Submission No 273

INQUIRY INTO FEASIBILITY OF UNDERGROUNDING THE TRANSMISSION INFRASTRUCTURE FOR RENEWABLE ENERGY PROJECTS

Name: Gerald Conroy

Date Received: 14 July 2023

Gerald Conroy

The Hon Emily Suvaal, Committee Chair,

Inquiry - Feasibility of undergrounding the transmission infrastructure for renewable energy projects

Standing Committee on State Development

Parliament House

6 Macquarie Street

SYDNEY NSW 2000

Date: 14 July 2023

Dear The Hon Emily Suvaal MLC,

Re: Feasibility of undergrounding the transmission infrastructure for renewable energy projects

Thank you for the opportunity to make a submission to this important inquiry into the feasibility of undergrounding transmission infrastructure for renewable infrastructure projects.

Introduction

This paper is presented by Gerald Conroy, farmer, resident and impacted person of the proposed WestvicTransmission Line Project, VNI West or Western Renewable Project.

I make this submission since June 2020 to April 2023 I have been continually fighting to have my concerns addressed by the Victorian State Government and Ausnet who are the preponements of this project. The insurmountable toll this has placed on my family, friends, neighbours and the communities under consideration for this and future projects will put at risk the implied goal of this and other projects.

Our farm is located predominately in the upper Werribee River catchment adjacent to the Wombat State Forest. It is here that we have owned and managed the farm for 4 generations and in excess of 100 years.

We pride our commitment to the environment and a farming future. We have planted more then 30000 trees, fenced off wetlands and rivers and gullies to create a bio link that links the Wombat State Forest, the Werribee river and the East Moorabool river. This has created a unique environment where native animals and birdlife can safely traverse the landscape. The

centre piece of our environmental work is the 20 hectare wetland and river system that has created a set of lungs for the upper Werribee catchment. It is here that the water slows down and overflows into the surrounding soils, bringing to life organisms and creatures that allows the river to provide an environment that supports native animals to return to pre settlement.

It currently accommodates platypus, wombats, grey kangaroos, wallabies, koalas, Rakali "water rats", Black Fish, Frogs and Yabbies to name a few. These live below a myriad of birdlife that have nests on our property and are not restricted to Ducks including, Swans, Glebes, herons, Ibis, Brolgas as well as Wedge Tailed Eagles, Little Eagles, Falcons, Kites, Parrots including the Swift Parrot, Snipe etc etc.

Our work has been recognised by Conservation Victoria and we are in the process of transferring control of our biolink to them.

Currently the proposed alignment will destroy decades of work that our family has developed so as to protect the environment that we have lived in for greater than 100 years.

There is no consideration given to families and landowners like me in the planning of this energy infrastructure and our work or our future. The amount of time and money that has been undertaken to preserve and enhance cannot be measured or compensated as it has been developed to protect the future not the present.

I can see renewable energy developments within 30 kilometres of my place, the people who have this type of infrastructure have a choice to have it on there property and are well compensated financially for it. Under the current AEMO / Ausnet / State Government controls, we have no choice and are severely impacted in lifestyle, mental health, general health and financially. I have not bought a property under transmission lines but you seem intent to destroy me, my family and our environment and our future with this ill planned project by placing it over our heads.

You continually reinforce the need to rollout this infrastructure to the greater populated areas at the expense and health of the communities who are going to carry the burden and scar on our landscape and environment for hundreds of years.

Governments and bodies like yourselves should be making decisions and plans that consider everyone and not destroy the lives of the communities in the path of this destructive and soul-destroying project.

The whole consultation process has been constructed so as not to allow individuals and communities to respond, there is no transparency or informative or answers given to our concerns

Originally the North Ballarat terminal station was planned for the development of a new easement, now with the planned removal of the terminal station north of Ballarat, the whole project needs to be reviewed and that this was not a win for regional Victoria. All this did was shift the problem somewhere else and force the upgrading of the entire WRL project to 500kV and 80m high towers. These decisions did nothing but increase the impacts on the region.

Currently the RIT–T was not applied in a way that is credible, which reduces the scope for misunderstandings and disputes. The documents must have a focus on providing transparent, user-friendly data to stakeholders. A triple bottom line must be applied so that all economic impacts can be measured.

