to apply to all renewable energy and transmission infrastructure for the life of the asset.

To assist with this the VFF has attached individual layers and the significance to consideration of areas to be avoided are included in Attachment 1, and the tables from VFF research into the regulatory and operational issues that determine constraints or co-existence in Attachment 2.

Potential constraints from renewable energy and transmission on agriculture for inclusion in the VTPG.

Renewable energy generation and storage requires commercial consent from landholders. Encouraging renewable energy in areas where commercial consent is unlikely to be gained from landholders can accelerate the unplanned loss of agricultural land as third parties can pay more to purchase farmland for non-agricultural purchases due to subsidies paid to energy generators, and productivity on remaining land is impacted by regulatory restrictions.

Failure to understand the restrictions that renewable energy and transmission can have on agriculture is driving the loss of social license and landholder resistance to hosting infrastructure. At a time where it is difficult to find affordable farm worker or key worker accommodation in rural areas, landholders are unable to build workers accommodation on farm due to exclusion areas around wind turbines, which is an increasingly significant issue impacting dairy production in South West Victoria.

Energy experts and safety regulators do not always understand farming practices and farmers are rarely consulted in changing energy safety regulations. As farming systems evolve to meet local physical, climatic and regulatory environments and each state has different safety regulations there is a gap our understanding of how to plan for renewable energy infrastructure that is seen as a benefit to the farm business.

Loss of social license is accelerated by agricultural land being bought by energy farmers using Government subsidies. The generator passes on approximately 5% of the subsidies received to the host landholder. The energy company receives subsidies higher than the cost of the land and the cost of construction, which can lead to energy developers purchasing farms at a higher price than a farmer and removing the site from agricultural production.

The host landholder is not given clear information on potential impacts on production to be able to calculate commercial consent. There are no regulatory safeguards to ensure the operator honours the conditions of the contract and ensures full rehabilitation and decommissioning occurs, including the remove of sub surface footings.

The 'commercial consent' payment to host landholders for generation are not present in relation to hosting transmission. Although it is recommended that these projects are funded via commercial consent Government bodies are planning routes based on compulsory acquisition and using materials that does not trigger the calculation of business impact. The impact of hosting transmission is greater than hosting wind in that it has similar construction / soil impacts in relation to pylons but has greater safety and operational burden due to restrictions relating to overhead wires.

The SLUA methodology has failed to consider regulatory and operational issues by proximity to transmission over-riding agricultural significance. By failing to understand agriculture impacts and commercial consent the SLUA model will promote renewable energy where there is high

likelihood of significant constraints to agriculture and cumulative negative impacts to regional economies.

SLUA Maps need to understand the likelihood of gaining commercial consent.

The most effective way to ensure the timely transition to renewable energy is to ensure landholders see a benefit from hosting renewable energy infrastructure. The VFF calls this benefit commercial consent.

SLUA maps for farming areas must understand the parameters that determine whether farmers see hosting as a benefit to their business. Promoting the purchase of farmland for energy generation based on regional jobs where that farmland supported greater on farm employment and significant supply chain employment must be reconsidered. Dairy and horticulture have significant on farm, farm supplies, transport and processing jobs. Renewable energy jobs where farm productivity is reduced is likely to have a negative impact on the sustainability of regional communities and service centres.

By failing to understand the on farm and regional economic impact of renewable energy zones in modelling and regulation there is increased community resistance to hosting this infrastructure.

The way to overcome resistance is to commit to a process where there are few constraints to hosting renewable energy and transmission and the payments received to hosts and impacted neighbours exceed those impacts. This is why determining where commercial consent from landholders is more likely and how to design projects to allow continued farm operations is essential to gain community support and increase the likelihood of a smooth approval and operational phase.

If a transmission pylon or wind turbine is on a 30m x 30m pad, the impact of this footprint alone has different impacts for different commodities. If that area is used for a crop that returns a gross income \$1000 a hectare commercial consent would be easier to achieve than a crop that returns a gross income of \$15,000 a hectare.

Therefore, where an asset restricts operations beyond the structural footing the ability to achieve commercial consent is further reduced as the annual payment to host must increase accordingly.

The failure to understand that transmission lines have significant impacts on farm businesses and that the current LAC Act process is not triggering the consideration of ongoing business impact is driving regional resistance to transmission.

If the SLUA is to provide the information that the VTPG needs to ensure renewable energy and transmission are planned to minimise impact to agriculture and regional economies, the VFF believes it is critical to refocus agriculture input in the SLUA to:

- Understand the type of production in an area.
- Understand the potential conflict their proposal may have on the production system in place, including safety regulations.

- Understand whether it is possible to design and locate infrastructure to minimise impact on land use.
- Understand the need to protect soil and how to protect soil structure and health during the life of the project, including decommissioning.

The VFF believes that the SLUA should assist in ensuring the VTPG is supporting projects that are viable once full compensation / commercial consent/ regional economic impacts are considered. The inclusion of tier 1 and tier 2 in areas of maximum constraint on agriculture indicates that the current tool is not achieving this objective.

The SLUA must become a critical tool used to achieve the spatial representation of areas where renewable energy and transmission is likely to achieve a negative impact to hosts and the broader economy. By avoiding these areas effort can be placed in overcoming the operational and regulatory constraints of renewable energy on agriculture so that the objective of renewable energy being a value add / diversification to agricultural businesses is achieved.

Tier 1 and 2 should be applied where the Government is confident that these projects are cost effective once the likely life of asset cost of the project including annual business impact payments are included.

The VFF is concerned that the current SLUA has used weightings to discount farm business impacts to support existing transmission (with no spare capacity) and ISP projects. This will lead to perverse outcomes from the wrong infrastructure in the wrong place.

The operation of the VTPG should include a comprehensive land access code of practice that places the landholder as a key stakeholder in relation to land access, biosecurity, compensation and rehabilitation plans throughout the life of the project. It should be recognising that the ESC Access Code was limited by the existing legislation and is not recognised as a comprehensive land access code of practice.

The VFF calls on VicGrid to ensure that the knowledge gap on potential conflict or co-existence between renewable energy and transmission and agriculture in the current SLUA is overcome prior to the finalisation of any renewable energy zone or the VTPG. Attachment 2 contains Tables 1, 2 and 3 demonstrate the information that needs to be considered in REZ zone selection and infrastructure design for wind, solar and transmission.

Planning Considerations – co location

Co-location is a term used by VCAT in *Helios Volta Holdings*. VCAT found the balance between solar farm and agricultural land uses is achieved where co-location is evident, defined as where solar facilities are '*subservient to agriculture...(and) acting to support ongoing agricultural activities within productive areas*'. This is a similar concept to the "in conjunction with" test in planning, where the new use is secondary to the primary use of the land.

The VFF believes a key shortcoming of the current regulatory system in Victoria is the clear gap of understanding on how to ensure renewable energy generation, transmission or storage is 'subservient' to agriculture, especially when there is no commercial consent.

As Renewable energy is predominantly located in the Farming Zone the SLUA should allow the consideration of the following decision guidelines.

1. 'Whether the use or development will support and enhance agricultural production.
2. Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production.
3. The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses.
4. The capacity of the site to sustain agricultural use.

