SUBMISSION

DRAFT - Solar Energy Facilities - Design and Development Guidelines

March 2019
EXECUTIVE SUMMARY

Victoria’s agricultural production accounts for over $13 billion of Victoria’s economy and over 25 per cent of the State’s exports per annum. Victoria’s farmers produce high quality food and fibre, produced to high standards of safety, with little taxpayer support, and to some of the strictest environmental and highest animal welfare controls in the world.

The Victorian Farmers Federation (VFF) submission to the draft Solar Guidelines is guided by the policy position to ensure that agricultural land is protected and farmers are given the conditions they need to grow the State’s economy.

This submission will outline two key elements to ensuring that planning processes can properly assess proposals in agricultural areas. These elements are:

- The need for a state-wide, strategic plan for all renewable energy facilities; and
- A comprehensive assessment of the impact of the planning system on agriculture

This is reflected by the following call for action by the Government.

The VFF calls for:

1. The Government to revise the Planning Policy Framework to include agriculture content from Regional Growth Plans, in addition to a new clause to recognise agricultural land of state and regional significance.
2. A state-wide, strategic plan for renewable energy facilities that considers a range of issues as outlined.
3. The Government to ensure consideration of renewable energy facilities meet the Planning Policy Framework (PPF) agriculture content and principles.
4. The Victorian Chief Scientist be funded to undertake scientific research into:
   - Any impacts of renewable energy production technology on agricultural commodity production and how this can be ameliorated; and
   - Any impacts of renewable energy production technology on human health and amenity and how this can be ameliorated.
5. The Government to ensure there are processes in place to consider rehabilitation and return of land to agricultural production.
6. The Government to undertake a comprehensive assessment of the impact of the planning system on agriculture and prioritise the review of scheme content applying to farming land against SMART Planning principles.
INTRODUCTION

The Victorian Farmers Federation
Victoria’s agricultural production accounts for over $13 billion of Victoria’s economy and over 25 per cent of the State’s exports per annum. Victoria’s farmers produce high quality food and fibre, produced to high standards of safety, with little taxpayer support, and to some of the strictest environmental and highest animal welfare controls in the world.

The Victorian Farmers Federation (VFF) represents a farming community which creates a profitable, sustainable and socially responsible agriculture sector connecting with consumers. We have a proud history representing Victoria’s farm businesses since 1979 – primarily family farms that produce the eggs, grain, fruit and vegetables, meat, and milk that help to feed Victoria’s six million people, and the bigger global community, every day.

The VFF consists of commodity groups: dairy (United Dairyfarmers of Victoria), grains, horticulture (including Flowers Victoria), intensives (chicken meat, eggs and pigs), and livestock – and expert committees representing; water, land management, agricultural and veterinarian chemicals, farm business and rural development, and workplace relations.

Our purpose is to make Victorian farmer’s lives better; enhancing Victoria’s future. Our mission is to ensure a community of farmers creating a profitable, sustainable and socially responsible agricultural industry connecting with all Victorians.
Our place in Victoria

What we do

- Victoria’s 20,775 farms cover 10.6 million hectares
- We are 24.2% of Australian farmers
- 91% family operated, with only 2% foreign owned
- We employ 7,800 people mostly in regional areas
- $4739 of food consumed each year by every Australian
- As a net exporter we have long term food surity
- Our annual production is $33.16 billion, 3.5% of Victoria’s economy
- 70.6% of Victoria’s exports are agricultural product valued at $11.9 billion

How we do it

- Farmers invest $80 million in R&D
- Every R&D $1 converts to $12 in farmer generated impact
- 2.7% productivity growth through innovative efficiency gains
- Farmers receive less than 1.5% in government support
- 65% reduction in greenhouse gas emissions between 1990-2016
- Water consumption reduced by 7% from 2014-2015
- Land conservation has increased to 18% of total land massa.
- Farmers spend $20,000 annually on feral animals and pest weeds
- 3.5 million beef cattle
- 140 million chickens
- 1.1 million dairy cows producing 6.186 billion litres of milk
- 65,992 sows
- 13.1 million breeding ewes and a fleece clip of 65,100 tonnes
- 6.5 million tonnes of grain
- $2.35 billion in horticultural production
ADDRESSING THE QUESTIONS

The main body of the submission will address the key areas which the VFF identify for review or improvement.

Do the draft Guidelines provide relevant and helpful guidance for siting, design and development of solar energy facilities?

- The draft guidelines provide more guidance on siting, design and development of solar energy facilities than currently exist.
- There are many opportunities to improve these aspects, as outlined in the body of this submission.
- 7.3 should be deleted and replaced with a meaningful consideration of the ‘in conjunction with’ test as outlined in the submission.

Do the draft Guidelines include sufficient advice on approval requirements for solar energy facilities?

- The draft guidelines do not currently provide sufficient advice on approval requirements for solar energy facilities.
- This submission outlines the range of actions to be undertaken to ensure the draft guidelines provide sufficient guidance on application materials and decision guidelines to provide sufficient advice on approvals requirements.

Do the draft Guidelines include enough information on best practice solar energy facility siting, design and operational matters?

- Significant work is required to ensure agriculture and community considerations are included in the best practice siting, design and operational elements and that many aspects covered should have minimum requirements in the relevant regulatory frameworks.

