SUBMISSION

of

Environmental Awareness Association Inc. (EAA)

concerning the

House of Assembly Government Administration Committee A Inquiry into AI Data Centres in Tasmania

Contents

Executive Summary

Tasmania is facing an unprecedented concentration of AI and data centre proposals, with ten projects representing a prospective electrical load of 950 to 1,150 megawatts. This scale of development would materially reshape the State's energy system, strain hydro storage, erode export capacity, and require transmission and generation infrastructure comparable to rebuilding half of Tasmania's existing high voltage network. AI data centres are properly characterised as large scale industrial energy projects, yet current assessments have failed to apply mandatory environmental protections, disclose key impacts, or ensure transparent community consultation. The Bell Bay case demonstrates systemic regulatory failure, including misclassification, omission of electromagnetic radiation impacts, deferral of hazardous substances assessment, inconsistent EPA and council decision making, and the absence of any decommissioning bond. These failures expose neighbouring landholders and the broader community to environmental, financial and public health risks. The Tasmanian Government's own Draft Expectations for Data Centres and AI Infrastructure Developers were not met in the Bell Bay assessment, revealing a clear gap between policy intent and regulatory practice. The cumulative burden of these developments demands rigorous Parliamentary scrutiny to ensure Tasmania's planning, environmental and governance systems are capable of protecting public resources, community wellbeing and long term energy security.

Terms of Reference

This submission is provided to assist the Standing Committee on Government Administration A in discharging its responsibility to examine the construction and operation of AI data centres in Tasmania. The Committee's Terms of Reference require it to scrutinise how these facilities affect public resources, the

environment and Tasmania's planning and regulatory systems, and to determine whether the current level of Parliamentary oversight, transparency and community consultation is adequate for developments of this magnitude. The inquiry also seeks to ensure that the Tasmanian community receives tangible and equitable benefits from any AI or data infrastructure established in the state, together with any other matters incidental to these objectives.

These Terms of Reference arise at a moment of unprecedented pressure on Tasmania's governance systems. National and international proponents are advancing large scale AI and data centre proposals at a pace and concentration not previously experienced in the state. The cumulative impact of these developments demands a rigorous assessment of whether Tasmania's Resource Management and Planning System, environmental protections and public resource management frameworks are capable of regulating this emerging sector in a manner consistent with public interest, statutory obligation and democratic accountability.

Large Scale Energy Projects and Statutory Duties

AI data centres should be properly characterised as large scale industrial energy projects. Their defining feature is not just the buildings themselves but the magnitude of their electrical demand, which triggers multiple statutory duties under Tasmania's Resource Management and Planning System. These duties include the obligation to avoid environmental harm, the obligation to minimise risks to human health and the environment, and the obligation to provide sufficient information to enable informed decision making by planning authorities and affected communities. The ten currently known proposed projects are not minor footprints. They represent a coordinated landscape transformation that has a major impact on the State of Tasmania, involving access roads, high voltage transmission infrastructure, substations, switching yards, telecommunications upgrades, water supply works and other ancillary development on a vast scale.

The cumulative physical, acoustic, electromagnetic, ecological and visual impacts of such projects are inevitable and must be assessed in accordance with Tasmanian law.

Mandatory Triggers Under the Commonwealth EPBC Act

Because these secondary 220 kV and 110 kV transmission expansions must carve through northern and north-western Tasmanian landscapes, they directly intersect Matters of National Environmental Significance (MNES). Under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), any action likely to have a significant impact on an MNES must be referred to the Federal Government, completely independent of state-level planning schemes.

The massive energy and water footprints of the proposed 1,150-megawatt pipeline present direct, quantifiable risks to federally listed species, which legally warrant a Controlled Action determination:

- The Swift Parrot (Lathamus discolor) – Critically Endangered: The proposed data centre hubs and their associated high-voltage line upgrades directly cross the coastal blue gum corridors of northern Tasmania, which these birds rely on exclusively for breeding, foraging, and migration.
- The Tasmanian Wedge-Tailed Eagle (Aquila audax fleayi) – Endangered: High-voltage overhead lines present a severe avian strike risk. Furthermore, the clearing required for sub-stations and transmission corridors risks encroaching on mandatory 500-metre to 1-kilometre nesting exclusion zones.
- The Giant Freshwater Crayfish (Astacopsis gouldi) – Vulnerable: The immense water intake demands—such as the 8,700 kilolitres annually for Bell Bay and the heavily contested rainwater/riverine cooling proposals for Wesley Vale—threaten northern river catchments. Any sediment runoff or thermal alterations during construction will severely impact this sensitive aquatic species.

The Fallacy of State-Level "Self-Accreditation"

Proponents frequently argue that Tasmania's planning approvals bypass federal intervention due to state environmental accreditation. This is a profound misinterpretation of administrative law. Tasmania operates under an Assessment Bilateral Agreement with the Commonwealth. While the Tasmanian EPA conducts a single, coordinated environmental review to streamline paperwork, it is legally bound to assess the project against strict federal EPBC Act criteria.

Crucially, the State has no statutory power to grant final federal environmental approval. The Federal Environment Minister and the National Environmental Protection Agency (National EPA) retain the ultimate legal authority to approve, reject, or place conditions on any project deemed a Controlled Action.

The inevitability of the EPBC gauntlet for data centre infrastructure is proven by the North West Transmission Development (NWTD) project precedent. Because TasNetworks required 240 kilometres of new and upgraded overhead lines to bolster the grid, the Commonwealth stepped in and declared the Staverton to Hampshire Hills Corridor (EPBC 2020/8817) and the broader regional segments (EPBC 2022/09247) as formal Controlled Actions, binding the network expansion to 62 strict, legally enforceable environmental conditions. Under the integrated RMPS framework, the Tasmanian EPA cannot logistically ignore these broader macro-environmental footprints while fulfilling its statutory duties under the *Environmental Management and Pollution Control Act 1994* (EMPCA).

Ten AI Data Centres for Tasmania

Overview

Tasmania is currently the subject of ten identifiable AI and data centre proposals. These comprise three Firmus Technologies projects, one Viridis micro data centre, and six confidential proposals disclosed only by proponent numbers in a document tabled in the Tasmanian Parliament. Collectively, they represent a prospective electricity demand of a scale capable of reshaping the state's energy

system and imposing significant new pressures on water resources, environmental management, land use planning and community expectations. The concentration of these proposals places Tasmania at the centre of a rapid build out of digital infrastructure that requires close Parliamentary scrutiny.

Firmus Technologies - 288 megawatts

Firmus Technologies is the most advanced and publicly visible proponent. Headquartered in Launceston, it is positioning itself as an AI factory developer using submersion cooled clusters and pursuing both national and regional expansion. In Tasmania it has three projects. The first is a 104 megawatt immersion cooled AI data centre at St Leonards in suburban Launceston, already under construction and forming part of Firmus's strategy to anchor operations in northern Tasmania and leverage local grid capacity.

The second is a 288 megawatt AI data centre at Bell Bay, located within the Bell Bay Advanced Manufacturing Zone at the former Gunns pulp mill site at Long Reach. George Town Council approved this development on 25 August 2026 by a 6–1 vote, despite substantial community opposition and thousands of petition signatures. Conditions were imposed relating to power, water, pollution and environmental impact, with the council emphasising that its statutory assessment was confined to matters within the planning scheme. The Bell Bay facility is the largest single named project in the public document and is expected to draw 288 megawatts and use approximately 8,700 kilolitres of water annually.

The third Firmus project is a 52 megawatt AI data centre at Wesley Vale in the state's north west, which remains in the approvals process. Together, the three Firmus projects represent an estimated electricity demand of approximately 444 megawatts.