Role of safety regulations in understanding constraints on agriculture

A safe work approach to infrastructure design requires project planners and commissioners to design projects so that existing land uses can continue to operate safely. It is essential that the VTPG are based on a Land Access Code of Practice that ensures energy infrastructure does not restrict agriculture production; and where this cannot be avoided compensation, including annual business impact payments are made.

Many landholder concerns regarding hosting renewable energy infrastructure are dismissed as 'misinformation' where they relate to confusion over safety regulations.

Energy Safe Victoria, Ausnet and TCV all release safety information. There are significant differences between the three documents. Can you continue to grow a crop if you may not receive a permit to use your tractor to harvest the crop?

Safe Work Australia's General Guide for working in the vicinity of overhead and underground electric lines states that the proponent has a duty to ensure so far as is reasonably practicable, the plant or structure is without risks to health and safety. Designers and manufacturers of electrical equipment or installations must ensure they are designed and manufactured so electrical risks are eliminated or, if this is not reasonably practicable, minimised so far as is reasonably practicable.

Attachment 1 – Map layers and description

Climate – Temperature

The South-West corner of Victoria has the lowest decadal increase in temperature. Temperature is a key factor in the types of crops that can be grown, in animal welfare and in reduction of threats from invasive species and disease.

In Victoria there are indications that some production systems are shifting with changes in climate. For example, grains production is moving further south and there is more shed based dairy production occurring in Northern Victoria.

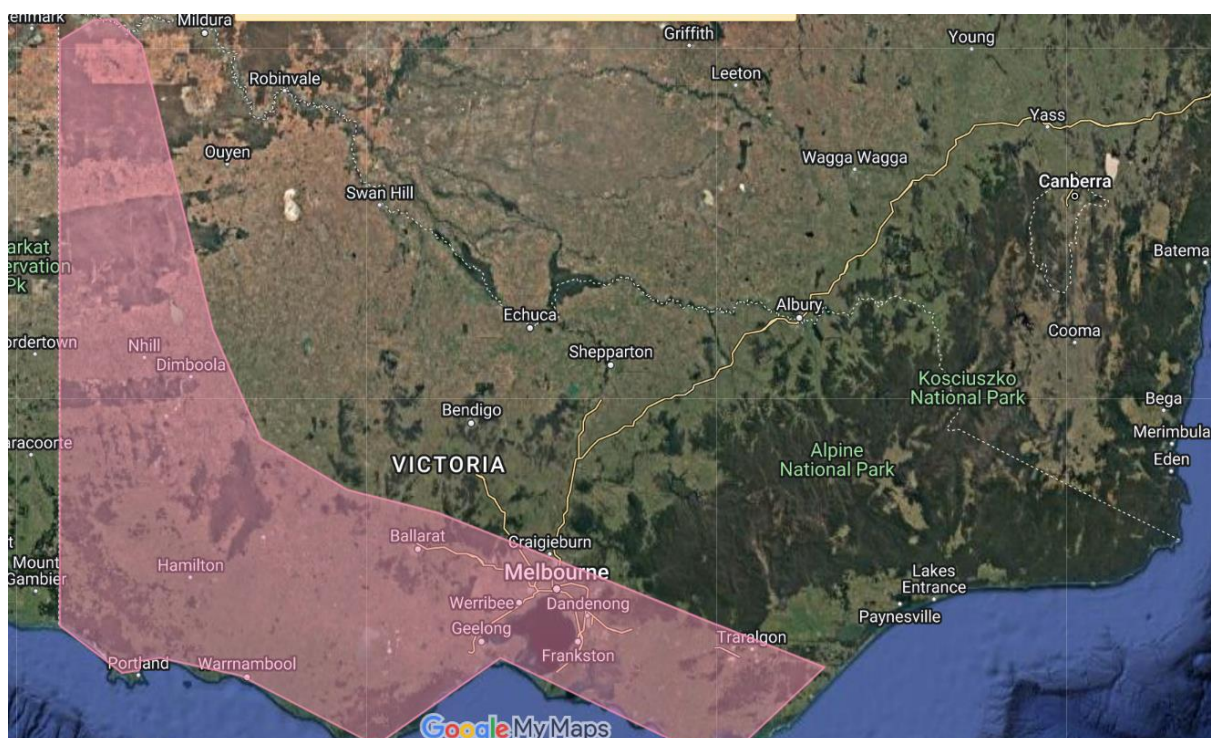
Water pipelines such as the Wimmera Mallee scheme give greater security for stock and domestic water.

Significance to coexistence with agriculture.

Ensure renewable energy and transmission is designed to allow co-location with agriculture, especially in areas where temperature increases are lower.

Consideration could be given to the role that renewable energy generation could play in areas that are made more marginal for broadacre production of grains or livestock.

Map of lowest annual increase in temperature in Victoria



Rainfall

The southern areas of Victoria have more reliable rainfall. Greater volume of rainfall and greater reliability allows for higher value crop and livestock production, predominantly without the need for a declared irrigation district as licenses are available to irrigate / water from rivers, dams and groundwater.

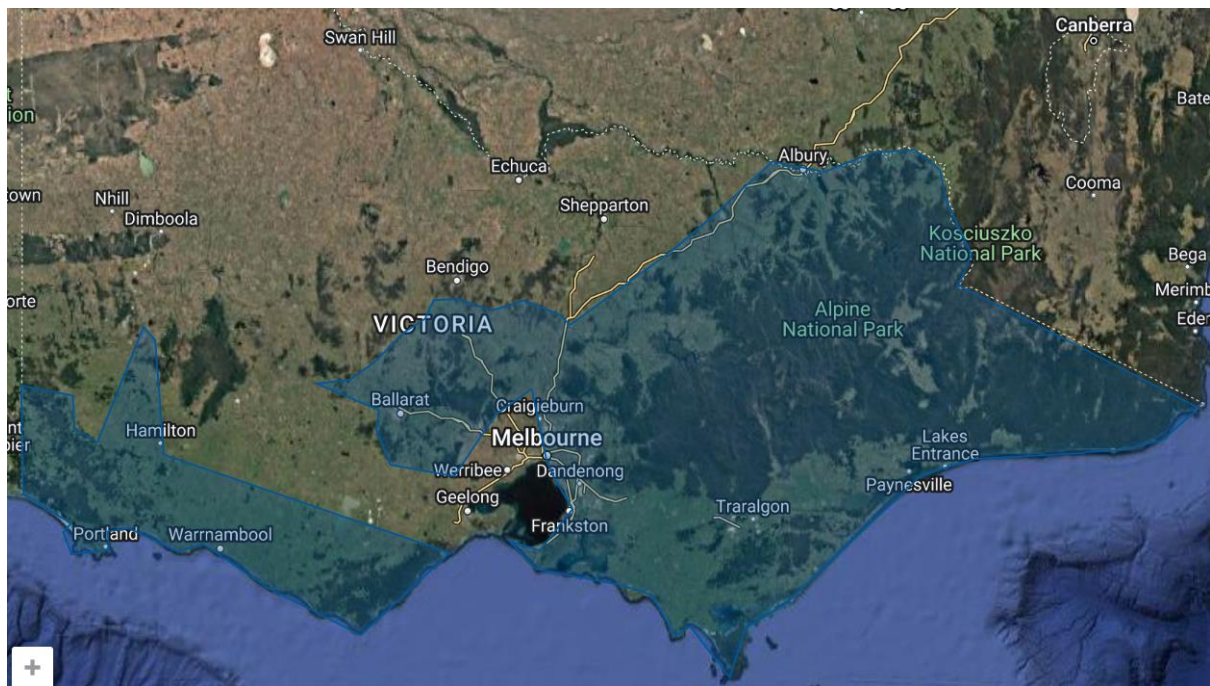
The Macalister Irrigation District is in a rainfall profile like the areas north of the divide and south of a line from Horsham to Echuca. This scheme draws on significant alpine catchments and provides more secure water.