Do the Guidelines adequately deal with agricultural land including areas serviced by modernised irrigation infrastructure when considering the location of solar energy facilities?

- No. The body of this submission addresses opportunities to improve agricultural land considerations.

Are the Guidelines helpful in managing the potential landscape impacts of solar energy facilities?

- The landscape values and visual amenity impacts provide a basic list of considerations but it is unclear as to the viewpoint.
- For instance a flat site that is not visible from surrounding areas should not necessarily be a landscape consideration – but an operational consideration. There have been occasions where council’s attempt to modify agricultural practices – such as seeking to ban horticultural structures – on the basis of visual impact on the tourism industry.
- This consideration would be valid if a solar array was located on low lying land with adjacent land at an elevation where glare and glint from the array may impact on beneficial use or road safety.
- Reference to screening should not purely be a landscape issue – but should be a consideration in relation to reduction of potential microclimate impact or glare.
Are the Guidelines helpful and clear on potential glint/glare, screening or general visual impacts of solar energy facilities?

- The entirety of Chapter 7 should not be located within ‘voluntary best practice’ but included in application requirement and decision guidance sections. Agriculture should be central to the considerations.

Off-site impacts Do the Guidelines adequately address potential off-site impacts of solar energy facilities?

- The entirety of Chapter 7 should not be located within ‘voluntary best practice’ but included in application requirement and decision guidance sections. Agriculture should be central to the considerations. 7.2.3 and 7.3 should be deleted in their entirety and replaced with precautionary material and discussion of US studies in relation to potential heat impacts as well as creating detailed material / tests on how to assess in conjunction with / secondary to agriculture considerations.
OUR POSITION

Overview
To ensure agricultural land is protected, we need a state-wide, strategic plan for all renewable energy facilities. The plan should consider how these industrial sites will impact agricultural land, community infrastructure and services, and the flow-on effects to neighbouring properties.

Agriculture is a sustainable industry that relies on land which is a finite resource. We want to maximise agriculture production and also see renewal energy grow. To achieve this requires careful planning to ensure the two can coexist without conflict, through the provision of clear guidelines.

Guidelines are needed to ensure that planning processes can properly assess these proposals. Interim modifications to the Guidelines and the Victorian Planning Provisions (VPPs) are required to ensure proper consideration of impact on agriculture.

Urban expansion and non-agricultural uses such as large scale solar in the farming zone reduce the land available to agriculture. Population growth increases the demand for food and fibre. This increased demand from a reducing footprint cannot continue unchecked as industry needs certainty to invest in intensification of production from a planning system that effectively protects the land resource, especially strategic agricultural land.

Each Regional Growth Plan (RGP) has identified the role of agriculture. This provides the ability for the draft solar guidelines to better reflect SMART Planning principles and clearly reference approval pathways for renewable energy, such as solar, related to the impact on and strategic significance of agriculture.

The VFF calls on the Government to revise the Planning Policy Framework to include agriculture content from RGPs, in addition to a new clause to recognise agricultural land of state and regional significance.

VFF Renewable Energy Policy Position
The VFF position on Renewable Energy relates to the planning considerations as well as the need for a whole-of-government policy to guide all aspects of renewable energy and energy infrastructure in Victoria.

The VFF’s policy position will be referenced in this submission in relation to the operation of the draft Solar Energy Facilities - Design and Development Guidelines (Solar Guidelines) and potential refinements to the VPPs to provide greater clarity to the sector and address SMART Planning Principles.
VFF Renewable Energy Policy Position

- Farmers should be supported to adopt farm scale renewable energy.
- There should be a state-wide strategic plan for renewable energy facilities that considers issues relating to:
  - Scale (refer to table)
  - Location
  - Identification of strategic agricultural land
  - Impact on agricultural use including on commodities that require a threshold of productivity in a region
  - Impact on community and physical infrastructure and processors
  - Application Buffer and setbacks required to mitigate off farm impacts
  - Grid access including powerline connections
  - Environmental and agricultural Impact studies
  - Funding and responsibility for rehabilitation and restoration of sites and end of life (similar to Mineral Resources(Sustainable Development)Act)
  - Access (including easements on property and distance / type of transmission infrastructure to connect to main transmission line)
  - Opportunity costs and secondary industry impacts
  - Community benefit, information and assistance
- The development or review of a state-wide strategic plan for renewable energy should be consultative in nature and overseen by an independent advisory committee.
- There should be an ongoing research program into:
  - Any impacts of renewable energy production technology on agricultural commodity production and how this can be ameliorated;
  - Any impacts of renewable energy production technology on human health and amenity and how this can be ameliorated;
- The precautionary principle should be applied to consideration of applications where a peer reviewed science program relevant to the concern or commodity has not been undertaken in Australian conditions.
- Specific planning guidelines should be developed to guide each form of renewable energy and these should be reviewed as technology and / or impacts change.
- Planning guidelines should recognise that issues are likely to arise with changes of land use. Proper consideration should be given to whether the renewable energy facility may affect the residents and farming operations and whether these impacts can be mitigated.
- In considering economic output the agricultural productivity should be measured with a similar level of investment to the agribusiness.
- Renewable energy generation should be a section 2 use in farming zones with a condition that it is to be in conjunction with and ancillary to the use of the land for agriculture.
- Compliance with the state-wide strategic plan should be a relevant decision guideline for applications.
- There should be regulatory systems relating to responsibility for rehabilitation to be modelled on the Mineral Resources (Sustainable Development) Act;
- The state, regional and local policy sections of the planning scheme must be revised to strengthen statements on the economic value of agricultural land.
• For the purposes of ‘scale’ in regard to renewable energy the following principles and definitions be applied.