Viridis Micro Data Centre – Burnie – 1 megawatt

The Viridis project in Burnie is described as a micro data centre with an energy demand of less than one megawatt. Viridis Green Data Centres has secured

planning approval from Burnie City Council to establish a Tier III, Zone 4 edge data centre in the Burnie CBD. The approval was granted without conditions or operational constraints, allowing the project to proceed without modification. The facility will be constructed within an existing commercial building and is expected to draw approximately one megawatt from the existing grid connection, with a target operational date in the first half of 2027.

Six Confidential Proposals – 505-705 megawatts

In addition to the named projects, six further AI data centre proposals have been disclosed in Parliament. The Tasmanian government has withheld the identities of the proponents, citing commercial confidentiality and early development stages. Two of the six are large scale proposals with energy requirements in the 200–300 megawatt range. One has a preferred site in the state's north west and is in the feasibility stage, while the other remains in the concept stage. Two additional projects are listed at 50 megawatts each, both concept stage. Another is listed at 5 megawatts, concept stage. The smallest is under one megawatt and marked as feasibility on hold. Collectively, these six confidential proposals represent a prospective electricity demand of between approximately 505 and 705 megawatts.

Total Prospective Load 950-1,150 megawatts

When the three Firmus projects, the six confidential proposals and the Viridis micro centre are considered together, Tasmania faces a potential AI and data centre build out of approximately 950 to 1,150 megawatts. This prospective load is of a scale that would materially alter Tasmania's energy system, infrastructure planning priorities and environmental management obligations. The proposed need to generate approximately 1,000 megawatts to feed 10 AI Data Centres alone indicates the intensity of the electrical infrastructure required just to support them. It underscores the necessity of the Committee's inquiry and the importance of ensuring that Tasmania's regulatory systems are capable of managing developments of this magnitude.

Tasmania's Electricity System: Capacity, Constraints and the Impost of AI Data Centre Load

Tasmania's current electricity generation capacity has been temporarily reduced following the loss of the 142 megawatt Tungatinah Power Station due to fire. This event lowers the State's active generation capability from 3.96 gigawatts to approximately 3.82 gigawatts. The adjusted capacity reflects the absence of Tungatinah and the continued operation of the 90 megawatt Tarraleah Power Station, pending its future upgrade to 190 megawatts. Hydro generation now sits at 2.42 gigawatts, down from 2.56 gigawatts, but remains the dominant component of Tasmania's energy mix. Wind contributes around 0.60 gigawatts, solar approximately 0.40 gigawatts, and gas generation provides a further 0.40 gigawatts of dispatchable backup during periods of hydro constraint.

Even with Tungatinah offline, Tasmania retains a comfortable buffer between supply and demand. Peak winter consumption typically reaches around 1.8 gigawatts, leaving roughly 2 gigawatts of surplus capacity available under normal operating conditions. The introduction of 1,000 megawatts of new baseload demand from proposed AI data centres would fundamentally alter this balance, consuming close to half of the State's current surplus and significantly tightening operational margins.

This shift would also severely erode Tasmania's export surplus. Data centres operate continuously, drawing power around the clock. At present, Tasmania uses its surplus generation—approximately 2,020 megawatts—to export renewable electricity to Victoria via Basslink when market conditions are favourable. Redirecting 1,000 megawatts to domestic data centre load would substantially reduce Hydro Tasmania's ability to participate in profitable interstate energy trading.

The challenge is not limited to capacity measured in gigawatts; it extends to the volume of energy stored in the hydro system. Water availability is inherently variable and dependent on rainfall. A constant 1,000 megawatt load operating

every hour of the year would accelerate the depletion of dam storages during dry periods, materially increasing the risk to Tasmania's energy security.

To support this scale of new demand without compromising local supply or relying heavily on imported fossil fuel electricity from Victoria, Tasmania must accelerate the development of major renewable and transmission projects. Key initiatives include the Tarraleah upgrade, large scale wind developments such as Whaleback Ridge and Robbins Island, and the Marinus Link interconnector, which will provide greater flexibility by enabling the import of low cost mainland solar during the day and conserving Tasmanian hydro storage for night time and peak period generation.

Three critical projects currently progressing through the development pipeline illustrate the magnitude of infrastructure required to offset a 1 gigawatt increase in demand from data centres. The Whaleback Ridge Wind Farm on the West Coast has a potential capacity of 2.8 gigawatts and has been declared a State Major Project, with federal environmental assessment underway and construction of the initial 432 megawatt stage expected to commence in 2028. The Robbins Island and Jim's Plain Renewable Energy Park in the North West, with a combined capacity of 900 megawatts, has cleared its final legal and environmental hurdles, with transmission approvals expected in 2026 and construction anticipated to begin between 2027 and 2028 for first power by 2030. The Marinus Link interconnector, providing 750 megawatts in its first stage, has reached a positive Final Investment Decision and is entering physical construction across Tasmania and Victoria. Its role as an operational safeguard is central: it allows Tasmania to import mainland solar to support data centre load while preserving hydro storage for strategic dispatch.

The scale of transmission and grid infrastructure required to integrate 1,000 megawatts of new generation and data centre load is unprecedented in Tasmania's history. Delivering this capacity would require building transmission assets equivalent to roughly half of the State's existing high voltage network.

New major transmission corridors are needed to move power from remote wind generation sites on the North West and West coasts to preferred data centre locations near urban centres and subsea cable landings. Constructing these lines involves multiyear surveying, extensive easement acquisition across private land, and complex environmental and community approval processes.

Large terminal substations must also be constructed adjacent to data centre precincts to provide the stable, high voltage connections required for continuous industrial load. At generation sites, substantial switchyards are needed to consolidate output from hundreds of turbines before feeding it into the main grid. To maintain grid stability, synchronous condensers must be installed to provide inertia and frequency support, counteracting the variability of wind generation against the perfectly flat load profile of data centres. Grid scale battery systems will also be required at strategic substations to absorb sudden increases in wind output and deliver instantaneous support during transmission disturbances.

Beyond the sheer engineering challenge, the scale of this impost for only ten proposed AI data centres is extraordinary. No other single private development in Tasmania's modern history has required the State to contemplate rebuilding such a large portion of its electricity system from scratch. Meeting a continuous 1,000 megawatt load for a handful of facilities forces Tasmania into an infrastructure program so vast that it rivals the original construction of the hydro-electric scheme itself. It is not a marginal upgrade or a routine expansion; it is a structural transformation of the entire grid.

Specific Transmission Overhauls and Localised Grid Bottlenecks

The structural transformation of the grid required to support a 950 to 1,150-megawatt load is not abstract; it requires highly intensive, localised high-voltage (HV) line upgrades and terminal cut-ins that have been entirely omitted from individual property planning applications. This decoupling of ancillary infrastructure represents a failure to define the true spatial scale of the

"development" under section 3 of the *Land Use Planning and Approvals Act 1993* (LUPAA). Network mapping indicates that once committed industrial data loads in the northern region exceed 210 megawatts, the local grid requires an estimated $370 million in transmission upgrades. The specific transmission infrastructure requirements mapped out for the primary identified hubs include:

- The Bell Bay 220 kV Cut-Ins: Drawing a continuous 288-megawatt load at Long Reach requires the construction of a massive new terminal substation designed to cut directly into three parallel 220 kV (kilovolt) TasNetworks transmission lines traversing the property. Furthermore, to prevent catastrophic thermal overloading of the regional network shared by existing heavy industries (such as Bell Bay Aluminium), TasNetworks will be legally required to re-conductor (physically replace the wires with higher-capacity conductors) the local 220 kV feeders tied back to the primary Sheffield-to-George Town grid trunk line.
- The Wesley Vale 110 kV Infrastructure: The proposed 52-megawatt facility at the former pulp mill site demands a direct connection to the 110 kV transmission network adjacent to the Wesley Vale Substation. While the initial 26-megawatt stage utilises pre-existing industrial capacity, stepping up to the full 52-megawatt footprint requires comprehensive structural hardware upgrades inside the substation to prevent overloading the local 110 kV distribution loop.
- The St Leonards 104 MW Urban Feeders: This facility requires dedicated, high-capacity HV switching substations cut directly into the Launceston regional grid to shield surrounding residential zones from voltage fluctuations and power sags.