Significance to coexistence with agriculture.

Ensure renewable energy and transmission is designed to allow co-location with agriculture in reliable rainfall areas.

Recognise that farm size is smaller and production per hectare is higher in areas with reliable rainfall.

Areas of greatest rainfall in Victoria



Irrigation and water pipelines

Victoria has several irrigation districts that produce food and fibre for domestic and international markets and support major processing facilities such as SPC Ardmona.

The loss of agricultural production can increase the price of water (fewer properties paying to maintain the scheme) which can threaten the viability of the schemes.

Grey water pipelines are operating in the Mornington Peninsula and south of Bacchus Marsh.

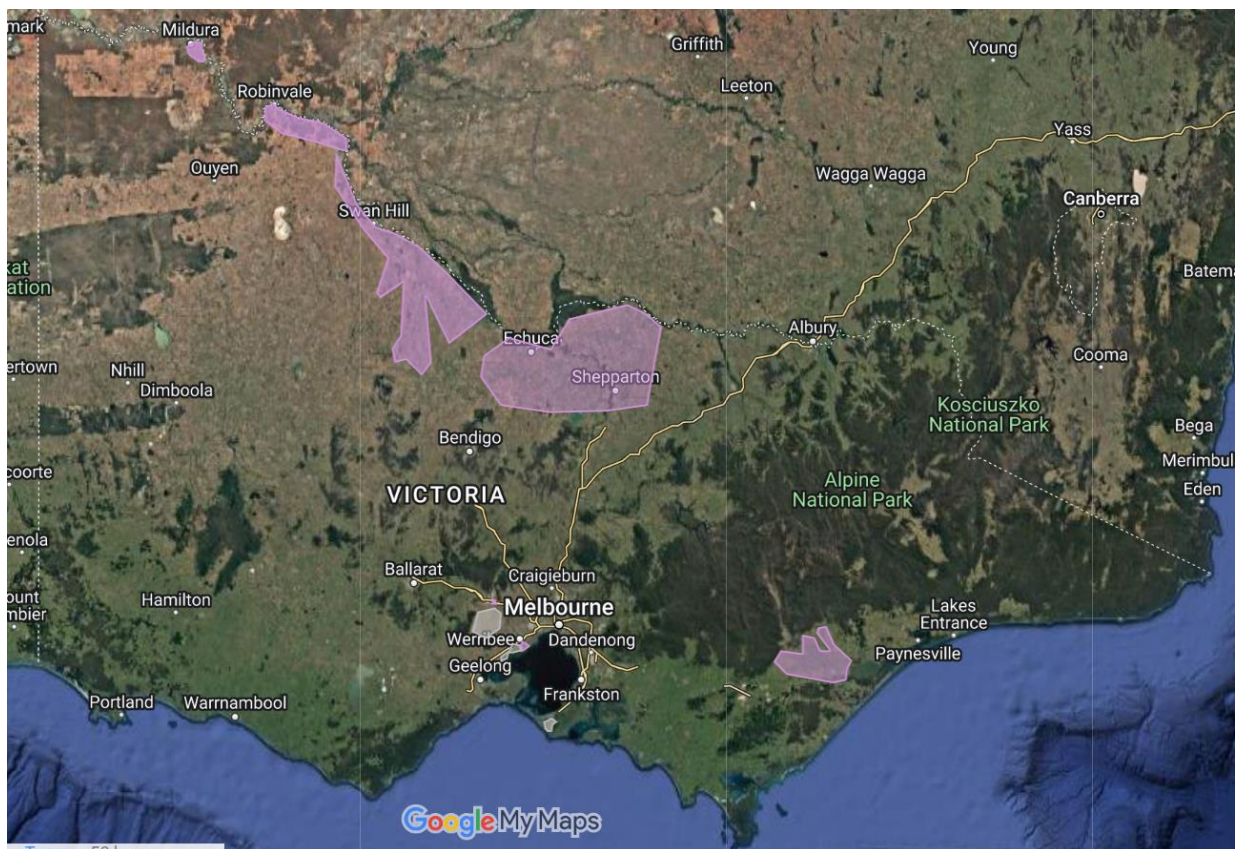
In addition to irrigation districts / scheme it is important to understand that there are significant areas of horticulture and dairy south of the Great Dividing Range that have license to take – that can irrigate from rivers, dams and groundwater.

Significance to coexistence with agriculture.

Avoid Transmission and REZ in irrigation districts.

Avoid Transmission and REZ in irrigated horticulture and dairy area in SW Victoria, South Gippsland and north of Ballarat.

Map of irrigation districts, pipeline schemes and grey water schemes.



Soils

Different soils have different properties which are significant in relation to the crop growth they can support. Agriculture is predominantly a soil-based industry. Farmers spend their lifetimes seeking to improve their soils. Increasing organic matter and carbon. Protecting soil from compaction, waterlogging and heat (fire). Seeking to improve healthy soil biota.

Soils can influence the properties of crops. Potatoes can be grown in a sandy soil, but they cannot be stored for a significant amount of time. Potatoes grown in a ferrosol have properties that allow their storage which is essential for ensuring supply to processors such as McCains to allow for year-round supply of product.

Many horticulture crops like potatoes and tomatoes have a 'rotation period' with crops not being grown in the same paddock every year. Rotation is key to keeping plants disease free. Loss of soils from production may lead to the need to extend the rotation cycle.

Soils can be disturbed with significant impact on the biota they support. Failure to keep soil structure (topsoils, subsoils) and biota can lead to a decrease in the fertility of the soil. The Djaara talk about goldmining creating an 'upside-down country' the impacts of which are being felt 150 years after the land was cleared and the soil structure destroyed. Without careful planning the footings for wind turbines and transmission pylons can repeat the issue of 'upside down country' with soil structure being permanently impacted with the removal of soil for large concrete footings that can never be removed and that change underground movement of water.

Agriculture Victoria has maps of soil types for different commodities.