<table>
<thead>
<tr>
<th>Level/scale of energy production</th>
<th>Planning/approval process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - Farm scale</td>
<td>Planning requirement: Section 1 where conditions met. Conditions relate to small scale, setbacks to other properties, minimal or no impact on agricultural production. Example – solar panels on shed roofing; domestic wind energy.</td>
</tr>
<tr>
<td>Level 2 - In conjunction with agriculture</td>
<td>Planning requirement: Section 2 – relevant decision/planning guidelines – e.g. Solar Energy Facilities Design &amp; Development Guidelines. Must be secondary to agricultural production and meet setbacks to minimise amenity or off site agricultural impact. Examples: installation of solar panels on broiler or piggery shedding and in surrounding buffer areas; wind turbines in conjunction with grazing and cropping; 200 hectare solar facility within a 800 hectare farm.</td>
</tr>
<tr>
<td>Level 3 - Large scale solar or main use</td>
<td>Planning Requirement: Prohibited in areas identified as being of regional or state agriculture significance. Section 2 - relevant decision/planning guidelines – e.g. Solar energy facilities design and development guidelines. Examples: A 400 hectare solar facility on a 410 hectare farm; a 200 hectare solar facility in the Macalister Irrigation district.</td>
</tr>
</tbody>
</table>

**Call for a state-wide strategy**

To ensure agricultural land is protected, we need a state-wide, strategic plan for all renewable energy facilities. The plan should consider how these industrial sites will impact agricultural land, community infrastructure and services, and the flow-on effects to neighbouring properties.

Without a state-wide strategy for renewable energy there is increased pressure on the planning system not only to determine competing priorities but to address utility connections which currently fall through the gaps.

Issues of concern to members that need to be addressed prior to planning approval being granted include:

• Location / route and design of new transmission lines in relation to oversize machinery operations; fire risk; land access and biosecurity;
• transmission line – compliance with Victorian Bushfire Royal Commission;
• opportunities to upgrade wider transmission network (replace SWER lines);
• approved rehabilitation plans (ensure process similar to Mineral Resources (Sustainable Development) Act).

In addition to ensuring consideration of these processes the solar guidelines should be flexible enough to reference strategic guidance that may be produced in the future. This may mean a system similar in nature to the CHMP requirement under the Aboriginal Heritage Act – that is a permit cannot be granted until other processes have been undertaken.
DISCUSSION

Consideration of scale
Other jurisdictions solar guidelines have considerations regarding the scale of the solar facility. Scale is also an issue in relation to the wind energy guidelines and processes. Care needs to be given to ensuring renewable energy guidelines focus on measuring the impact. For instance with wind energy the larger the turbine height or blade length the greater the distance for off-site impact.

The VFF believes that scale is a relevant consideration to renewable energy in relation to both co-existence with agriculture and potential off site impacts. A three tiered process should be applied to renewable energy facilities in farming zones. The tiers are based on a combination of risk of off-site impacts and relationship to the primary purpose of the zone.

While the detail of ‘scale’ may change between generation technologies we have formulated a three tier scale that responds to both the likelihood of an off-site impact and the impact on agriculture.

- Tier 1. ‘Domestic’ or on farm use, should not be subject to the need for a planning permit. There could be a condition linking to particular provisions similar to that in sustainable animal industries, if there was a need to consider setbacks. In the case of solar this may mean panels on existing farm sheds / dwellings.

- Tier 2. ‘In conjunction with’ agriculture. Farming remains the primary land use with renewable energy generated for sale to the grid. For example solar panels on the roof of broiler sheds and utilisation of part of the buffers to these sheds for generation. This type of development would require a planning permit under the Solar Guidelines. These facilities could locate in state or regionally significant agricultural areas where they are clearly in conjunction with and secondary to the use of the land for agriculture. Many existing wind turbines on a broad acre property would be within this category.

- Tier 3. Renewable energy facilities that have a very large physical footprint and/or are the predominant use of the land. For instance, a 600 hectare solar facility on a 700 hectare farm with grazing incidental to the use to manage fire risk and weeds. These facilities should not be located in agricultural areas that have been identified as being of state or regional significance. As an interim step the Regional Growth Plans (RGPs) should be used to designate land in these categories.

Agricultural considerations
It is often challenging for planners to grapple with judgements in relation to agriculture. The Farming Zone is the zone most commonly applied (land area) to private land in Victoria. Despite policy regarding supporting, promoting and protecting agriculture there is limited guidance to planners about how to make these judgements.

This lack of guidance has led to confusion in the past – for example whether a stock containment yard made a grazing practice intensive. The Sustainable Animal Industries Advisory Committee process allowed strategic and technical consideration of options that were then translated into scheme controls and guidelines. The planning system would benefit from a similar process of
technical and strategic consideration of renewable energy that considers wider impact, such as on agriculture and processing industries.