Under the Tasmanian Government’s Statement of Expectations, developers are mandated to operate under a strict "user pays" model for these network adjustments. Because these extensive transmission works are an intrinsic, functional component of the industrial operation, treating the data halls as a

standalone "Utilities" use to evade regional grid impact assessments constitutes a profound error of planning law.

The burden on the State is overwhelming. Tasmania would be required to divert public agencies, planning bodies, environmental regulators, and network operators into a decade long, multi billion dollar construction effort simply to service the private energy appetite of ten data centres. Every major component of the electricity system—generation, transmission, storage, stability infrastructure, and interconnection—must be expanded, duplicated, or reinforced at unprecedented scale. The financial, environmental, and social costs of this transformation fall overwhelmingly on Tasmanian communities, while the commercial benefits accrue primarily to multinational technology companies.

This imbalance is stark. Tasmania’s existing renewable system was built to serve 570,000 residents, local industry, and strategic export opportunities. It was never designed to absorb an additional baseload demand equivalent to powering half the State again. The requirement to construct new wind farms, new transmission corridors, new substations, new synchronous condensers, and new grid scale batteries—simply to feed ten private facilities—creates a level of pressure on land, water, regulatory systems, and public finances that is disproportionate to any reasonable conception of sustainable development.

In practical terms, Tasmania is being asked to shoulder the environmental footprint, the community disruption, and the long term energy security risks of an industrial transformation driven entirely by external corporate demand. The State must consider whether it is reasonable, equitable, or strategically sound to commit to infrastructure of this magnitude for such a small number of customers, particularly when those customers operate globally and can locate their facilities in jurisdictions with far larger, more flexible grids.

The consequence is clear: accommodating ten AI data centres is not merely a planning challenge. It is a structural burden that reshapes the entire Tasmanian

electricity system, consumes public resources at unprecedented scale, and risks subordinating the State's long term energy security to the operational needs of a handful of private operators. The magnitude of this impost demands careful scrutiny, transparent assessment, and a clear-eyed evaluation of whether the benefits to Tasmania genuinely outweigh the overwhelming burden placed upon its grid, its communities, and its future energy resilience.

AI Data Centres as Industrial Energy Projects and Their Environmental Footprint

AI data centres are properly understood as large scale industrial energy projects. Their defining characteristic is not the buildings themselves but the magnitude of their electrical demand, which triggers multiple statutory duties relating to environmental protection, public health, and informed decision making. Any development of this scale must demonstrate that it avoids environmental harm, minimises risks to human health and the environment, and provides sufficient information for planning authorities and affected communities to assess its impacts.

Meeting the electrical requirements of these facilities necessitates extensive high voltage transmission lines, substations and transformers to import electricity from the grid. These components generate electromagnetic fields/radiation (EMR), and proponents must address EMR emissions not only from supporting infrastructure but also from the data centres themselves, which contain dense arrays of high current conductors, switchgear and power distribution equipment. EMR is a physical emission that forms part of the environmental impact profile of any large scale energy development and must be assessed accordingly.

As raised earlier the infrastructure required to support AI data centres represents a vast landscape transformation. It includes access roads, transmission corridors, substations, switching yards, telecommunications upgrades, water supply works and other ancillary development. Collectively, these projects will

fundamentally alter the physical, acoustic, electromagnetic, ecological and visual environment across multiple regions of Tasmania. The scale of these developments means that cumulative impacts are inevitable and must be assessed in a manner that recognises their combined effect on communities, landscapes and public resources.

The Firmus Bell Bay Project – Approval and Appeal

The George Town Council approved a development permit for the Firmus Bell Bay Project on 25 August 2026 subject to conditions relating to noise, stormwater, air emissions, hazardous materials and bushfire risk. No EPA assessment was required following the Authority's determination that the risk of serious environmental harm was low or negligible. The project is therefore approved and awaiting construction commencement.

The appeal filed by the Environmental Awareness Association Inc (this submitter) challenges the George Town Council's permit approval on the basis that the Firmus Bell Bay development was incorrectly classified, improperly assessed and approved without the environmental scrutiny required for a 288 megawatt industrial scale facility. The appeal identifies that the project was referred to the EPA as a Level 2 industrial activity, triggered bulk fuel storage thresholds, and incorporates 276 diesel generators, high voltage electrical systems, transformers, switchgear and cooling plant capable of generating electromagnetic radiation, noise, vibration, hazardous substances risks and other environmental effects.

The appeal demonstrates that mandatory industrial codes, including the Attenuation Code, were not applied; that electromagnetic radiation emissions were not disclosed or assessed; that public notification was materially defective; that hazardous materials, bushfire risk and emergency management documentation were deferred until after approval; and that no decommissioning or rehabilitation conditions were imposed.

These matters directly engage the Committee's Terms of Reference. They raise fundamental questions about whether AI data centres are being properly recognised and regulated within Tasmania's Resource Management and Planning System, whether environmental effects and public resource impacts are being transparently disclosed, whether planning authorities are applying appropriate oversight and precaution, and whether the Tasmanian community is being afforded meaningful protection and consultation when developments of this scale are proposed.

Alignment with Government Energy Policy: Premier's "Creating the Energy Tasmania Needs"

The Premier's 'Creating the Energy Tasmania Needs' policy document provides clear and authoritative guidance on how major energy related developments must be assessed in Tasmania. Its statements reinforce the concerns raised in this submission and demonstrate that the assessment of the Bell Bay AI data centre did not meet the Government's own policy standards. The Premier states that Renewable Energy Zones (REZs) and associated infrastructure must be delivered in a manner that ensures "Tasmanians don't pay the price for energy infrastructure that isn't required". This principle directly supports the argument that 1000 megawatts needed for 10 AI Data Centres imposes substantial transmission, stability and generation burdens on the State without any mechanism ensuring that costs are borne by the proponents rather than the community.

The Premier further emphasises that "costs are only paid on what is essential and those costs are shared by those who benefit from the infrastructure". In the Bell Bay case, no such cost sharing mechanism exists. The assessment did not consider the cumulative energy burden of a continuous 288 megawatt load, nor did it require financial assurance, transmission contributions, or grid support

infrastructure from the proponent. This is inconsistent with the Premier's stated requirement for fairness and cost accountability.

The policy also makes clear that "communities hosting renewable energy projects should be the ones who see the most benefits returned to them". The Bell Bay community receives no benefit mechanism, no protections against EMR, noise or hazardous substances, and no assurance against future decommissioning costs. Instead, the community bears the environmental and industrial burden of a large scale energy project without any of the benefits the Government says must be guaranteed.

Finally, the Premier commits to "assessment protocols… to address regulatory delays and inconsistent advice" and to a "more integrated and coordinated preassessment process". The Bell Bay assessment demonstrates the opposite: misclassification, inconsistent EPA and Council treatment, omission of mandatory codes, and deferral of hazardous substances and emergency management documentation. These failures show that current practice is not aligned with the Government's own policy direction.

Taken together, the Premier's policy document provides strong confirmation that the concerns raised in this submission are not only valid but directly supported by Government energy policy. The Bell Bay assessment did not meet the standards articulated by the Premier, and the systemic issues identified here must be addressed to ensure that Tasmania's planning and environmental systems operate consistently with the Government's stated principles of fairness, transparency, community benefit and responsible infrastructure planning.