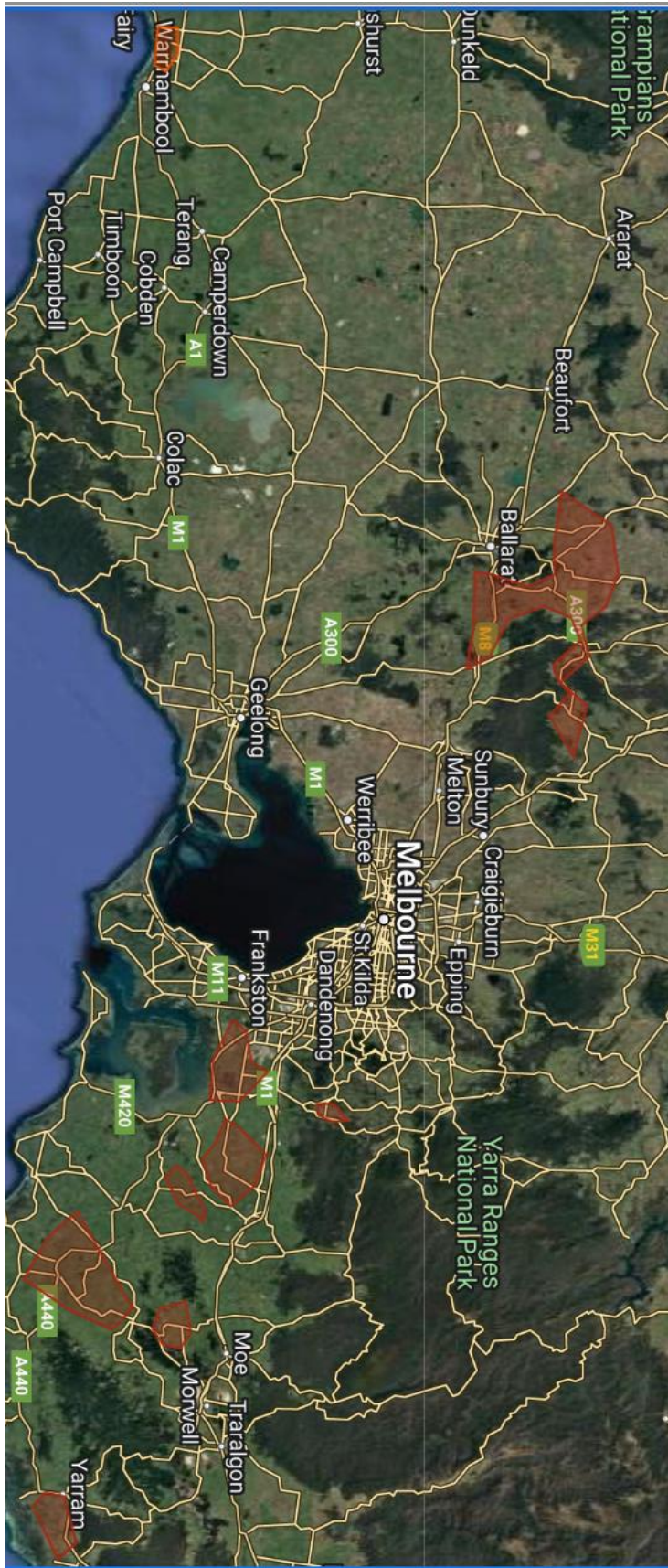
Significance to coexistence with agriculture.

Soil is a key determinant of the type of production that can occur in an area. Dairy production and horticulture are examples of high value production systems that rely on soils.

Avoid Transmission in soils that support horticulture and dairy production.

Ensure renewable energy and transmission is designed to allow co-location with soils that support broadacre cropping and livestock production areas.

Location of volcanic soils that support significant horticulture production.



Dairy

Victoria is the main state for dairy production. It supports regional employment through dairy processing for domestic and international markets. Dairy processors are key employers in many regional areas such as Port Fairy, Koroit, Warrnambool, Cobden, Colac, Kergunyah, Leongatha, Maffra, Melbourne, Timboon, Tongala, Shepparton, Strathmerton and Warragul.

Dairy production requires reliable feed and stock water. Refrigeration and large transport have seen dairy production concentrate in key suitable areas however dairy farms exist outside these areas. Most of the main processing is found in the key areas generally within northern irrigation areas, the Kiewa Valley, Gippsland and South West Victoria.

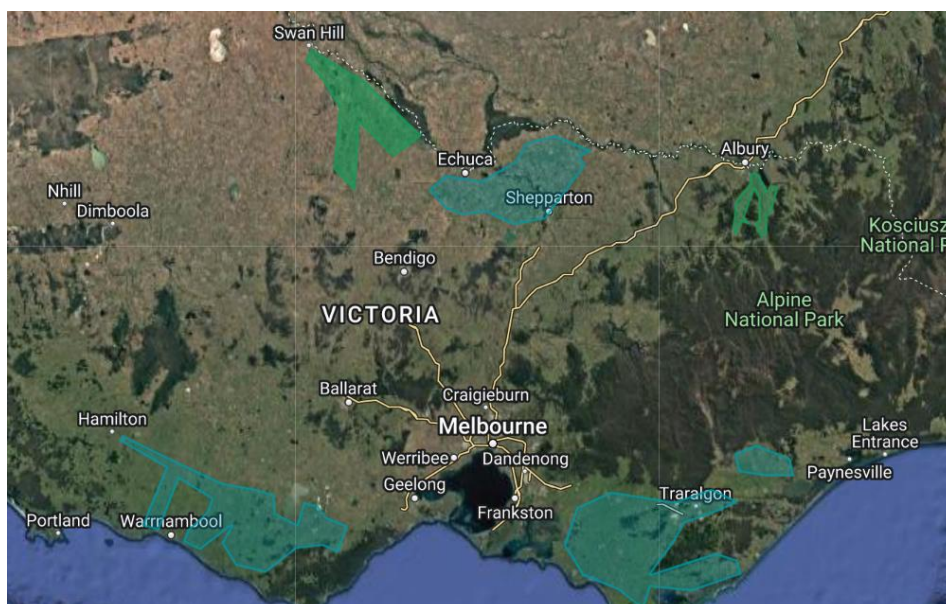
The nature of dairy production systems (animal welfare; daily milking) sees the increased need for accommodation on farm, including for farm workers. Wind energy approvals now include a restriction on housing within 2km of turbines. This is making it difficult to develop on farm housing and is discouraging the purchase of land that is blighted by renewable energy.

Dairy production systems can include irrigated fodder crops and open-air water storages for livestock watering, dairy washdowns and effluent treatment ponds. The location of the dairy itself requires reliable power and b-double access. This can increase potential of constraints with overhead transmission.

Significance to coexistence with agriculture.

Discourage Transmission and REZ in dairy production areas in SW Victoria, Northern Irrigation areas and Gippsland.

Key Dairy areas in Victoria



Horticulture

Horticulture is one of the reasons why Victoria produces 28% of Australia's agricultural products on 3% of its area. Horticulture production is high yield and high value. Land holdings in horticulture areas are significantly smaller than other agricultural commodities.

Horticulture needs soil, water and climate to be suited to the crop. Urban expansion on agricultural areas in Melbourne has seen production of vegetable crops occur in the Lindenow Valley and on irrigatable land in north and west Victoria. There is no longer any 'spare capacity' of land with the right soil, water and climate to replace key vegetable production in red brown ferrosols in Gippsland and the Central Highlands.

There is significant processing industries established in horticulture areas – such as Mars and McCains at Ballarat and SPC and Ardmona in Shepparton.

Horticulture generally requires irrigation systems that are often not compatible with renewable energy generation and transmission.