The Multi-criteria analysis is flawed because it did not seek to understand what we value and what is important to us. It was a desktop study by people who have never spoken with the people impacted and are still trying to have their concerns considered. If the multi-criteria analysis is so important then it must be applied to the WRL to determine the least-impact solution where upgrading existing easements would be the most cost effective.

As stated, the geographical area of the current proposed WRL alignment is peri-urban and traverses' areas that are environmentally sensitive, have established land uses, includes a growing amount of high value landholdings, has materially populated towns, is a high value tourism region and has topography that is not suited to transmission development. This results in a high degree of impacts and constraints that cannot be avoided or mitigated.

The current proposed shared alignment of both VNI West and the WRL creates a supercritical single point of failure and limits geographic diversity. A loss of this line would result in the majority of generation in Western Victoria and imports from NSW to be drastically reduced which would severely impact system security.

I believe that you are not listening and your failure to explore feasible alternatives is going to result in increased and continued opposition and major delays or the project never starting or finishing

I believe the Victorian Government and AEMO should upgrade existing corridors with added capacity or underground DC electricity alongside existing transport corridors or on public land to ensure minimal disruption to farm businesses in the region.

Recommendation

To redesign the template for developing and connecting existing and new energy infrastructure along with the transmission of this energy. The AEMO sponsored RIT-T and PACR tests are outdated and does not take into consideration the rights of present and future communities under threat from these projects.

It would enable cost effective design and construction especially with the environmental protection, social cohesion, and economic growth of the affected communities.

With the phasing out of other energy sources, the reliance of new energy generation / electricity will need a reliable, sustainable and cost-effective solution.

To upgrade existing corridors with added capacity or underground DC electricity although dearer to establish would give security and sustainability to nation that will have a reliance on industry and dwellings that will be use electricity for cooking, refrigeration, heating and cooling and now electric vehicles.

1.1 Objectives and Road Map of this Paper

This paper discusses internationally recognized best practices for assessing, avoiding, reducing, and mitigating the environmental impacts associated with the siting, construction, and operation of high-voltage electric power transmission lines and associated facilities such

as substations and terminal stations. It also discusses the environmental assessment and mitigation requirements for transmission projects.

Section 2 of this paper contains a brief discussion of the types of environmental impacts associated with transmission lines. Note that this discussion refers only to the impacts associated with transmission facilities themselves, not to the system-wide impacts and benefits resulting from the interconnection of previously separate grids.

Section 3 of this paper discusses widely acceptedapproaches and methods for assessing and reducing transmission line impacts.

2. Types of Environmental Impacts Found in Transmission Projects

2.1 Characterization of Transmission Line Impacts

An extensive practical knowledge base exists on the types of environmental impacts associated with electrical transmission projects. The literature includes such sources as project environmental impact assessments and reviews, academic journals, textbooks, electric utility operations manuals, and regulatory authority

Much of the knowledge base on the environmental impacts of transmission rights-of-way is represented by what has happened in the past. With the advent of social licensing it is now more important to listen and act on community issues

The most common categories of environmental impacts appearing in this literature are described briefly in thefollowing paragraphs.

2.2 Land Use Changes and the Agricultural impacts

The construction and operation of transmission lines can lead to significant land use changes in the transmission rights-of-way and on the grounds of associated facilities. Many industrial, commercial, and residential uses are incompatible with the requirement to keep transmissionrights-of-way clear of obstacles and structures, and for reasons of safety and public health.

Agriculture will be affected, by the elimination of cropland, the temporary loss of crop production due to construction, and the incompatibility of certain crops and agricultural activities with transmission facilities.i.eirrigation of crops by irrigators , fixed, lateral move or centre pivot.

Transportation can be affected by the placement of transmission lines and towers near airports, roads, and waterways.

The impact on livestock and the long-term effects of living under the electromagnetic fields of transmission lines and their saleability to open markets.

Planning schemes which currently allow dwellings to be constructed in rural zones will be unviable and unsellable due to the placement and installation of transmission lines and the ability to place a dwelling or commercial facility on a private property owners property in the future.

2.3 Forestry Impacts

Transmission line construction and maintenance can lead to the permanent removal of woody vegetation and in some cases to the complete conversion of strips of forest ecosystem into bare land or land covered by completely different vegetation communities. Fragmentation, pesticide use, and invasive plant species within the right-of-way can also affect surrounding forest areas.