Tasmanian Government Expectations

The Draft Expectations for Data Centres and AI Infrastructure Developers: Tasmania, released for public comment on 4 September 2026, sets out the Tasmanian Government's intended requirements for proponents of AI data centres and digital infrastructure. It represents the clearest articulation of the

standards the Government expects developers to meet. It establishes expectations relating to environmental protection, transparency, community benefit, responsible infrastructure planning and coordinated regulatory oversight. As such, it provides an important benchmark against which current assessment practices can be evaluated.

The Tasmanian Government expects proponents to identify, avoid and mitigate environmental harm across construction, operation and decommissioning. This includes impacts arising from electromagnetic radiation, noise, vibration, hazardous substances, bulk fuel storage, cooling plant emissions, transmission infrastructure and end of life remediation. The assessment of the Bell Bay project did not meet these expectations. Electromagnetic radiation was neither disclosed nor assessed. Hazardous substances, bushfire risk and emergency management documentation were deferred until after approval. No decommissioning or rehabilitation bond was imposed. These omissions fall short of the Government's stated requirement that environmental harm be prevented and managed transparently.

The draft Expectations also emphasise the need for clear, accessible and timely information for affected communities. In the Bell Bay case, key environmental effects were not disclosed, including electromagnetic radiation emissions, attenuation distances, hazardous substances risks, emergency management arrangements and cumulative impacts. Public notification was materially incomplete, preventing representors from understanding the nature and scale of the environmental effects. This is inconsistent with the Government's expectation that communities be provided with full and accurate information.

The draft Expectations state that communities hosting data centres should receive tangible benefits and protections. In practice, communities affected by the Bell Bay proposal are exposed to the environmental burden of industrial electrical systems, the transmission burden associated with large scale energy supply, the noise and EMR burden of continuous generator and transformer

operation, and the long term risk of decommissioning costs. No community benefit mechanism exists, and no financial assurance protects neighbouring landholders or the broader community from future harm. This is contrary to the Government's stated intent.

The draft Expectations require proponents to demonstrate alignment with Tasmania's energy, transmission and land use planning frameworks. The Bell Bay assessment did not consider the cumulative energy burden of a 288 megawatt baseload facility, the implications for hydro storage, the transmission infrastructure required to support continuous load, the need for synchronous condensers or grid scale batteries, or the impact on Tasmania's export surplus. These omissions indicate that the assessment did not meet the Government's expectations for responsible infrastructure planning.

Finally, the draft Expectations commit the Government to consistent and coordinated assessment processes. The Bell Bay case demonstrates the opposite. The EPA classified the project as a Level 2 industrial activity, while the Council classified it as Utilities. Mandatory industrial codes were not applied. Electromagnetic radiation was ignored. Hazardous substances documentation was deferred. Public notification was defective. These inconsistencies are precisely the type of regulatory fragmentation the Government intends to resolve.

Taken together, the draft Expectations document highlights a clear gap between the standards the Government expects and the standards currently being applied. The Bell Bay assessment shows that Tasmania's planning and environmental systems are not yet operating in a manner consistent with the Government's own policy framework. This misalignment underscores the need for reform and reinforces the importance of the Committee's inquiry.

Case Study: Bell Bay AI Data Centre — A Demonstration of Systemic Regulatory Failure Across Tasmania

The assessment of the 288 megawatt AI data centre at Bell Bay provides a clear and instructive example of how Tasmania's current planning and environmental governance systems are struggling to regulate large scale AI and data infrastructure. Although this case concerns a single development, the errors and omissions identified in the assessment process are not isolated. They reflect structural weaknesses that will recur across all ten proposed AI data centres unless addressed through statewide reform.

Misclassification of Industrial Energy Infrastructure

The Bell Bay proposal was classified as "Utilities," despite containing the inherent characteristics of a large scale industrial energy project. The development includes 276 diesel generators, high voltage cabling, transformers, switchgear, cooling plant, bulk fuel storage and extensive mechanical systems. These are industrial components, not low impact public utilities.

This misclassification allowed the development to bypass mandatory industrial codes, including the Attenuation Code, and prevented proper assessment of environmental effects such as noise, vibration, hazardous substances and electromagnetic radiation (EMR). The misclassification also created inconsistency between the planning assessment and the EPA referral, which recognised the development as a Level 2 industrial activity.

Failure to Apply Mandatory Environmental Codes

The Attenuation Code applies to any development capable of generating environmental effects that may impact sensitive uses. The Bell Bay facility includes extensive electrical and mechanical infrastructure capable of generating EMR, noise, vibration, harmonic emissions and hazardous substances impacts. Despite this, no EMR assessment, attenuation modelling or mitigation measures were required.

The failure to apply mandatory codes is not a procedural oversight; it is a systemic risk. AI data centres contain industrial scale electrical systems that must be assessed under the same environmental protections applied to other large scale industrial activities.

Omission of Electromagnetic Radiation (EMR) From Public Notification

The public notification material for the Bell Bay proposal did not disclose EMR as an environmental effect, despite EMR being a recognised pollutant under Tasmanian law. Representors raised EMR concerns, but the Planning Authority incorrectly stated that EMR is “not regulated” and undertook no assessment.

This omission prevented affected persons from understanding the environmental effects of the proposal and denied them the opportunity to make informed representations. The failure to disclose EMR is a democratic accountability issue that goes to the heart of the Inquiry’s Terms of Reference.

Inconsistent EPA and Council Decision Making

The Planning Authority referred the Bell Bay proposal to the EPA as a Level 2 activity, acknowledging its industrial nature. The EPA confirmed that the referral was made under Schedule 2. Despite this, the Planning Authority later treated the development as a low impact Utilities use, avoiding mandatory industrial codes.

This inconsistency demonstrates a lack of coordination between Tasmania’s planning and environmental systems. It also shows how proponents can benefit from regulatory ambiguity, with industrial impacts being recognised for EPA referral but ignored for planning assessment.

Hazardous Substances and Industrial Risk Not Assessed

The Bell Bay proposal includes 2.87 million litres of diesel and engine oil stored on site — well above the threshold for bulk petroleum storage. Hazardous materials management, bushfire hazard and emergency management plans

were deferred until after approval, preventing proper assessment of industrial risk and limiting public scrutiny.

AI data centres with large generator arrays and bulk fuel storage present significant fire, explosion and hazardous substances risks. These risks must be assessed before approval, not deferred.

Off Site Environmental Harm and Economic Burden on Neighbours

The Bell Bay facility's electrical systems are capable of generating extremely low frequency EMR that may cross property boundaries. The foreseeable need for neighbouring landholders to install shielding materials, window treatments or structural barriers represents a substantial economic burden.

This burden constitutes material environmental harm and, in some cases, serious environmental harm. The Planning Authority did not consider these impacts, demonstrating a systemic failure to protect neighbouring landholders from off site industrial effects.

Failure to Consider EMR Exposure Risks to Vulnerable Persons

The Bell Bay assessment did not consider EMR exposure risks to individuals with active implanted medical devices such as pacemakers, defibrillators and insulin pumps. National guidance recognises that industrial electrical systems may interact with such devices under certain conditions.

The absence of EMR modelling or mitigation conditions represents a failure to consider public health impacts, particularly for vulnerable persons.

Failure to Require Financial Assurance (Bond) for Rehabilitation and Decommissioning

A further systemic failure demonstrated by the Bell Bay assessment is the absence of any requirement for a financial assurance or rehabilitation bond. Large scale industrial energy projects ordinarily require a bond to ensure that the proponent, not the Tasmanian community, bears the cost of decommissioning,

site rehabilitation, hazardous materials removal and remediation of environmental harm.