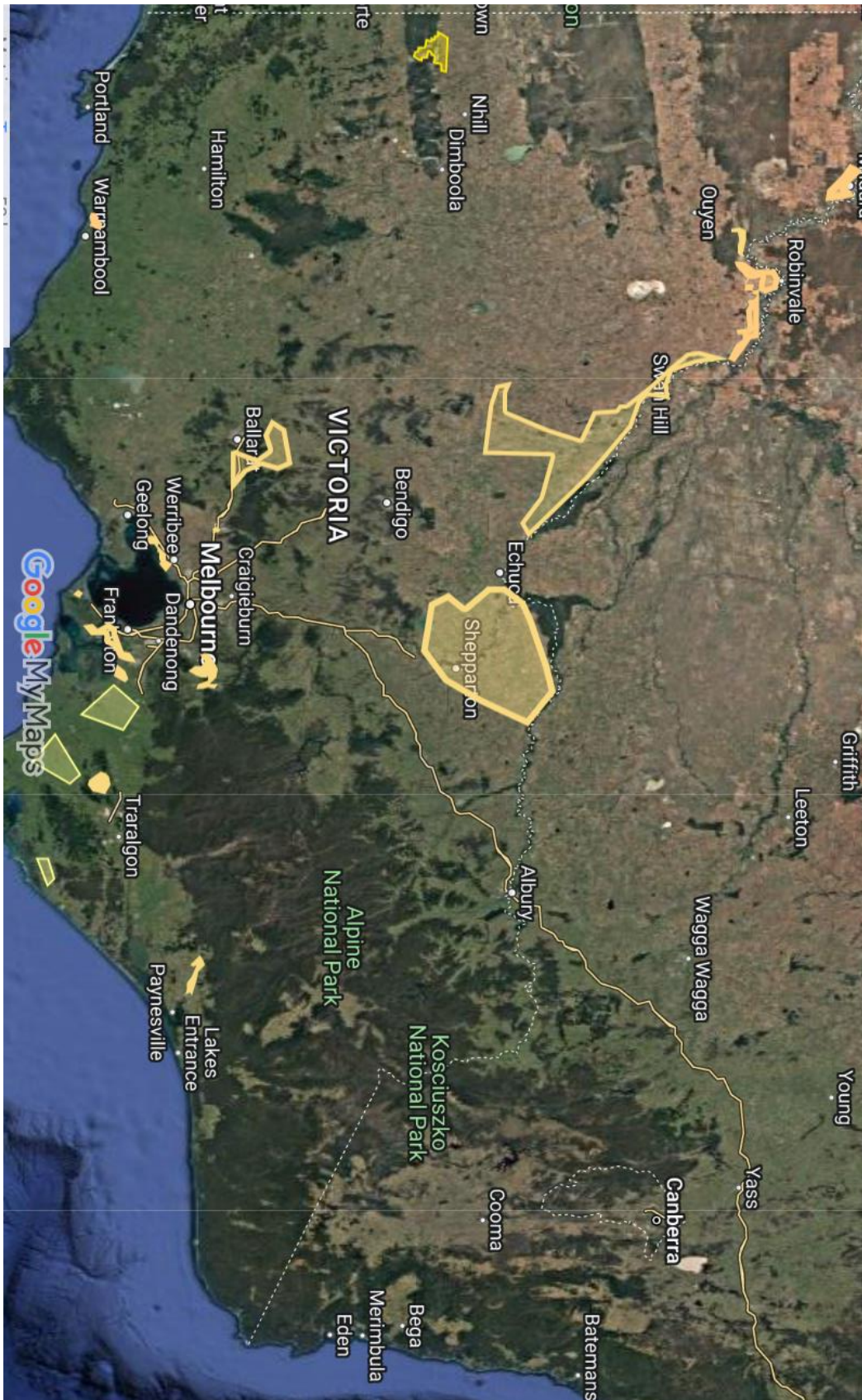
Significance to coexistence with agriculture.

As the turnover per square metre for agricultural production is high it is rare for commercial consent to be gained from farmers. Generation in horticulture areas usually sees the area taken out of production, which generally reduces the EFT employment stemming from the land use.

Avoid Transmission and REZ in horticulture areas.

Ensure renewable energy generation and transmission on horticultural land to be based on co-location- that is no significant loss of production or restriction on farm operations.

Key Horticulture areas



Grains

Grains is the predominant broad acre cropping commodity in Victoria. Grain production can occur on a wider range of soils and does not require irrigation of crops.

As grains production relies on rainfall it is more susceptible to climate impacts – such as drought. Grain production can be impacted by waterlogged soils and late frosts.

Grain production in Victoria is increasingly using large machinery with GPS technology to improve soil health and moisture retention by reducing the need to burn or plough stubble. An accuracy error of even a centimetre can result in the crop being poisoned not the weed.

Significance to coexistence with agriculture.

As grains production is lower output per hectare than some other commodities the likelihood of commercial consent to host wind generation is higher.

Solar panels are unlikely to be compatible with broadacre grains production due to the height of tractors and the width of tools such as a combine harvester or boom spray.

Most tractors used on grains farms exceed 5m in height. This would require the issuance of permits for use of machinery. Permits are month by month. Failure to receive a permit in December or January would lead to the inability harvest a crop and significant losses to the farm business.

Ensure renewable energy generation on land used for grains production is planned based on commercial consent.

Ensure overhead or underground transmission on land used for grains production is designed to allow for the use of machinery over 5m in height, the use of drones and other aerial tools and does not impact on the accuracy of GPS enabled equipment.

Livestock

Livestock production is the predominant broad acre livestock commodity in Victoria. It is also the likely production system on small holdings and rural living properties.

Livestock rely on access to water. Livestock properties are more likely to have water troughs or dams in each fenced area to ensure livestock have access to water.

Livestock producers traditionally have had smaller machinery however the size of machinery is increasing as is its use of GPS signals and data recording (as in grains).

Livestock producers often grow fodder or grain crops for livestock feeding.

Livestock industries support employment in abattoirs. Major livestock processing occurs at:

Altona	Kyneton	Swan hill
Brooklyn	Garfield	Stawell
Carrum	Lance creek	Tallangatta
Cobram	Laverton north	Tatura
Colac	Moe	Tongala
Corio	Nathalia	Wangaratta
Cranbourne	Pakenham	Warrnambool
Dandenong	Poowong	Warragul
Eurobin	Seymour	Wodonga

Significance to coexistence with agriculture.

Livestock production can achieve commercial consent with renewable energy generation and transmission.

As with grains production the ability to achieve co-location not just co-existence requires landholder input based on commercial consent, and infrastructure design and operations to allow for the use of machinery over 5m in height, the use of drones and other aerial tools and does not impact on the accuracy of GPS enabled equipment.