With no state-wide vision or comprehensive PPF content the current draft Solar Guidelines are too high level and theoretical in relation to agriculture. The content needs to be redrafted for clarity of interpretation and consistency with agricultural policy.

Until a wider review of agriculture and renewable energy content in the VPPs and related guidance material is prepared the draft guidelines must refer to the RGP content and this content must be referenced in the PPF.

To assist, VFF will provide an example of how the PPF could be amended to include RGP content. This would assist interpretation of the Solar Guideline content in relation to agricultural land or land uses which are important to the regional economy, providing greater clarity to proponents, planners and community.

The PPF changes are needed as since the introduction of the VPPs in the mid-1990s agriculture is no longer seen as an economic driver to the regional economy. The ‘economic development’ content – such as Industry – has had stronger statements regarding the need to protect ‘industry’ from ‘encroachment’ or loss. The VFF has long argued that agriculture should be nested under ‘economic development’ not ‘natural resource management’ and the content strengthened accordingly. This change would be consistent with Government Strategy and the RGPs.

The most recent structural change which created the PPF from the SPPF includes a clause outlining State Significant Industry. This clause has been used as a basis to suggest a new clause 14.01-3 State and Regionally Significant Agricultural Areas.

Undertaking these changes will provide clarity to industry and community in regards to relevant policy parameters and locational considerations.

Updated guidelines
There is rapid technological change in renewable energy technology. Planning guidelines should either be flexible enough to respond to the level of impact and/or co-existence with agriculture or be reviewed on a regular basis as technologies change.

Opportunities for in conjunction with agriculture
The VFF is supportive of on farm generation of energy in conjunction with agriculture. Widespread distribution of energy generation across the network could be encouraged which would not only reduce demand but also provide greater geographic spread. Programs to support farm scale or ‘in conjunction’ renewable energy on farm with battery back-up would increase generation capacity across the network without significant impact on land use.

The concept of ‘in conjunction with’ is commonly used in planning. For example a permit for a caretakers dwelling may be granted in an industrial area – but the need for that dwelling must be demonstrated. Just as a 5 bedroom dwelling with a swimming pool in conjunction with a one truck business is unlikely to pass the ‘in conjunction with test’, a proposal to utilise an 800ha farm for energy generation in conjunction with grazing 20 sheep should not pass an ‘in conjunction with’ test.
Guidelines should also be provided to industry about options to support generation ‘in conjunction with’ and agricultural use. Traditionally wind energy facilities are located on broadacre properties as the land budget is not viable for horticultural use. There are international examples of solar facilities being designed as horticultural structures allowing agriculture and power generation.

- [https://mainichi.jp/english/articles/20180427/p2a/00m/0na/018000c](https://mainichi.jp/english/articles/20180427/p2a/00m/0na/018000c)
- [https://ensia.com/features/solar-farms/](https://ensia.com/features/solar-farms/)

Companies must design facilities to ensure they maintain or enhance agricultural production on the land.

Statements such as at 4.3 that “in most rural areas, renewable energy generation, such as solar energy facilities, can effectively co-exist with agricultural production. Solar Energy facilities can contribute to the rural economy and support farm incomes by providing property owners with a diversified revenue stream” should not be made. The solar guidelines should clearly reference or include material on how to consider the scale and / or ‘in conjunction with’ tests.

The VFF calls on the government to ensure consideration of renewable energy facilities meet the PPF agriculture content and principles.

Land use change – Impact on surrounding agricultural uses

The solar guidelines fail to provide guidance on the precautionary principle in relation to impact of land use change on agricultural production in the area. Guidance on a range of macro to micro issues is missing. For example:

- Is 25 year removal and no rehabilitation plan de facto loss?
- What is the microclimatic impact on specific commodities and how can design address these?
- If large areas of agricultural land were ‘lost’ for up to 25 years what would be the impact on secondary industries / could areas return to production without processing in the vicinity?

Clear guidance should be developed on how to determine deemed loss. Applications should not be approved without an authorised rehabilitation plan that addresses how the land can be returned to agriculture and who is responsible for undertaking the works for this to be achieved.

Peer reviewed research into the impacts of solar arrays on agricultural commodities has not been undertaken under Australian conditions. US research has indicated temperature change in arid zone testing. Many horticultural commodities are sensitive to temperature – which could be positive or negative. Research into this impact should be undertaken and in the interim conservative setbacks included in the guidelines.

Many of our members have concerns regarding potential health impacts of some forms of renewable energy. As epidemiological research can take decades to undertake it will be important to look at what may be the possible impacts and how the guidelines could respond. For instance – is there a topography where glare or glint may cause concern for agricultural workers. For instance planning system has included non-reflective materials conditions for shedding. The World Health Organisation 2018 Environmental Noise Guidelines for the European Region has addressed issues in relation to wind turbines which were previously not thought to be a concern.
The VFF believes an ongoing research and monitoring program is required to assess impacts of renewable energy and in the interim the precautionary principle should be applied in approval guidelines.

Rehabilitation/removal
Depending on the type of process there may be many issues to be addressed – from dismantling infrastructure including concrete footings to returning organic matter to the soil. The cost and expertise to undertake this work could be significant and should be addressed as part of the approvals or ‘licensing’ process and factored in to industry considerations of profitability of the proposal.