The authorised development includes 276 diesel generators, bulk petroleum storage exceeding 2.8 million litres, high voltage electrical systems, transformers, switchgear, cooling plant, extensive cabling networks and large scale industrial buildings. These components will require substantial decommissioning works at end of life, including removal of hazardous substances, dismantling of electrical infrastructure, remediation of contaminated soils, and restoration of the site to a safe condition.

Despite this, no bond was imposed.

The failure to require a bond exposes the Tasmanian community to significant financial risk. If a proponent becomes insolvent, abandons the site, or fails to undertake proper rehabilitation, the cost of decommissioning would fall on the State or local government. This risk is amplified by the fact that several AI data centre proponents are early stage companies, private equity backed entities, or confidential proponents whose financial capacity is unknown.

The absence of a bond requirement is not an isolated oversight. It reflects a broader systemic issue: Tasmania currently has no consistent, statewide policy requiring financial assurance for large scale AI and data infrastructure, despite the industrial nature of these developments and the magnitude of their environmental footprint.

The Bell Bay case demonstrates that planning authorities are approving industrial energy projects without securing financial protection for the community. This gap in governance must be addressed to ensure that Tasmanians are not left with multi million dollar liabilities when these facilities reach the end of their operational life.

Active Litigation and Grid Constraints (September 2026 Update)

The systemic regulatory friction of treating these massive energy infrastructure projects as minor "Utilities" has already resulted in active legal disputes and grid allocation stalemates, proving that current state assessment frameworks are failing to manage this emerging sector:

- The EAA TASCAT Appeal (September 2026): Following the George Town Council's highly reluctant 6–1 approval for the 288 MW Bell Bay facility, Firmus Technologies formally lodged a TASCAT appeal to fight council-imposed operational restrictions on their proposed 276 backup diesel generators. Concurrently, the Environmental Awareness Association Inc. (this submitter) joined the TASCAT jurisdiction on 15 September 2026, launching formal cross-appeals to overturn the planning permit entirely. The EAA's appeal directly targets the project's misclassification under LUPAA, the omission of mandatory Statewide Planning Provisions (SPPs) Attenuation Code pathways, undisclosed electromagnetic radiation (EMR) emissions, and the unlawful deferral of hazardous substances and emergency management documentation until after the permit was granted. This litigation highlights the exact regulatory fragmentation where councils are forced to manage industrial-scale environmental effects within localised planning schemes.
- Hydro Tasmania Power Allocation Audit: The pipeline has not yet progressed to the federal EPBC gauntlet primarily because their energy supply is not legally secured. Hydro Tasmania is currently conducting an emergency grid audit, with an absolute decision deadline expected by late 2026 on whether the state can even allocate Firmus's requested 450 MW load across its three northern sites without destabilising domestic supply or compromising commitments to the upcoming Marinus Link interconnector.

Why This Case Study Matters for the Parliamentary Inquiry

The Bell Bay assessment is not an isolated incident. It is a microcosm of statewide systemic failure. The same issues will arise across all ten proposed AI data centres unless Tasmania reforms its approach to:

- **Land use classification** and industrial sizing.
- **Environmental assessment** pathways for massive energy footprints.
- **EMR regulation** and explicit boundary emission caps.
- **Hazardous substances assessment** prior to granting permits.
- **Public notification** transparency and democratic disclosure.
- **Cumulative impact assessment** under Section 5(5)(b) of EMPCA.
- **Coordination** between the state EPA and local planning authorities.
- **Protection of sensitive uses** and medically vulnerable persons.
- **Statewide infrastructure planning** and public "user pays" grid models.

The Inquiry's Terms of Reference require it to examine whether Tasmania's planning, environmental, and governance systems are capable of regulating AI data centres in a manner consistent with the public interest, environmental protection, and democratic accountability. The Bell Bay case study demonstrates that the current system is entirely inadequate.

Formal Recommendations to the Inquiry

To ensure that Tasmania's Resource Management and Planning System (RMPS), environmental protections, and public resource frameworks are capable of regulating the emerging hyper-scale digital infrastructure sector, this submission proposes the following structural, statutory, and policy recommendations to the Committee:

1. Mandatory Statutory Reclassification of Data Infrastructure under LUPAA

The Committee recommend that the Tasmanian Government amend the *Land Use Planning and Approvals Act 1993* (LUPAA) or the *Statewide Planning Provisions* (SPPs) to explicitly exclude digital infrastructure and AI data centres exceeding a continuous electrical load threshold of 5 megawatts from the definition of "Utilities." Such developments must be legally classified as a distinct, heavy industrial use class to ensure the mandatory and non-discretionary application of the SPPs Attenuation Code.

2. Prohibition of 'Piecemeal' Applications and Mandated Spatial Scope

The Committee recommend the introduction of a statutory mandate requiring that all planning applications for hyper-scale digital infrastructure encompass the entire macro-footprint of the development as a single, unified action under Section 3 of LUPAA. No planning authority or state regulator should accept or assess a data centre application unless it explicitly incorporates all required 220 kV or 110 kV grid expansions, substation cut-ins, and water-extraction networks.

3. Statutory Inclusion of Electromagnetic Radiation (EMR) as a Regulated Pollutant

The Committee recommend that the *Environmental Management and Pollution Control Act 1994* (EMPCA) be amended to explicitly list low-frequency and extremely low-frequency Electromagnetic Radiation (EMR) originating from industrial-scale conductors, transformers, and switchgear as a regulated physical emission and pollutant. This must trigger mandatory, independent plume modeling and boundary attenuation buffers as a prerequisite for any planning assessment.

4. Prohibition on the Post-Approval Deferral of Material Industrial Risks

The Committee recommend a strict legislative directive prohibiting planning authorities and the Tasmanian EPA from deferring hazardous substances management, bulk fuel storage safety plans, and emergency or bushfire evacuation protocols to post-approval or pre-commencement permit conditions for any high-load digital infrastructure project.

5. Implementation of a Statewide Mandatory Decommissioning and Rehabilitation Bond

The Committee recommend the immediate passage of legislation establishing a mandatory, statewide financial assurance framework for large-scale digital and industrial energy infrastructure. Proponents must be legally required to lodge an independently assessed rehabilitation bond prior to construction. This bond must fully secure the ultimate cost of end-of-life decommissioning, high-voltage asset dismantling, hazardous substance extraction, and complete soil remediation.

6. Volumetric Grid Allocation Freeze Pending Comprehensive Audits and REZ Delivery

The Committee recommend that the Tasmanian Government place an immediate statutory freeze or strict volumetric cap on all new or unallocated grid connection agreements for data centres drawing over 5 megawatts. This restriction must remain in place until Hydro Tasmania finalises its comprehensive state energy resilience audit and the state's proposed REZs are formally declared and operationalised to safely absorb such industrial loads.

Peer-Reviewed Tasmanian Health Studies and EMR Risks

Any assertion that Electromagnetic Radiation (EMR) from industrial-scale electrical arrays is "not regulated" and therefore exempt from spatial assessment directly ignores crucial, peer-reviewed public health research generated within

Tasmania itself. The systemic failure to require EMR modelling or boundary attenuation buffers for a 288-megawatt industrial electrical installation disregards the established scientific benchmarks set by Lowenthal, Tuck, and Bray (2007) in their landmark Tasmanian case-control study published in the *Internal Medicine Journal*.

Notably, the lead author, Professor Ray Lowenthal AO, served as the Director of the Department of Clinical Haematology and Medical Oncology at the Royal Hobart Hospital for nearly three decades and as a Clinical Professor at the University of Tasmania, giving this research extraordinary clinical and academic authority within the state.

Analysing 854 verified Tasmanian cases diagnosed between 1972 and 1980 and utilising individually matched controls by age and sex, Professor Lowenthal's team established clear, distance-based risk thresholds:

- Proximity and Risk Multipliers: The study demonstrated that adults who had ever resided within 50 metres of a high-voltage transmission line experienced more than double the risk of developing lymphoproliferative and myeloproliferative disorders compared to those who had always lived more than 300 metres away (OR 2.06; 95% CI 0.87–4.91).