Major Manufacturing Centres

Ballarat	Horsham	Swan Hill
Bendigo	Kaniva	Robinvale
Castlemaine	Kerang	Wagunyah
Cobram	Maryborough	Wangaratta
Colac	Melbourne	Warragul
Donald	Mildura	Warrnambool
Echuca	Geelong	Wodonga
Hamilton	Shepparton	

Attachment 2

Table 1 – indicative co-existence and conflict between wind turbines and agriculture systems.*¹

	Co-existence	Constraints
Grains	<p><i>Physical</i> Payments are made to compensate for loss of productive area from hosting turbines.</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Tower construction damages soil (compaction) Tower footings are permanent impacts on soil and drainage. Towers are a barrier to efficient machinery movements. Roadways and turbine bases sterilise land from production. Spread of weeds or disease from poor biosecurity control.</p> <p><i>Regulatory</i> Towers restrict use of machinery around the towers. Impacts on efficient use of machinery in easements. Impacts use of aerial spraying.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Increased use of fuel and chemicals. Impact of chemicals on grain quality / shipment acceptance.</p> <p><i>OH&S</i> Access to areas within withholding periods. (chemical exposure) Risks from blade strike and debris, including damage to machinery.</p>
Livestock	<p><i>Physical</i> Where payments are made to compensate for loss of productive area from hosting turbines.</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p>	<p><i>Physical</i> Loss of aerial spraying or aerial mustering. Spread of weeds or disease.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Impact of chemicals used on animal health and acceptance of shipment.</p>

¹ **Refer to Attachment one for detail on agriculture land use conflict and attachment two for detail on irrigation. Attachment four gives more detail on physical impacts of wind and transmission.

	<p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p>Loss of production (injury, death, mismothering). <i>Regulatory</i> Towers restrict use of machinery around the towers. Impacts on efficient use of machinery in easements. Impacts use of aerial spraying. Impacts on housing within 2km of turbines. <i>OH&S</i> Use of ‘mustering’ tools such drones or helicopters by energy companies without the understanding of how livestock react can lead to causing risk to livestock and humans. Risks from blade strike and debris, including damage to machinery.</p>
Dairy	<p><i>Physical</i> Likely to require more significant payments to compensate for loss of productive area from hosting turbines. <i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning). <i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Loss of aerial spraying or aerial mustering. Spread of weeds or disease during access. Interference with movement of livestock to dairies. Impact with strip feeding and stock containment areas. <i>Regulatory</i> Towers restrict use of machinery around the towers. Impacts on efficient use of machinery in easements. Impacts use of aerial spraying. Impacts on housing within 2km of turbines. <i>Financial</i> Increase in CIV (basis of farm rates). Impact of chemicals used on animal health and acceptance of shipment. Loss of production (injury, death, mismothering). <i>OH&S</i> Use of ‘mustering’ tools by energy companies causing risk to livestock and humans.</p>

		Risks from blade strike and debris, including damage to machinery.
Horticulture (tall)	<p><i>Physical</i> Rarely built on horticulture areas as footprint unlikely to be fully compensated for (commercial consent). May reduce frost risk (if operating)</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Loss of productive area to turbine bases and access easements. Potential restrictions on use of horticulture structures. Loss of aerial spraying. Spread of weeds or disease during access.</p> <p><i>Regulatory</i> Towers restrict use of machinery around the towers. Impacts on efficient use of machinery in easements. Impacts use of aerial spraying. Impacts on housing within 2km of turbines.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Impact of chemicals used on animal health and acceptance of shipment. Significant reduction in production value due to loss of productive area.</p> <p><i>OH&S</i> Risks from blade strike and debris, including damage to machinery.</p>
Horticulture (small)	<p><i>Physical</i> Rarely built on horticulture areas as footprint unlikely to be fully compensated for (commercial consent).</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Loss of productive area to turbine bases and access easements. Potential restrictions on use of horticulture structures. Loss of aerial spraying. Spread of weeds or disease during access.</p> <p><i>Regulatory</i> Towers restrict use of machinery around the towers. Impacts on efficient use of machinery in easements. Impacts use of aerial spraying. Impacts on housing within 2km of turbines.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates).</p>

		<p>Impact of chemicals used on animal health and acceptance of shipment. Significant reduction in production value due to loss of productive area. <i>OH&S</i> Risks from blade strike and debris, including damage to machinery.</p>
Intensive Animal Industries	<p><i>Physical</i> Location of turbines and access at significant distance from shedding. <i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning). <i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Restrictions on the location of shedding. Spread of weeds or disease during access. <i>Regulatory</i> Biosecurity practices. Impacts on onsite burials post disease or smothering event. Impacts on housing within 2km of turbines. <i>Financial</i> Increase in CIV (basis of farm rates). Significant risk if access leads to mass death event. <i>OH&S</i> Risks from blade strike and debris, including damage to machinery. Risk from zoonotic disease.</p>
irrigation	<p><i>Physical</i> Rarely built on irrigation areas as the footprint and the change in effectiveness of irrigation system as unlikely to be fully compensated for (commercial consent). <i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning). <i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Impacts on the use of centre pivot and lateral irrigation. Impact on drainage. <i>Financial</i> Significant reduction in productivity if unable to irrigate.</p>

Table 2 – indicative co-existence between solar panels and agriculture systems.*²

	Co-existence	Constraints
Grains	<p>The nature of solar installations in Australia are in direct conflict with grain production in Australia.</p> <p><i>Physical</i> Vertical panels at 35m widths and 35m clear zone at top and bottom to allow tractor turning.</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Tractors can be 5.5m high. Boom spray can be 30m wide. Traditional solar arrays would not allow the use of machinery. Spread of weeds or disease during access.</p> <p><i>Regulatory</i> Inability to stubble burn.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Increased costs to manage weed and disease. Loss of income from cropping.</p>
Livestock	<p><i>Physical</i> Sheep. Height of array provides shelter and shade. Cattle. Would require arrays that were wider and more elevated.</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents. Requires enforceability of commercial contract conditions (siting, decommissioning).</p>	<p><i>Physical</i> Sheep can become caught in solar panels and supports leading to injury. Cattle can cause damage to systems from rubbing / pushing against poles. Potential for injury to livestock from corners or sharp edges of installations. Inability to use boom sprays or aerial spraying to manage weeds.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Increased costs to manage weed and disease.</p> <p><i>OH&S</i> Increased risk in mustering (obstacles). Risks from personnel being in paddocks within a chemical withholding period.</p>

² *Refer to Attachment one for detail on agriculture land use conflict and attachment two for detail on irrigation. Attachment four gives more detail on physical impacts of wind and transmission.

<p>Dairy</p>	<p><i>Physical</i> Unlikely to co-exist in traditional form due to the generic ‘cattle’ issues and the daily movement of cattle. If modified to create rooftop solar on dairies and containment yard shedding.</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p><i>Physical</i> Cattle can cause damage to systems from rubbing / pushing against poles. Potential for injury to livestock from corners or sharp edges of installations. Inability to use boom sprays or aerial spraying to manage weeds.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Increased costs to manage weed and disease. Some weeds cause bloating in cattle that can lead to mortality.</p> <p><i>OH&S</i> Increased risk in mustering (obstacles). Risks from personnel being in paddocks within a chemical withholding period. As cows are milked daily any residue from chemicals applied while livestock are active in the withholding period can enter the milk products.</p>
<p>Horticulture (tall)</p>	<p><i>Physical</i> Agrivoltaics – that is array is designed to allow tractor operations, such as roofing on grow sheds or functioning as horticulture structures providing frost and hail protection. Hail protection.</p> <p><i>Regulatory</i> Co-existence requires regulation that ensures enforceability of commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i> Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p> <p><i>OH&S</i> Manual harvesting – risks of injury from panels</p>	<p><i>Physical</i> Restricts growth of vegetation. Restricts use of tractors for fertilising, spraying and harvesting. Reduced effectiveness of frost fans. restricts use of ladders for harvest. Cannot use netting structures (protect from loss from birds and bats.) Loss of productive land from footings. Potential microclimate impacts.</p> <p><i>Regulatory</i> Inability to stubble burn.</p> <p><i>Financial</i> Increase in CIV (basis of farm rates). Increased costs to manage weed and disease. Loss of income from cropping.</p>
<p>Horticulture (small)</p>	<p><i>Physical</i> Agrivoltaics – when designed to allow tractor operations only. Some protection from frost.</p>	<p><i>Physical</i> Restricts growth of vegetation. Restricts use of tractors for fertilising, spraying and harvesting.</p>