2.4 Wetland and Riparian Impacts

Transmission line construction and maintenance can convert areas of wetland or riparian ecosystem outright, destroy or disturb plant and animal communities, and introduce invasive species. Soil compaction and soil erosion in wetlands and riparian areas can alter hydrology, changing the timing and magnitude of water and nutrient flows essential to ecosystem functions.

2.5 Hydrologic Changes

Transmission line construction can alter hydrology by compacting soil, removing plant cover, and altering existing drainages or creating new ones. Altered hydrology can affect aquatic, wetland, and riparian habitats and species, and can affect soil moisture and surface water availability in other kinds of ecosystems.

2.6 Soil Erosion

Transmission line construction can lead to soil erosion by removing vegetation cover, compacting soils, and cutting into banks. Erosion can reduce soil fertility and lead to siltation, which affects water quality and productivity in aquatic and wetland ecosystems.

2.7 Biodiversity Impacts

The construction and operation of transmission lines can affect biodiversity in many ways, including habitat conversion and fragmentation, changes in hydrology, soil compaction and erosion, pesticide use, introduced species, and hunting and harvesting enabled by rights-of-way and construction roads. Species in small, rare, sensitive, and otherwise critical habitats may beespecially affected.

2.8 Wildlife Impacts

The wildlife impacts of transmission line construction and operation include bird electrocutions and collisions, changes in predator-prey relations in and along the edges of rights-of-way, destruction or alteration of wetland and aquatic environments, and increases in hunting and fishing enabled by rights-of-way and construction/maintenance roads.

2.9 Toxic and Water Pollution

Toxic pollution from transmission lines can result from pesticide use in rights-of-way, and from the leakage of PCBs from equipment that contains them. Water pollution can result from inadequate wastewater treatment for construction camps, workshops, and staff quarters.

2.10 Safety and Public Health including Fire Firefighting and Safety

Transmission lines present a risk of electrocution to the public, by direct contact with high voltage equipment and lines, and also by induced voltages, especially in the case of vehicles and farm machinery that transit beneath transmission lines. Humans and farm animals can also risk electrocution or nuisance shock when inadequate grounding at substations energizes metalobjects, such as stock tanks, fences either under transmission lines or outside substation

grounds. Other safety threats include the collapse of transmission towers during storms and the financial impacts of the loss of power into major cities, regional centres and industry.

Firefighting agencies (CFA, FRV and DEWLP) have procedures where direct firefighting cannot be undertaken, under, adjacent or above transmission lines. This puts adjoining properties at risk as active firefighting cannot be undertaken and will result in more losses, injuries and deaths. As a rate payer in Victoria, you must pay a fire service levy, how can your property not have response and be protected by the firefighting agencies if they are not allowed to enter these areas due to the extreme risk of firefighting due to potential short circuiting of the power due to smoke, dust or water vapour in the air

2.11 Electromagnetic Fields (EMF)

The effects of power-line frequency electromagnetic fields (EMF) on humans are scientifically uncertain at this point, but some studies indicate that chronic exposure to relatively high-level EMFs from overhead high-voltage AC transmission lines (and other AC equipment) can lead to an increased incidence of adverse health effects, including childhood leukemia and miscarriage.

With this now a consideration, a farming enterprise that is based on livestock production is now not viable to sell its breeding stock to remain viable.

2.12 Electromagnetic Interference (EMI)

Corona and induced electromagnetic fields from the operation of high voltage transmission lines can produce electromagnetic interference (EMI), or electrical noise, that affects the functioning of electronic and telecommunications equipment. “Jitter” in television screens and computer monitors can result from EMI.

2.13 Audible Noise

Corona from the operation of high voltage transmission lines can make audible noises, often described as “hissing,” in the vicinity of the right-of-way. Transformers also produce noises often described as “humming,” which are frequently audible outside substation borders. People often consider such noises to be a nuisance.

2.14 Resettlement

The need to clear land for transmission rights-of-way and associated facilities can result in the removal of people living in these locations, and their resettlement in new locations. Depending on conditions, resettlement can be socially and economically disruptive to the people affected, and ecologically damaging to the area in which they are resettled.

2.15 Indigenous Peoples

Transmission lines and associated facilities, and roads built for construction and access, can affect indigenous communities in a variety of ways, including removal and resettlement from ancestral homes, destruction or damage of important cultural sites, and the opening of previously remote areas to commerce and interactions with outsiders.