- Extended Impact Zones: An elevated risk was also documented for individuals residing in the wider 50 to 300-metre zone (OR 1.30; 0.88–1.91), proving that physical emissions from high-voltage electrical infrastructure extend far beyond the narrow property easements traditionally relied upon by local councils.

- Vulnerability in Early Life: Most critically, the research exposed severe developmental vulnerabilities. Adults who had lived within 300 metres of a transmission line during the first 15 years of life exhibited a threefold increase in risk (OR 3.23; 1.26–8.29). For those exposed during early

childhood between birth and five years of age, the risk escalated to a nearly fivefold increase (OR 4.74; 0.98–22.9).

The authors formally concluded that despite the inherent limitations of retrospective data, these findings raise a credible, evidence-based possibility that prolonged residential exposure near high-voltage power lines, particularly in early life, significantly increases the risk of developing lymphoproliferative and myeloproliferative disease later in life.

By failing to require the application of the Statewide Planning Provisions (SPPs) Attenuation Code to the Bell Bay project, the planning authority has authorised a massive industrial infrastructure array without establishing whether its EMR plume complies with the 50-metre to 300-metre risk boundaries identified by Tasmania's foremost clinical oncological research. Exposing neighbouring landholders, local workforces, and the surrounding community to unmodeled, unmitigated industrial electrical fields—in direct contradiction to local medical evidence—constitutes a profound failure of the planning system's statutory obligation to minimise risks to human health.

Electromagnetic Hypersensitivity (EHS) and Australian Medical Regulation

Beyond the long-term oncological risks established in local literature, planning authorities must also address immediate clinical vulnerabilities, including Electromagnetic Hypersensitivity (EHS). While industrial proponents frequently claim that EHS lacks formal medical recognition, the regulatory validity of EHS within Australian jurisprudence and clinical practice has been rigorously affirmed by federal tribunals and national medical boards.

The baseline legal precedent for EHS in Australia was established in the landmark Administrative Appeals Tribunal (AAT) case *Alexander McDonald v Comcare* [2013] AATA 105. In that matter, a scientist employed by the

Commonwealth Scientific and Industrial Research Organisation (CSIRO) was awarded workers' compensation for complete disability resulting from intense sensitivity to wireless signals and office infrastructure. The leading expert witness who provided the pivotal clinical evidence in that foundational federal case was Tasmanian specialist general practitioner Dr Russell Cooper. Deputy President Constance accepted the clinical findings that the applicant's EHS condition was severely aggravated by electromagnetic fields (EMF) in the workplace, setting a powerful national legal precedent.

Dr Cooper's standing as a foremost clinical authority on EMR-related illness was further reinforced in the subsequent Queensland District Court precedent *Evans v NBN Co Limited* [2021] QDC 227. In those proceedings, Dr Cooper diagnosed an operative exposed to high-voltage infrastructure with severe EHS. Operating in parallel to the court case, an officer representing a state Chief Medical Officer lodged a formal professional misconduct complaint with the Australian Health Practitioner Regulation Agency (AHPRA), asserting that EHS was not a legitimate medical condition and that diagnosing it breached professional standards.

Following a comprehensive statutory review, AHPRA and the Medical Board of Australia dismissed the complaint, finding that the Tasmanian practitioner's clinical diagnosis of EHS was professionally sound and did not constitute misconduct. By repeatedly upholding Dr Cooper’s clinical evidence at both the federal tribunal level and through the national medical regulator, the Australian administrative framework has clearly recognised that EHS is a valid, diagnosable condition requiring strict regulatory consideration.

Direct Implications for Tasmanian Data Infrastructure

This combined legal and medical precedent carries direct statutory implications for the construction and operation of Tasmania's 1,150-megawatt AI data centre pipeline. The massive terminal substations, dense arrays of high-current conductors, and extensive localised 220 kV and 110 kV TasNetworks grid expansions required to support these facilities generate continuous, intense electromagnetic environments.

Under the *Land Use Planning and Approvals Act 1993* (LUPAA) and the *Environmental Management and Pollution Control Act 1994* (EMPCA), planning authorities and the Tasmanian EPA bear a non-delegable statutory duty to minimise risks to human health. Because federal precedents (*McDonald v Comcare*) and national regulators (AHPRA) have established EHS as a legitimate medical vulnerability, any lawful environmental assessment for a high-load data precinct must explicitly model and mitigate electromagnetic exposure risks.

Failing to require independent EMR/EMF plume modelling or refusing to enforce mandatory setback distances under the SPPs Attenuation Code leaves site personnel, utility workers, and nearby sensitive residential landholders entirely exposed. This constitutes a severe failure of regulatory precaution and a clear breach of the planning system's core obligations to public health.

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Misapplication of ARPANSA Guidance and Explicit Statutory Disclaimers

A central pillar of the systemic regulatory failure is the reliance on generalised, non-binding fact sheets from the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to justify the complete omission of localised EMR screening. Planning authorities routinely mischaracterise ARPANSA's broad baseline statements as definitive clearances of absolute safety. In doing so, regulators deliberately ignore the explicit legal and scientific disclaimers mandated by ARPANSA itself, which shift the burden of precaution onto local decision-makers.

ARPANSA's Explicit Disclaimers and Deferral to Medical Practitioners

The ultimate administrative failure identified in current Tasmanian planning assessments is the uncritical treatment of ARPANSA standards as definitive medical clearances of absolute public safety. Proponents routinely assert that if an industrial energy installation complies with generalised national reference levels, it is legally impossible for nearby occupiers to suffer actionable health

harm. This defence is entirely dismantled by reviewing the explicit, mandatory administrative and legal disclaimers published within ARPANSA's own official guidance sheets.

In its formal fact sheet titled *Electromagnetic Sensitivity*, ARPANSA addresses the phenomenon of Electromagnetic Hypersensitivity (EHS) and makes a critical administrative concession. While the agency maintains its standard physical posture regarding a lack of established linear causality below thermal limits, ARPANSA formally acknowledges that the health symptoms experienced by affected individuals are entirely real and can constitute a severely disabling problem. Most critically, rather than declaring these individuals safe under its guidelines, ARPANSA explicitly advises those affected to *"seek medical advice from a qualified medical specialist."*

This jurisdictional boundary is further codified in ARPANSA's public advisory framework, *Talk to a Scientist*. While the agency encourages the public to communicate directly with its physical and radiological experts on science-related queries, ARPANSA attaches a non-negotiable legal and operational disclaimer to this service, explicitly stating:

"Please note: Our experts are unable to provide medical advice. Medical questions should be directed to a medical practitioner."

These official statements create an inescapable regulatory trap for the Tasmanian EPA, state planning panels, and municipal councils. By its own formal admission, ARPANSA acknowledges that it is a physical and radiological science body—not a clinical, medical, or biomedical authority. ARPANSA possesses no statutory or clinical jurisdiction to evaluate, diagnose, or clear localised physiological risks to human health. Under its own operational protocols, it explicitly defers all clinical accountability to registered medical practitioners.

Because ARPANSA explicitly abdicates medical jurisdiction, its engineering guidelines cannot be used by a council to dismiss active medical evidence.

A local council cannot claim a 288-megawatt industrial power array is medically safe based on a restrictive ARPANSA standard when ARPANSA's own text explicitly states its documents cannot be used as medical clearance or advice.

The Jurisdictional Deferral of Medical Accountability

ARPANSA explicitly publishes a mandatory legal disclaimer across its public health and electricity infrastructure guidance portals, categorically stating: *"This information does not constitute medical advice or diagnosis."*

As a radiological and physical sciences body, ARPANSA acknowledges it possesses no clinical or biomedical jurisdiction to evaluate individual or localised patient vulnerabilities. Under its formal regulatory frameworks, ARPANSA explicitly defers the assessment of localised physiological risk and clinical conditions—such as EHS or medical device interference—to qualified medical practitioners.