There is a need for rehabilitation plans to be formalised as is the case with the minerals sector under the Mineral Resources (Sustainable Development) Act.¹

A permit must not be granted (or acted upon) until a rehabilitation plan has been lodged and approved with the appropriate regulator.

This would include:
- A clear requirement that the proponent (energy generator) must rehabilitate land;
- A requirement for a rehabilitation plan must be prepared in consultation with the land owner and take into account:
  (i) any special characteristics of the land; and
  (ii) the surrounding environment; and
  (iii) the need to stabilise the land; and
  (iv) the desirability or otherwise of returning agricultural land to a state that is as close as is reasonably possible to its state before the renewable energy facility was granted including soil condition;
  (v) any potential long term degradation of the environment.
- The ability to instigate a rehabilitation liability assessment;
- The requirement for a rehabilitation bond
- Timeframes and conditions for the undertaking of rehabilitation
- Certification process for rehabilitation
- Requirements for the Minister to carry out rehabilitation where unsatisfactory rehabilitation has been undertaken.
- The establishment of a compensation fund.

The VFF Calls on the Government to ensure there are processes in place to consider rehabilitation and return of land to agricultural production.

Options to improve agricultural considerations
Over the past few years VFF have forwarded submissions to DELWP in response to Smart Planning processes and how these principles can and should be applied to agriculture in farming zones. The VFF Right to Farm policy has been the basis of these submissions and in identifying actions required by DELWP to embed SMART Planning and right to farm into the Victoria Planning Provisions (VPPs).

The current solar guidelines are not clear in regards to the agricultural considerations and there is currently little wider support given to interpretation aids such as strategic mapping.
The VFF calls on the Government to ensure the PPF is revised to reference RGP agricultural mapping and ensure agricultural production is not only protected from loss but given the conditions to increase through diversification and intensification.

The primacy of agricultural production in the farming zones has been the subject of many public processes such as interim development orders, planning schemes processes, New Format Planning Schemes and multiple reviews of rural zones by advisory committees. This work should not be undone by transitioning large areas to renewable energy without similar comprehensive strategic considerations.

The VFF considers there are four key areas that must be strengthened in the Solar Guidelines. These are:

- Mapping;
- Scale / in conjunction guidelines;
- Being able to reference a wider strategic process including what elements the guidelines relate to and what elements proponents must demonstrate compliance with before applying and before commencing; and
- Strengthening state policy for agriculture.

Indicative projects to improve the operation of the planning system in agricultural areas include:

- $250,000 for a study to examine existing triggers in zones, overlays and particular provisions against SMART planning;
- $100,000 to prepare guidance notes/ministerial directions outlining considerations before applying overlays on farming land and in the consideration of permit triggers in zones or particular provisions to minimise the regulatory burden on modernising existing use;
- $250k for Farm Zone practice notes;
- $250k for audit of referral body conditions (FZ) and training;
- $750k for VPP process review/right to farm, including Green Wedge Zone and SPPF content.

**Mapping**

The absence of maps within the Planning Scheme to determine strategic agricultural land of state, regional and local importance provides challenges relating to clarity in the agricultural content of the draft solar guidelines.

Longer term solutions would include all councils to consider these considerations as part of the Planning Scheme Review and DELWP revisiting previous projects on high quality agricultural land and the Agriculture Overlay, as well as previous Rural Land Mapping projects.

There is an existing set of Government sanctioned mapping for agriculture. Each Regional Growth Plan outlines agricultural areas of state and regional significance. This mapping could be readily refined and mapped at a planning scheme scale through conversations with the regional partnerships.

At a minimum the solar guidelines must refer to the agriculture content in the regional growth plan to provide clarity and consistency in interpreting what is meant by the sections by acknowledging areas already identified.

Indicative projects to improve agricultural mapping in the planning system include:
• $250,000 to finalise departmental mapping of significant agricultural areas;
• $250,000 to regional partnerships to assist in the identification of strategic agricultural areas and likely growth / expansion for inclusion in state policy;
• $250,000 for review of SCC data layers and options to improve agricultural knowledge.

In conjunction with / secondary test
As raised under agricultural considerations there is great scope for the planning system and/or guidelines to be refined to provide clearer guidance on:
• Land where renewable energy facilities that replace agriculture as the primary land use are prohibited;
• How to measure whether renewable energy is ‘ in conjunction with’ agriculture;
• How to assess design parameters to ensure agricultural production is maintained on the land.

In addition to the items already outlined an agriculture / referral advice program should be funded to ensure planners understand the strategic context of their decisions in relation to the PPF. This program would be seen as similar to the existing ‘Stock Sense’ program in that the funded position is not involved in policy development but provides independent professional advice to decision makers. The planning system equivalent to heritage advisory service grants to local government but with the advisors based in a central location rather than within local council.

VFF funding request
• $2.5 million (over four years) to support VFF-based agriculture/referral officers.

Reference to strategic guidelines (public strategic process)
The Farming Zone has been applied to land where agriculture is envisaged as the appropriate use of the land. The guidelines should not promote development proposals that are outside of the purposes of the zones.” Renewable energy facilities in strategic agricultural areas must meet in conjunction tests, unless, at a minimum, an Advisory Committee has considered the cumulative impact of the proposal.

Need for strengthened state policy for agriculture
There has been a tendency in the planning system or by planners to see agriculture as ‘vacant’ or a land use ripe for development of a perceived ‘highest and best’ use.