2.16 Economic Disruption

The construction and operation of transmission lines and associated facilities can affect local economies by disrupting agriculture, by producing or eliminating local jobs in construction or

maintenance, and by affecting property values for reasons such as aesthetic changes, perceptions of hazard, and road access.

2.17 Cultural Sites

Transmission line construction can affect cultural sites such as areas of archaeological, historical, or religious significance. Burial sites and buried artifacts may be disturbed, especially when excavation is required.Undergrounding can use existing easements i.e. road rail, energy corridors

2.18 Aesthetic Impacts

Transmission lines and towers are unattractive to many people, especially when located near their homes or near scenic sites such as parks and river crossings.

3. Best Practices for Assessing and Reducing Environmental Impacts in

Transmission Projects

3.1 Best Practices in Environmental Assessment

Internationally-recognized best practices for reducing the environmental impacts of transmission line construction and operation inevitably begin with the Environmental Effects Assessment process and the preparation of written environmental impact studies. Although the names and specific details associated with environmental assessment may differ in different countries and jurisdictions, there are common features that are widely considered to reflect current international best practices. These common features include those summarized in the

subsections below (3.1.1 – 3.1.9).

3.1.1 Alternative Routings

• Alternative routings must be proposed for transmission rights-of-way, as well as alternative locations for substations and other transmission facilities. Detailed maps with topographic and land use information must be included in draft and final environmental studies.

3.1.2 Specific Design Features

• Proposed line designs used for environmental assessment purposes must include, for each section of each alternative route, the specific information essential to determining potential environmental impacts, including right-of-way width, pole type and height, and span lengths. Similar information is required for substations, converter stations, and switchyards.

3.1.3 Technical Alternatives

• Relevant technical alternatives under consideration – such as the possible use of DC transmission, and the possible use of underground cables to substitute for overhead lines – should be included where applicable in descriptions of alternative routings and designs.

3.1.4 Comparative Assessment

• Environmental assessment stresses the comparative assessment of the proposed alternative routings, line designs, and technical alternatives for a number ofcategories of environmental impact, such as those described in Section 2 above. The null option – namely, of not building the transmission line or related facilities at all – should also be included in the comparison as a standard against which the project can be judged.

3.1.5 Social Impacts

• Social, cultural, and economic impacts on affected populations should be included within the meaning and basic intent of the environmental assessment process.This should form the basis of selecting a new easement or using an existing easement

3.1.6 Expert Assessment in the Field

• Environmental assessment of transmission projects must not be paper studies only.

Empirical investigations of conditions and potential impacts in the field must be undertaken by appropriate experts, including as appropriate such professionals as engineers, ecologists, biologists, economists, and anthropologists.

Input from private property owners should also be measured in the preliminary assessment. This group of people need to be acknowledged as stakeholders to ensure local input is not lost or not assessed against the project deliverables.

3.1.7 Public Input

• The environmental assessment process must actively solicit public input, including that of affected communities and non-governmental organizations (NGOs). Public input is often linked to a multi-stage process in the preparation of environmental impact studies, in which draft studies containing descriptions of the proposed alternative routings and line designs aremade available for public inspection, and meetings or other venues for soliciting input on these draft studies are provided.

3.1.8 Mitigation Plans

• After routings and design alternatives have been duly considered and decided upon, specific mitigation measures to reduce specific impacts identified in the environmental assessment must be concretely described in a mitigation plan. These measures should be based on international best practices as determined through due diligence by appropriate experts. Theadministrative and institutional arrangements for implementation of the mitigation plan should be clearly spelled out in the final environmental assessment report.

3.1.9 Monitoring

• Monitoring of environmental impacts, as measured against baselines established in the environmental assessment process, and of the ongoing implementation of mitigation plans, must be an integral part of the construction and ongoing operation of the transmissionfacilities.

3.2 Best Practices in Project Implementation

In addition to the general principles of Environmental Assessment described in the previous

section (Section 3.1), there are also specific best-practice techniques employed in actual projectimplementation. Some of the most widely-recognizedenvironmental best practices employed during the siting, design, construction, and operation phases of transmission projects are briefly described in the sections below. This list is general in nature; it goes without saying that the selection of the most appropriate specific methods for an actual project is always dependent on the specific conditions unique to that project.