Because the peak national medical regulator (AHPRA) and federal tribunals (*McDonald v Comcare*) have validated the diagnostic evidence of Tasmanian clinicians like Dr. Russell Cooper, a local council cannot lawfully use ARPANSA fact sheets to override active medical determinations. ARPANSA's disclaimer establishes that its generalised safety guidelines do not absolve Tasmanian planning authorities of their independent, non-delegable statutory duties under LUPAA and EMPCA to evaluate specific public health risks before granting a development permit.

The Formal Acknowledgment of Scientific Uncertainty

Furthermore, while industrial proponents frequently assert that extremely low frequency (ELF) magnetic fields from massive substations and transmission lines are entirely benign, ARPANSA's official *Electricity and Health* safety disclosures

explicitly admit the presence of unresolved epidemiological risk, stating: *"Some epidemiological studies have reported a possible association between prolonged exposure to ELF magnetic fields and increased rates of childhood leukaemia."*

ARPANSA's formal recognition of this scientific uncertainty directly engages the statutory operation of the Precautionary Principle within Tasmania's Resource Management and Planning System (RMPS). The philosophy of the precautionary approach mandates that *'where there are reasonable grounds for concern about a risk and there is scientific uncertainty, decision-makers must act with caution.'*

By authorising a 288-megawatt industrial infrastructure array directly adjacent to sensitive local boundaries without requiring a comprehensive, independent EMR/EMF plume modelling assessment, the George Town Council acted in direct contravention of the Precautionary Principle. Using ARPANSA fact sheets as a regulatory shield while ignoring ARPANSA's own explicit warnings regarding epidemiological links to childhood leukaemia constitutes a profound failure of administrative governance and a reckless abandonment of public safety standards.

Quantitative Exposure Baselines: ARPANSA Technical Report No. 142

To assess whether a 288-megawatt industrial infrastructure array poses a material risk of off-site environmental harm, planning authorities must look beyond theoretical models and review empirical government data. The physical reality of magnetic field propagation adjacent to electrical infrastructure is thoroughly documented by the government's own leading radiological authority in ARPANSA Technical Report No. 142, *Residential Power Frequency Magnetic Fields in Australia*.

This technical report confirms that residential properties located near electrical infrastructure—including transmission corridors, distribution transformers, and substations—experience heavily elevated magnetic field exposures. ARPANSA's field researchers documented front-gate measurements reaching as high as 11

μT (microtesla). Most critically, the report revealed that in multiple surveyed properties, the 24-hour average exposures within living areas and children's bedrooms exceeded 0.4 μT.

The 0.4 μT metric is a critical statutory and clinical benchmark. It is the exact threshold recognised internationally by the World Health Organization (WHO) and the International Agency for Research on Cancer (IARC) as the point where epidemiological studies document a doubling of the risk of childhood leukaemia, leading to the classification of power-frequency magnetic fields as a Group 2B possible human carcinogen.

The Failure to Scale Industrial-Grade Emissions

The empirical findings in Technical Report No. 142 are devastating to the regulatory validity of the Bell Bay planning assessment. The ARPANSA data was captured around standard, low-voltage residential and suburban distribution infrastructure. By contrast, the proposed 1,150-megawatt Tasmanian AI data centre pipeline requires an entirely different order of magnitude of electrical infrastructure.

As established in this submission, AI data centres will draw continuous, massive baseload currents directly from triple parallel 220 kV industrial transmission lines running via a newly constructed terminal substation on site. The physical scale of the magnetic field emissions generated by high-current industrial switchgear, massive transformers, and heavy 220 kV and 110 kV transmission lines will be significantly larger and extend much further than the suburban assets measured in ARPANSA's report.

Despite this known physical scaling, the planning authority required absolutely no prospective magnetic field mapping for surrounding homes, workplaces, or boundaries. Authorising an industrial-scale energy development while completely failing to account for documented exposure thresholds—where standard suburban assets already breach the 0.4 μT childhood leukaemia risk line—

constitutes a profound failure of regulatory oversight under Tasmania's Resource Management and Planning System (RMPS). It legally exposes neighbouring landholders to unmitigated off-site industrial effects and represents a reckless abandonment of public health safety standards.

Evidentiary Deficiencies: Non-Compliance with ARPANSA Technical Report No. 134

The total absence of prospective electromagnetic mapping in the Bell Bay and broader Tasmanian AI data centre assessments cannot be excused as a standard administrative omission. The peak national radiological body establishes a rigorous, nationally recognised protocol for assessing residential exposure to power frequency magnetic fields (50 Hz) under ARPANSA Technical Report No. 134 (ISSN 0157-1400).

This formal protocol is directly triggered by developments that alter the local electromagnetic profile. It explicitly mandates a multi-layered testing regime to ensure public safety, including:

- Systematic Spot Measurements: To map immediate peak magnetic field boundaries across surrounding properties;
- Continuous Long-Term Monitoring: To capture diurnal fluctuations and magnetic field propagation over 24-hour cycles; and
- Personal Exposure Tracking: To accurately evaluate localised health risks under highly varied power-use conditions using calibrated equipment and detailed documentation of the local electrical infrastructure.

These rigorous parameters are essential to evaluate potential health risks from electromagnetic fields generated by the massive terminal substations, switchyards, and high-voltage transmission assets required to support continuous industrial data loads.

Direct Breach of the General Environmental Duty (GED)

Under Section 23A of the *Environmental Management and Pollution Control Act 1994* (EMPCA), all developers and operators in Tasmania are bound by a strict General Environmental Duty (GED). The GED mandates that a person must not conduct an activity that 'could' cause environmental harm unless they take all reasonable and practicable measures to prevent or minimise that harm.

Failing to incorporate the established testing protocols set out in ARPANSA Technical Report No. 134 constitutes a direct, prima facie breach of the GED by AI data centre proponents. By completely ignoring this nationally recognised assessment framework, developers undermine the scientific integrity of their applications, and planning authorities completely neglect their statutory duty to protect residents from hazardous industrial exposure.

This omission compromises the transparency, scientific rigor, and evidence-based evaluation required under Tasmanian planning law. It establishes that the current approvals have been granted in a regulatory vacuum, entirely decoupled from national radiation protection standards.

Statutory Mischaracterisation: Electromagnetic Radiation as a Regulated Pollutant under EMPCA

A central pillar of the systemic regulatory failure identified in the Bell Bay assessment is the planning authority's assertion that Electromagnetic Radiation (EMR) is "not regulated" and therefore exempt from spatial planning controls. This claim represents a profound error of law that directly misinterprets Tasmania's primary environmental statute.

Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA) explicitly defines a "pollutant" to include:

"(a) a gas, liquid or solid; or (b) an odour; or (c) a organism; or (d) energy, including noise, a vibration, a heating effect, radiation or a electromagnetic field; or (e) a combination of pollutants..."

Because the massive terminal substations, heavy switchgear, and localised 220 kV and 110 kV TasNetworks grid expansions emit continuous power-frequency magnetic fields, they are legally emitting a statutory pollutant under Tasmanian law. Consequently, the total omission of EMR screening or boundary attenuation buffers under the Statewide Planning Provisions (SPPs) Attenuation Code violates the core mechanics of the Resource Management and Planning System (RMPS).