For example, when the new format planning schemes were introduced the Manual suggested that the ‘rural’ zone be applied to future urban land.

Many Municipal Strategic Statements and Council Plans will include references to the vital role that agriculture plays in the economy of the municipality, but contain no strategies about how to grow agricultural production. Planning schemes often contain content such as landscape controls that regulate ploughing without considering the impact of that on section one uses or the basis of the Planning and Environment Act (the Act) itself.

For many years the VFF has highlighted that the failure to recognise agriculture as a key economic driver for the state has led to a policy context that by failing to protect agricultural land causes a reduction in output from an the agriculture industry, and fails to promote growth of a ‘renewable’ industry – agriculture.
The PPF and the Solar Guidelines must be refined to equip decision makers to undertake proper assessments of the impacts on agriculture and to understand the significance of agriculture to the social, economic and environmental well-being of the state.

In order to better address scale and impact / ‘in conjunction test’ within the Solar Guidelines there is a need to identify areas where applications for large scale facilities that effectively replace agriculture will be prohibited unless identified by a future strategic and consultative process.

As some RGP content is already referenced within the PPF the VFF contends that agricultural content from each RGP be included in the PPF and a new clause 14.1-3S be introduced to reference areas of state and regional agricultural significance. This could be modelled on 17.03-3S for state significance development.

Further work and refinement will be required on developing zone or particular condition requirements to address scale and in conjunction tests. Definitions may also need to be revised.

Discussions are required with industry to develop a framework to consider when land use change is ‘deemed permanent’ and in the absence of a regulatory requirement for a rehabilitation plan what application requirements and decision guidelines would be required to ascertain whether rehabilitation is feasible or likely.

**Economic Considerations**

Greater guidance is required in the Solar Guidelines to ensure ‘like for like’ considerations are made in relation to economic benefits. In some recent cases renewable energy proponents have been comparing income and employment of the renewable energy facility to recent agriculture output on a property that has been sold and not actively farmed.

The income and employment figures were based on a multi-million dollar investment. Comparisons should be made to what agricultural output and employment would be if a similar investment was made on an agricultural use – irrigation, intensification, and diversification. The impact on secondary employment (transport, processing) and ongoing permanent jobs should be included in the comparisons.

The guidelines could reference a practice note or direction on how to undertaken economic impact assessments.

**Precautionary Principle**

Recent VCAT determinations have used the ‘precautionary’ principle in relation to interpreting the quite detailed Native Vegetation Regulations (Clause 52.17). The VFF contends that there are many more unknowns in relation to many forms of renewable energy so it will be critical to ensure a rigorous science program is undertaken and any planning guidelines are based on precautionary principles for consideration of impact on agriculture or health in the interim.

The VFF supported the Andrews Government in applying a similar approach to groundwater impacts from onshore conventional gas.
We call on the Government to fund the Victorian Chief Scientist to undertake scientific research into:

- Any impacts of renewable energy production technology on agricultural commodity production and how this can be ameliorated; and
- Any impacts of renewable energy production technology on human health and amenity and how this can be ameliorated.

**COMPARISON WITH OTHER STATE’S PROVISIONS**

While land use decisions are a state matter the basis of the land use planning system is similar in all Australian jurisdictions.

New South Wales and Queensland have chosen to clearly identify issues of scale and impact within their guideline processes. Both states have agricultural mapping to reference.

Both Queensland and New South Wales have a wider scope and focus to the guidelines and ensure that there is greater regulatory oversight of the range of issues that the Solar Guidelines lead to non-enforceable ‘best practice’ advice.

The following elements of the New South Wales and Queensland Guidelines are referred for consideration of ways to improve the functionality, clarity and comprehensiveness of the Solar Guidelines.

**New South Wales Large Scale Solar Energy Guideline for State Significant Development December 2018**

- Clearly identifies Scale.
- Has as a purpose the need for industry to select sites that reduce likelihood and impact of land use conflicts and environmental and social impacts.
- Clearly identifies where large-scale solar can be applied for.
- Indicates planning approval process for network connections.
- Outlines stakeholder engagement in the statutory process.
- Specifically references important agricultural land (strategic, irrigated and soil capability class based) in site selection.
- Articulates land use conflicts (including agriculture) in assessment issues.

**Queensland Solar Farm Guidelines**

- Clearly articulate assessment processes based on scale and impact.
- References state agricultural land classifications.
- Step through stages of development (including construction, operation and end of life planning) and what the community can expect at each stage.
- Identifies the roles of various parties and stakeholders.
- Has a specific section on community engagement.

**Options to improve statutory considerations**

There are a range of planning and other regulatory processes which could be refined to improve the cradle to grave consideration of renewable energy facilities.
In relation to the planning system and the solar guidelines there are a range of actions that should be undertaken in addition to the redrafting and refinement of the Solar Guidelines to address scale, impact and in conjunction considerations. This includes:

- Redrafting the PPF content and including mapping and statements from the RGPs;
- Inclusion of scale based definitions for renewable energy;
- Redrafting zone use tables to reference scale processes and relevant ‘conditions’;
- Preparation of / revision of particular provisions;
- Application requirements and decision guidelines on biosecurity / weed management / fire management;
- Development of standard conditions on biosecurity / weed management / fire management;
- Guidance materials on the use of buffers for minimising offsite impact on agricultural uses;
- Guidance material on siting and design to maximise agricultural production ‘in conjunction’ with energy generation;
- Guidance material on impact studies – content and considerations;
- Guidance material on cumulative impacts – content and considerations.