	<p><i>Regulatory</i> Needs regulatory standards on disclosure of information to allow proper consideration of commercial consent. Requires enforceability of commercial contract conditions (siting, decommissioning).</p>	<p>Reduced effectiveness of frost fans. Cannot use netting structures (protect from loss from birds and bats.) Loss of productive land from footings. Potential microclimate impacts. <i>Regulatory</i> Inability to stubble burn. <i>Financial</i> Increase in CIV (basis of farm rates). Increased costs to manage weed and disease. Loss of income from cropping. <i>OH&S</i> Injury from impact with solar panels when tending crops.</p>
<p>Intensive Animal Industries</p>	<p><i>Physical</i> Agrivoltaics – Rooftop solar for shed based industries. Shelter for range chickens. <i>Regulatory</i> Needs regulatory standards on disclosure of information to allow proper consideration of commercial consent. Requires enforceability of commercial contract conditions (siting, decommissioning).</p>	<p><i>Physical</i> Pigs are likely to interact with the structures – potential for injury to livestock and damage to infrastructure. Heightened risk and consequence from poor biosecurity management. <i>Regulatory</i> Biosecurity regimes may be compromised by land access. Biosecurity practices. Impacts on onsite burials post disease or smothering event. <i>Financial</i> Increase in CIV (basis of farm rates). Significant risk if access leads to mass death event. <i>OH&S</i> Biosecurity – poultry and pigs are highly zoonotic species with additional biosecurity requirements for animal welfare and disease risk.</p>
<p>irrigation</p>	<p><i>Physical</i> Rarely built on irrigation areas as the footprint and the change in effectiveness of irrigation system (sensitive to minor level change) as unlikely to be fully compensated for (commercial consent). <i>Regulatory</i> Co-existence requires regulation that ensures enforceability of</p>	<p><i>Physical</i> Can impact on co-existence where irrigation is used due to changes to sub surface drainage or level change. Unlikely to allow the use of efficient irrigation systems such as laterals or centre pivot. <i>Regulatory</i> Potential inability to use flood irrigation or overland drainage. <i>Financial</i></p>

	<p>commercial contract conditions (siting, decommissioning).</p> <p><i>Financial</i></p> <p>Co-existence requires regulation that ensures hosts are provided information on all potential constraints on their operations for consideration of commercial consents.</p>	<p>Significant reduction in productivity if unable to irrigate.</p> <p><i>OH&S</i></p> <p>Risk from presence of electricity and water.</p>
--	---	--

Table3 – indicative conflict between transmission and agriculture systems.*³

	Conflict / constraints
Grains	<p><i>Physical</i></p> <p>Tower construction damages soil (compaction) Concrete construction trucks compact soil. Reduces yield.</p> <ul style="list-style-type: none"> • Farmers use tramlines to reduce impact on soils. Changing operations to avoid having empty chaser bins under the lines etc increases costs and soil compaction and reduces yields. <p>Tower footings are permanent impacts on soil and drainage.</p> <p>Towers are a barrier to efficient machinery movements. This increases inputs and generally lowers productivity.</p> <ul style="list-style-type: none"> • Difficult to use wide machinery such as boom sprays. These can be damaged if they impact pylons. Concern with spray arm raising if one side impacts the ground. <p>Wires (interference) can impact accuracy of Smart Agtech.</p> <p>Loss of crop from access (not on tramlines)</p> <p><i>Regulatory</i></p> <p>Tower and wires restrict use of machinery including tractors and associated equipment, aerial spraying, drones, stubble burning etc.</p> <ul style="list-style-type: none"> • Machinery over 5m high will require permits and spotters. This may be denied in hot weather (summer) impacting on harvest. Spotters add significant cost and will be difficult to source during harvest with existing labour shortages. Ausnet has reduced machinery height to 3m which will impact most farm machinery rather than maintain lines to safety standards. • Aerial spraying by planes or drones is not allowed near transmission lines. • Straight runs required for efficient use of fuel and chemicals. Changing operations to avoid having empty chaser bins under the lines etc increases costs and reduces yields. • Without GPS increases need to stubble burn. Cannot stubble burn near transmission lines.

³ *Refer to Attachment one for detail on agriculture land use conflict and attachment two for detail on irrigation. Attachment four gives more detail on physical impacts of wind and transmission.

	<ul style="list-style-type: none"> • Biosecurity (including chemical use). Concern regarding introduction of weeds and pests that will be harder to control due to restriction on tools. TNSPs use chemicals on the site that can impact on crop health and vendor declarations. <p><i>Financial</i></p> <p>Increase in CIV (basis of farm rates).</p> <p>Use of chemicals impacting on crop health or ability to sell crop.</p> <ul style="list-style-type: none"> • No till requires accurate GPS – even a few cm can mean the difference between killing the weed or the crop. <p>Reduced production / profitability</p> <ul style="list-style-type: none"> • Changing safety regulations are reducing area able to be farmed and therefore the earning capacity of the business. <p>Increased use of fuel and chemicals.</p> <ul style="list-style-type: none"> • The need to fence off easements (OH&S) reduces the efficiency of farming (grains producers remove fencing to have long runs) • If cannot use long boom sprays or fill chaser bins that will impact on emissions intensity and profitability. • Loss of <p><i>OH&S</i></p> <ul style="list-style-type: none"> • Many producers believe they will need to fence of the easement to manage safety risks from transmission lines and ESV and TNSP restrictions. • Chaser bins and boom spray wings can have varying heights – unsure about the ability to use.
Livestock	<p><i>Physical</i></p> <ul style="list-style-type: none"> • Construction can impact pasture and soil health. • Decommissioning of dams and stock watering in easement. • Impact on location / size of dams for stock watering. • Impact on cattle movements from access and use of drones / planes for inspection (tools used to muster – therefore can drive livestock into danger) • Impact of cattle movement from structures and fencing • Interaction between cattle and infrastructure, especially when spooked by aerial or ground inspections. • Introduction of new weeds or disease from access practices. • Impact on ability to plant trees for shelter and windbreaks. <p><i>Regulatory</i></p> <p>Limits use of aerial spraying and aerial mustering.</p> <p><i>Financial</i></p> <ul style="list-style-type: none"> • Use of chemicals impacting on animal welfare or ability to sell livestock. • Mismothering and animal welfare considerations leading to reduced number of livestock and condition of livestock leading to decreased returns. • Increased costs to manage weeds, • Additional costs of fencing (earthing) <p><i>OH&S</i></p> <ul style="list-style-type: none"> • Withholding periods of chemicals. • Safety risks from interactions with livestock from access.
Dairy	<p><i>Physical</i></p> <ul style="list-style-type: none"> • Construction can impact pasture and soil health. • Decommissioning of dams, effluent treatment ponds and stock watering in easement.