3.2.1 Avoidance of Sensitive and High Value Areas

The siting of transmission facilities must seek to avoid to the maximum extent possible areas of high ecological, cultural, economic, and aesthetic value and sensitivity. When siting in such areas cannot be avoided altogether, the area of disruption should be minimized, and the impacts mitigated.

3.2.2 Use of Existing Corridors

The use of existing utility and transportation corridors for transmission facilities is generally preferred over the construction of new corridors, as long as such use does not adversely affect the environment or the pre-existing infrastructure. New technology such as refitting existing lines, monopole technology and undergrounding in existing easements is preferred to establishing a new easement.

3.2.3 Detailed Environmental Mapping

Proposed transmission routings should be accompanied by detailed mapping of environmental and cultural resources along the entire route, based on data collected by appropriate experts conducting field investigations, remote sensing, and other reliable data sources. Some examples of the types of data required include terrain and vegetation features, hydrologic features, the presence of sensitive or endangered species, migratory bird flyways, archaeological sites,indigenous villages, agricultural and industrial facilities, and seasonally sensitive data such asfire incidence, wildlife breeding, and fish spawning periods. This data as inputted by the communities has not been displayed or assessed as critical to the development of transmission lines, but this data is critical to the social licensing and the affect it has on the communities being impacted.

3.2.4 Integration of Environmental Data and Project Design

After environmental resources are mapped, they are often entered into GIS databases, in order to be more readily available for incorporation into decisions about transmission facility design,

Studies has identified five top issues requiring ongoing research as these are monitored over a number ofyears:

• The Degree to Which ROWs can Function as Ecological Corridors is Unknown

• The Degree to Which ROWs are a Fragmenting Force at the Regional, Landscape, and Watershed Scale is Unknown

• Specific Knowledge is Lacking on How to Control or Limit the Spread of Invasive species and the Chemicals Used on ROWs to Other Areas

• The Ramifications of Compliance with the Migratory Birds and the deaths of raptors is captured but not used in the decision making, which makes them Unknown

• How can ROWs Function as Habitat for Threatened and endangered Species Both on the ROW and as Part of a Larger Landscape construction, and operation.

3.2.5 Land Restoration and Set-Asides

When sensitive habitats are affected by the construction of transmission facilities, two kinds of mitigation measures are often employed. (1) Wetlands, forests, and other sensitive habitats disturbed by construction are re-landscaped and replanted with native vegetation, and otherwise restored as nearly as possible to their original condition. (2) Lands in other

locations withhabitats similar to those affected by the transmission project are purchased by the utility, placed in public trust, and protected from future development.

Most times an environmental offset is developed away from the communities where the impact is most affected. Local bio-links, wildlife sanctuaries provided by private property owners is destroyed in the name of renewable energy. This has enormous social impacts on communities that pride their low environmental footprint is minimised and the future of protecting the landscape is paramount to be sustainable into the future.

3.2.6 Resettlement Plans

When construction of transmission facilities entails resettlement of individuals who live under, adjacent or in close proximity to the proposed transmission lines, energy farms or associated energy infrastructure, a formal assessment must be undertaken and all resettlement expenses and losses paid by the proponent or state federal government. Again, the social licensing of affected persons must be main objective, not the development of a transmission line or energy facility

3.2.7 Compensation Plans

Other economic losses to individuals due to transmission facilities—for example, lost agricultural production in the right-of-way during construction—must also be formally assessed and compensated. When environmental, community, and cultural impacts affect a community as a whole—for example, in the case of damage to waterways or fisheries—these impacts should also be formally assessed and payments made to appropriate public agencies or NGOs to compensate the community, restore lost amenities, and support research into long-term effects and management practices.

3.2.8 Construction Practices in Sensitive Habitats

When the construction of transmission facilities in sensitive habitats cannot be avoided altogether, impacts can be minimized in several ways:

• Pre-construction surveys and post-construction monitoring.

• Use of underground cables instead of overhead lines (except where cable construction is more destructive than the impacts it would avoid)

• Widening span lengths to reduce the number of towers in sensitive habitats or avoiding placing towers in sensitive locations such as rivers.

• Also using different technologies such as undergrounding or using existing easements or energy corridors

• Limiting construction to dry seasons or periods when the ground is completely wet in order to minimize the effects of construction equipment on wet soils.

• Avoiding construction during periods in which essential natural processes such as wildlife breeding and fish spawning might be disturbed.