In relation to other regulatory systems the following range of actions should be undertaken and referenced in the appropriate section of the solar guidelines.

- State Strategic Plan for Renewable Energy.
- Inclusion of rehabilitation clauses in network connection / approval processes.
- Inclusion of 2009 Victorian Bushfire Royal Commission recommendations on powerlines in regulatory approval / connection processes.
- Inclusion of network access plans and approval clause in network connection / approval processes.
- Wider community benefit – upgrading distribution network / upgrade SWER lines.
- Inclusion of biosecurity / weed management / fire management plans in network connection / approval processes.
- Preparation of clear land access guidelines for network connection.
- Preparation of minimum standards for community information, engagement and assistance.
- Preparation of procedures to ensure impacted community receive compensation or solatium payment.

SMART Planning

In order to meet the principles of SMART Planning there must be a presumption against discretionary uses in the Farming Zone that displace agriculture.

Any submission / review process on VPP changes should be overseen by DWELP Planning and subject to a Panel or Advisory Committee. The Planning Reform process envisaged that there would be opportunities to raise issues with the functioning of the VPP to a Standing Advisory Committee that would make recommendations on potential changes.

Failure to have these processes in place is impacting on the production of food and fibre in Victoria.

The planning scheme should recognise the primacy of agriculture in farming zones and seek to minimise any ‘right to farm’ land use conflict. As the population increases and the available arable land decreases farmers will need to change practices to provide the basic human needs to Australian and global populations.
Farming is also a price taking industry which is subject to many climatic events. The planning scheme should recognise the important role the sector plays in the Victorian and regional economies and seek to support farmers undertake practices that are more sustainable and productive.

The VFF calls on Government to undertake a comprehensive assessment of the impact of the planning system on agriculture and prioritise the review of scheme content applying to farming land against SMART Planning principles.

CONCLUSION

The VFF believes it is critical that there be an integrated and comprehensive range of tools to ensure proper consideration of the impact of non-agricultural uses in the farming zone.

As it will take time to fully provide integrated and holistic guidance changes must be made in the interim to guide decision making to avoid perverse outcomes.

The VFF believes it is critical that in conjunction with refining the Solar Guideline content the Government undertake wider changes to the planning framework to provide a strategic context for decision making and materials to assist decision makers assess impact.

Simple amendments to the VPPs, especially the PPF must be made in a timely manner and released prior to or in conjunction with the release of the Solar Guidelines.

To ensure proper management of limited land resources and support the right to farm the Government must prioritise the creation of both a state-wide strategic plan for renewable energy and review planning scheme content to remove barriers to agricultural land uses and to ensure proper protection of this finite resource.

Victorian Farmers Federation
Excerpt from the Mineral Resources (Sustainable Development) Act

<table>
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<th>Part 7—Rehabilitation</th>
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77U Definitions
In this Part—

**auditor** means an environmental auditor appointed under section 53S of the Environment Protection Act 1970;

**authority** means—

(a) an exploration licence, a mining licence, a prospecting licence or a retention licence under Part 2; or

(c) an extractive industry work authority;

**authority holder** means the holder of an authority.

78 Licensee must rehabilitate land
(1) The holder of a mining licence or prospecting licence must rehabilitate land in accordance with the rehabilitation plan approved by the Department Head.

(2) The holder of an exploration licence or retention licence must rehabilitate land in accordance with the conditions in the licence.

(4) The owner of land may request the licensee to enter into a written agreement as to the rehabilitation plan.

78A Holder of extractive industry work authority must rehabilitate land
(1) The holder of an extractive industry work authority must rehabilitate land in accordance with the rehabilitation plan approved by the Department Head.

(2) The holder of an extractive industry work authority must rehabilitate land in accordance with the conditions in the authority.

79 Rehabilitation plan
A rehabilitation plan must—

(a) take into account—

(i) any special characteristics of the land; and

(ii) the surrounding environment; and

(iii) the need to stabilise the land; and

(iv) the desirability or otherwise of returning agricultural land to a state that is as close as is reasonably possible to its state before the mining licence, prospecting licence or extractive industry work authority was granted; and

(v) any potential long term degradation of the environment; and

(b) be prepared by—

(i) the applicant for the extractive industry work authority after consultation with the owner of the land, if the land is private land; or

(ii) the licensee after consultation with the owner of the land, if the land is private land and the licence is a mining licence or prospecting licence.

79A Rehabilitation liability assessment
(1) The Minister may require an authority holder to undertake an assessment of the authority holder’s rehabilitation liability under section 78 or 78A (a rehabilitation liability assessment) for the purpose of determining the amount of a rehabilitation bond or reviewing the amount of a rehabilitation bond entered into or to be entered into by the authority holder.

(2) A rehabilitation liability assessment must—

(a) be undertaken in a manner and form determined by the Minister; and

(b) take into account works required to be undertaken to rehabilitate the land in accordance with the requirements of section 78 or 78A (as the case may be).