	<ul style="list-style-type: none"> • Impact on location / size of dams for stock watering and effluent treatment systems. • Impact on cattle movements from access and use of drones / planes for inspection (tools used to muster – therefore can drive livestock into danger) • Impact of cattle movement from structures and fencing • Interaction between cattle and infrastructure, especially when spooked by aerial or ground inspections. • Introduction of new weeds or disease from access practices. • Impact on ability to plant trees for shelter and windbreaks. • Stock move daily for milking. Increases risk from chemical use, physical access and biosecurity. • Will lead to creation of smaller paddocks when easements are fenced off leading to increased concentration of movements around fences – compacting soils and increasing OH&S risks. • Impact on laser graded or irrigated pasture. • Impact on siting of dairy and location of silage storage. • Concerns over loss of data on tracking collars. <p><i>Regulatory</i> Limits use of aerial spraying and aerial mustering. May restrict B double access to dairy.</p> <p><i>Financial</i></p> <ul style="list-style-type: none"> • Use of chemicals impacting on animal welfare or ability to sell milk products. • Mismothering and animal welfare considerations leading to reduced number of livestock and condition of livestock leading to decreased returns. • Increased costs to manage weeds, • Additional costs of fencing (earthing) and automated access gates. • Increased costs to store water for dairy washdown and for effluent treatment systems. • New access for dairy or permit processes. <p><i>OH&S</i></p> <ul style="list-style-type: none"> • Withholding periods of chemicals. • Safety risks from interactions with livestock from access.
Horticulture (tall)	<p><i>Physical</i></p> <ul style="list-style-type: none"> • Tower construction damages soil (compaction) Concrete construction trucks compact soil. Reduces yield. • Tower footings are permanent impacts on soil and drainage. • Towers are a barrier to efficient machinery movements. This increases inputs and generally lowers productivity. • Wires (interference) can impact accuracy of Smart Agtech. • Decommissioning of dams. • Impact on location / size of dams. • Introduction of new weeds or disease from access practices. • Impact on laser graded grow areas. • Disruption of rows impacting efficiency and increasing exposure to wind. • Changes to the type or efficiency of irrigation used • Impact on production of high value crops due to restrictions on the easement. • Tall crops / trees and horticulture structures prohibited. • Inability to use aerial tools and drones • Inability to use igloos and other structures in the vicinity of the easement

	<p><i>Regulatory</i></p> <p>Tower and wires restrict use of machinery including tractors and associated equipment, aerial spraying, drones, burning of leaf matter etc.</p> <ul style="list-style-type: none"> • Machinery over 5m high (including cherry pickers) will require permits and spotters. This may be denied in hot weather (summer) impacting on harvest. Spotters add significant cost and will be difficult to source during harvest with existing labour shortages. • Aerial spraying by planes or drones is not allowed near transmission lines. • Straight runs required for efficient use of fuel and chemicals. Runs will be disrupted by the easement and may need to divert around the easement when using taller machinery or chaser bins. Increases costs and reduces yields. • Biosecurity (including chemical use). Concern regarding introduction of weeds and pests that will be harder to control due to restriction on tools. TNSPs use chemicals on the site that can impact on crop health and vendor declarations. • Biosecurity (including chemical use) potential for significant impact on soils / productivity <p><i>Financial</i></p> <p>Increase in CIV (basis of farm rates).</p> <p>Use of chemicals impacting on crop health or ability to sell crop.</p> <p>Reduced production / profitability, including increased use of fuel and chemicals.</p> <p>Changing safety regulations are reducing area able to be farmed and therefore the earning capacity of the business.</p> <ul style="list-style-type: none"> • The need to fence off easements (OH&S) reduces the efficiency of farming • If cannot use elevated pickers or fill chaser bins that will impact on emissions intensity and profitability. <p><i>OH&S</i></p> <ul style="list-style-type: none"> • Many producers believe they will need to fence of the easement to manage safety risks from transmission lines and ESV and TNSP restrictions. • Increased compliance cost – harvesting fruit and nuts at a height.
<p>Horticulture (small)</p>	<p><i>Physical</i></p> <ul style="list-style-type: none"> • Tower construction damages soil (compaction) Concrete construction trucks compact soil. Reduces yield. • Tower footings are permanent impacts on soil and drainage. • Towers are a barrier to efficient machinery movements. This increases inputs and generally lowers productivity. • Wires (interference) can impact accuracy of Smart Agtech. • Decommissioning of dams. • Impact on location / size of dams. • Introduction of new weeds or disease from access practices. • Impact on laser graded grow areas. • Disruption of rows impacting efficiency and increasing exposure to wind. • Changes to the type or efficiency of irrigation used • Impact on production of high value crops due to restrictions on the easement. • Inability to use aerial tools and drones • Inability to use igloos and other structures in the vicinity of the easement <p><i>Regulatory</i></p>

	<p>Tower and wires restrict use of machinery including tractors and associated equipment, aerial spraying, drones, burning of leaf matter etc.</p> <ul style="list-style-type: none"> • Aerial spraying by planes or drones is not allowed near transmission lines. • Straight runs required for efficient use of fuel and chemicals. Runs will be disrupted by the easement and may need to divert around the easement when using taller machinery or chaser bins. Increases costs and reduces yields. • Biosecurity (including chemical use). Concern regarding introduction of weeds and pests that will be harder to control due to restriction on tools. TNSPs use chemicals on the site that can impact on crop health and vendor declarations. • Biosecurity (including chemical use) potential for significant impact on soils / productivity <p><i>Financial</i></p> <p>Increase in CIV (basis of farm rates).</p> <p>Use of chemicals impacting on crop health or ability to sell crop.</p> <p>Reduced production / profitability, including increased use of fuel and chemicals.</p> <p>Changing safety regulations are reducing area able to be farmed and therefore the earning capacity of the business.</p> <ul style="list-style-type: none"> • The need to fence off easements (OH&S) reduces the efficiency of farming • If cannot use elevated pickers or fill chaser bins that will impact on emissions intensity and profitability. <p><i>OH&S</i></p> <ul style="list-style-type: none"> • Many producers believe they will need to fence of the easement to manage safety risks from transmission lines and ESV and TNSP restrictions.
<p>Intensive Animal Industries</p>	<p><i>Physical</i></p> <p>Restriction of shedding in the vicinity of the easement.</p> <p>Effluent ponds and treatment systems disallowed near easement.</p> <p>Impact on location / size of dams for stock watering, washdowns.</p> <p><i>Regulatory</i></p> <p>Pigs and poultry have specific biosecurity arrangement and the need for specific washdowns and hygiene practices.</p> <p>Impact on ability to bury livestock on site (emergency response)</p> <p><i>Financial</i></p> <ul style="list-style-type: none"> • Shedding. Potential loss if access led to mass mortalities. <p>Increase in CIV (basis of farm rates).</p> <p>Use of chemicals impacting on free range livestock.</p>