• Providing stringent control of erosion and sedimentation when vegetation is removed.

• Using helicopters for tower installation and other means of minimizing road-building in remote areas.

• Minimizing construction duration, noise, and use of explosives.

• Ensuring that construction equipment is properly cleaned to avoid accidental spreading of invasive species.

• Employing cultural experts in the project team to identify and protect valuable archaeological and cultural artifacts and sites encountered during construction.

3.2.9 BIO Security including Pest and Vegetation Management

Local BIO security plans must be adhered too especially in the planning and development of this type of infrastructure.

Control of biological diseases insects and vegetation in transmission rights-of-way should be conducted so as tominimize impacts on surrounding ecosystems. The techniques employed are generally referred to as Integrated Pest Management and Integrated Vegetation Management, and are adopted as appropriate to specific site conditions—for example, the terrain, vegetation type, and species present—along the entire right-of-way, as indicated by environmental mapping. IPM and IVM to minimize the use of herbicides and pesticides in favor of practices such as replanting with native species, manual mowing and trimming, and maintaining populations of natural predators. Whereherbicides and pesticides are used, they are precisely targeted and applied to minimize their spread into surrounding ecosystems.

3.2.10 Wildlife Protection

Techniques for protecting wildlife in transmission rights-of-way and substations must adapted for specific local conditions. Some widespread methods include the following:

• Bird collisions can be avoided by siting of towers and lines away from avian flyways, based on environmental surveys.

• Controlling wildlife to protect transmission facilities— birds and small mammals to prevent them from shorting out equipment such as transformers and breakers are a common problem. The elimination of convenient nesting places on transmission towers would not be a problem if existing corridors or undergrounding technology used.

• Illegal hunting and fishing in transmission rights-of-way, by utility employees as well as by members of the public, must be strictly monitored and prevented.

3.2.11 EMF Reduction

Although the health effects of chronic exposure to EMFs from AC transmission lines remain scientifically uncertain, many utilities and regulatory authorities employ EMF reduction practices as a precautionary measure, usually within the limit of a few percent of overall project cost. Guidelines differ from country to country; in many places, utilities seek to keep annualaverage magnetic field intensities at the edge of the right-of-way below about 10 mG (milliGauss). This is usually accomplished by one or more of the following methods:

• Use of DC transmission instead of AC transmission. DC transmission produces primarily static electric fields, and is therefore assumed to pose a minimal EMF-related human health concern.

• Use of underground cable, especially in areas whereresidential dwellings and worksites dictate.

• Raising conductor height above the ground, typically by increasing tower height.

• Reducing conductor spacing.

• Arranging phases so that fields tend to cancel.

• Increasing transmission voltage (since magnetic field intensities are a function of current, and increased voltage, all things being equal, will result in reduced current).

• Reducing loads (and therefore, currents).

• Increasing right-of-way widths or buffer zone widths, to move people further from transmission lines. The Australian Energy and Infrastructure Commissioner recommends a 300 metre setback to residential dwellings.

3.2.12 Aesthetic Improvement

Underground cables can be used to remove the risk of destroying the aesthetics especially when measuring damage to the environment, private property values and tourism.

4. World Bank Environmental Guidelines for Transmission Projects

The World Bank endorsed an official EnvironmentStrategy that named environmental protection, social cohesion, and economic growth as the three legs of the sustainable development tripod that support the Bank's core mission of alleviating poverty. This method must be used to identify and measure the transmission lines construction against the destruction of communities along any proposed new easement.

--

Regards,

Gerald Conroy

Warrah Livestock, Bunding Victoria

Beef and Sheep raised Free from Radiation and using the principles of organic agriculture.

Health – Our Organic agriculture is to sustain and increase the health of the soil, plants, animals and the planet in its whole.

Ecology – our Organic agriculture is based on living ecological systems and cycles, to work with them, emulate them and help sustain them.

Fairness – Our Organic Agriculture is based on fairness towards the common environment, life, and nature.

Care – Our Organic agriculture is managed carefully and responsibly in a way that general health and well-being of current and future generations and ecosystems can be protected and saved.

The welfare of the livestock, protection of the environment and management is our focus to ensure a clean and green product specifically used for breeding Stock for export and domestic markets.

Cattle care, Sheep care accreditation and Biosecurity management.

Trading as GS Conroy Pty Ltd including GA Conroy and MF Conroy