(3) The Minister may require an authority holder to engage an auditor to certify that a rehabilitation liability assessment has been prepared in accordance with subsection (2) and that it is accurate.

(4) An auditor who has given a certification under subsection (3) must forward a copy of the
certificate to the Minister within 21 days after giving that certification.

80 Rehabilitation bond
(1) A licensee or an applicant for an extractive industry work authority must enter into a rehabilitation bond for an amount determined by the Minister.
(2) If land covered by a mining licence or prospecting licence is private land, the Minister must, before determining the amount of a rehabilitation bond, consult with—
   (a) the council in whose municipal district the land is situated; and
   (b) the owner of the land.
(2A) If the land that is proposed to be covered by an extractive industry work authority is private land, the Minister must, before determining the amount of a rehabilitation bond, consult with the council in whose municipal district the land is situated.
(3) The condition of a rehabilitation bond is that the authority holder rehabilitates the land as required by section 78 or 78A to the satisfaction of the Minister.
(4) The Minister may, at any time after a rehabilitation bond is entered into and after consultation with the authority holder, by notice served on the authority holder require the authority holder to enter into a further rehabilitation bond within 28 days after service of that notice, or by a later date specified in the notice, for an amount determined by the Minister if he or she is of the opinion that the amount of the bond already entered into is insufficient.
(4A) An authority holder must comply with a requirement to enter into a further rehabilitation bond under subsection (4).
Penalty: In the case of a corporation, 200 penalty units.
In any other case, 40 penalty units.
(5) The Minister may serve on an authority holder who has not complied with a requirement under subsection (4) within 28 days after service of notice of the requirement, a notice prohibiting the authority holder from doing any work until the authority holder has entered into the further rehabilitation bond.
(6) An authority holder must comply with a notice under subsection (5).
Penalty: In the case of a corporation, 1000 penalty units. In any other case 200 penalty units.
Default penalty: In the case of a corporation, 20 penalty units. In any other case, 10 penalty units.

81 Rehabilitation
(1) The authority holder must rehabilitate land in the course of doing work under the authority and must, as far as practicable, complete the rehabilitation of the land before the authority or any renewed authority ceases to apply to that land.
(2) If the rehabilitation has not been completed before the authority or renewed authority ceases to apply to the land the former authority holder must complete it as expeditiously as possible.
(3) While the rehabilitation is being completed, a former authority holder must continue the appointment of—
   (a) in the case of a former licensee, a manager to control and manage the former licence worksite; and
   (b) in the case of a former extractive industry work authority holder, a quarry manager or person to manage the site where the extractive industry operation was carried out.
Penalty: 20 penalty units.

81A Certification that land has been rehabilitated
(1) The Minister may require that an authority holder or a former authority holder engage an auditor to certify that land has been rehabilitated as required by section 78 for the purpose of deciding whether to return any rehabilitation bond under section 82.
(2) An auditor who has given a certification under subsection (1) must forward a copy of the certificate to the Minister within 21 days after giving that certification.

82 Return of bond if rehabilitation satisfactory
(1) The Minister must return the bond or bonds to the authority holder or former authority holder as soon as possible if the Minister is satisfied—
   (a) that the land has been rehabilitated as required by section 78 or 78A (as the case may be); and
   (b) that the rehabilitation is likely to be successful.
(2) If the land is private land the Minister must not return the bond or bonds to the holder or former holder of a mining licence or prospecting licence or the holder or former holder of an extractive industry work authority until after the owner of the land and the council in whose municipal district the land is situated have been consulted.
(3) The Minister may, as a condition of returning a bond or bonds to an authority holder or a former authority holder, require that person to enter into a further rehabilitation bond if any land or part of the land to which the bond relates has not been rehabilitated, or requires further rehabilitation.

**83 Minister may carry out rehabilitation**
(1) The Minister may take any necessary action to rehabilitate land if he or she—
   (a) is not satisfied that the land has been rehabilitated as required by section 78 or 78A (as the case may be); or
   (b) is satisfied that further rehabilitation of the land is necessary; or
   (c) is requested to do so by the owner of the land.
(2) The Minister must, if he or she refuses to act on a request under subsection (1)(c), inform the owner of the land of the reasons for that refusal.
(3) The Minister may only take action under subsection (1) if he or she has requested the authority holder or former authority holder to rehabilitate the land and the authority holder or former authority holder has failed to do so within a reasonable period after the request.
(4) The Minister may recover as a debt due to the Crown in a court of competent jurisdiction any amount by which the cost incurred under subsection (1) exceeds the amount of the bond or bonds.
(5) The Minister must, if satisfied that no further rehabilitation of the land is likely to be necessary, return to the authority holder or former authority holder as soon as possible any balance of the bond or bonds after any cost incurred under subsection (1) is deducted.
(6) In making a decision under subsection (5), the Minister must take into account the possibility that some of the damage caused to the land by the authorised activities may not become evident for some time.

**84 Payment out of Consolidated Fund**
Any money required by the Minister under this Part is payable out of the Consolidated Fund, which is appropriated to the necessary extent.

**Purposes of the Farming Zone**
- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for the use of land for agriculture.
- To encourage the retention of productive agricultural land.
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.
- To encourage the retention of employment and population to support rural communities.
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.
- To provide for the use and development of land for the specific purposes identified in a schedule to this zone.