The physical, clinical, and regulatory boundaries of this statutory pollutant are thoroughly established across clinical and government benchmarks:

Empirical Exposure Baselines: ARPANSA Technical Report No. 142

The physical reality of this pollutant's propagation adjacent to electrical infrastructure is thoroughly documented in ARPANSA Technical Report No. 142 (*Residential Power Frequency Magnetic Fields in Australia*). ARPANSA's field researchers documented front-gate measurements reaching as high as 11 μT (microtesla), with 24-hour average exposures within children's bedrooms exceeding 0.4 μT. The 0.4 μT metric is a critical statutory benchmark, recognised internationally by the World Health Organization (WHO) as the point where epidemiological studies document a doubling of the risk of childhood leukaemia, leading to the classification of power-frequency magnetic fields as a Group 2B possible human carcinogen.

Mandatory Testing Protocols and Breach of the GED

The total absence of prospective electromagnetic mapping cannot be excused as an administrative oversight. The peak national radiological body establishes a rigorous, nationally recognised protocol for assessing residential exposure to power frequency magnetic fields (50 Hz) under ARPANSA Technical Report No.

134 (ISSN 0157-1400), mandating systematic spot measurements and continuous long-term monitoring under varied power-use conditions.

Under Section 23A of EMPCA, all developers in Tasmania are bound by a strict General Environmental Duty (GED) to take all reasonable and practicable measures to prevent or minimise environmental harm. Failing to incorporate the established testing protocols set out in ARPANSA Technical Report No. 134 constitutes a direct, prima facie breach of the GED by AI data centre proponents. By completely ignoring this nationally recognised assessment framework, developers undermine the scientific integrity of their applications, and planning authorities completely neglect their statutory duty to protect residents from a legally defined pollutant under Section 3 of the Act.

Biophysical Intrusion: Tissue Penetration and the Legal Reality of Physical Trespass

To fully comprehend how the omission of Electromagnetic Radiation (EMR) screening constitutes a catastrophic failure of the Resource Management and Planning System (RMPS), planning authorities must evaluate the unique biophysical behaviour of Extremely Low Frequency (ELF) magnetic fields. Proponents frequently attempt to minimise non-ionising radiation as an intangible or non-physical concept that can be ignored by localised planning schemes. This defence is entirely dismantled by the physical laws governing electromagnetic wave propagation.

ELF magnetic fields in the 1–300 Hz range—such as those emitted continuously by hyper-scale AI data centre power arrays, Battery Energy Storage Systems (BESS), heavy switchgear, and localised 220 kV and 110 kV transmission lines—penetrate biological tissue almost completely. Due to their exceptionally long wavelength and low attenuation properties, these fields are not blocked, shielded, or absorbed by standard residential building materials, clothing, or human skin.

According to formal documentation by the World Health Organization (WHO) and the International Commission on Non-Ionising Radiation Protection (ICNIRP), these fields pass through the human body entirely unimpeded. As they pass through, they interact directly with the body's internal bio-electrical systems, inducing measurable electrical currents within neural, muscular, and lymphatic tissue. This physical penetration operates continuously, and when sustained above the internationally recognised 0.3 microtesla (μT) to 0.4 μT threshold, it crosses the exact line linked in extensive epidemiological literature to a doubling of the risk of childhood leukaemia.

Direct Implications for Establishing Material Environmental Harm in Court

This biophysical reality provides indisputable, persuasive evidence that can be utilised within a judicial or tribunal jurisdiction (such as TASCAT) to establish that a data centre's operations cause a direct, physical intrusion across property boundaries:

1. *The Reality of Physical Impact:* Because ELF magnetic fields penetrate human tissue almost completely, it is a matter of scientific fact that the non-ionising electromagnetic radiation emitted by the developer's infrastructure will physically touch, enter, and alter the biological environment of neighbouring landholders and their occupiers. It cannot be legally characterised as a mere subjective or visual annoyance.
2. *Statutory Material Environmental Harm:* Under Section 3 of EMPCA, "environmental harm" is defined as any adverse effect on the environment, including human health, caused by a pollutant. Because radiation is a statutory pollutant under the Act, the unmitigated, unmodeled projection of a tissue-penetrating magnetic plume onto neighbouring properties constitutes a prima facie act of environmental harm.
3. *The Economic and Legal Burden of Evasion:* Forcing neighbouring landholders to live within an active, tissue-penetrating industrial field—or

forcing them to fund specialised, high-cost structural shielding treatments out of their own pockets—constitutes an unlawful shift of the industrial footprint's burden onto private citizens.

By classifying this development as a low-impact "Utilities" use to avoid the Statewide Planning Provisions (SPPs) Attenuation Code, the planning authority has effectively authorised an industrial operation to project a legally defined pollutant through the boundary fences and into the bodies of nearby residents without their consent, completely bypassing the statutory protections mandated by Tasmanian law.

The WHO Exposure Dichotomy: Acute 6-Minute Guidelines vs. Chronic 24/7 Exposure

A profound analytical and regulatory failure in current Tasmanian data centre planning assessments is the deliberate conflation of short-term acute safety limits with long-term chronic exposure thresholds. When industrial proponents or captured planning authorities assert that a facility’s projected magnetic emissions fall comfortably within international safety margins, they are routinely misapplying guidelines designed for entirely separate exposure scenarios.

The World Health Organization (WHO) explicitly separates electromagnetic radiation exposure into two distinct, non-interchangeable regulatory matrices:

1. Short-Term Acute Exposure Framework

The WHO documents established biological effects from acute, high-level exposures well above 100 μT (microtesla). The biophysical mechanism at this high intensity is acute and immediate: external extremely low frequency (ELF) magnetic fields induce localised electric fields and currents within the body that cause direct nerve and muscle stimulation, alongside alterations in nerve cell excitability within the central nervous system.

Crucially, under international radiological frameworks (such as ICNIRP), this 100 μT baseline is defined strictly as a "short-term" protective reference level, calculated over a standard 6-minute window. It is an occupational and emergency safety benchmark engineered solely to prevent immediate electro-physiological shock, muscle spasms, or central nervous system disruption. It possesses no scientific validity as a measure of long-term environmental safety.

2. Potential Long-Term Chronic Exposure Framework

Conversely, for residential and sensitive land-use borders surrounding industrial energy infrastructure, the WHO's dedicated public health documentation—*Electromagnetic Fields and Public Health: Exposure to Extremely Low Frequency Fields*—establishes an entirely different, evidence-based standard centred on chronic exposure.

Because electric fields are easily shielded by common materials like wood and metal, the primary vector of unmitigated chronic risk is the magnetic field, which is generated by the massive current demands of industrial machinery and high-voltage transmission assets. The WHO explicitly states:

- *The Carcinogenic Classification:* In 2002, the International Agency for Research on Cancer (IARC) published a formal monograph classifying power-frequency ELF magnetic fields as a Group 2B "Possibly Carcinogenic to Humans" agent.
- *The 0.3 μT to 0.4 μT Leukaemia Threshold:* The WHO explicitly notes that this classification is anchored into pooled analyses of international epidemiological studies demonstrating a consistent pattern of a two-fold (double) increase in childhood leukaemia associated with an average long-term exposure to residential power-frequency magnetic fields above 0.3 to 0.4 μT. A formal WHO Task Group subsequently concluded that subsequent data does not alter the status of this carcinogenicity classification.

- *The Rarity of Exposure*: Under standard background conditions, average magnetic field exposures above 0.3 μT in residential homes are rare, with estimates showing that only between 1% and 4% of children globally live in such environments.

Legal Application to Affected Landholders and Regulatory Failure

The placement of a 288-megawatt or 104-megawatt industrial infrastructure array directly adjacent to farming boundaries and sensitive residential uses forces nearby occupiers into the chronic exposure matrix. Affected landholders, agricultural labourers, and surrounding families will not be exposed to a temporary, 6-minute acute industrial field; they will be subjected to non-ionising electromagnetic radiation in the form of continuous magnetic fields long-term, 24 hours a day, 7 days a week, for the entire lifecycle of the facility.

Consequently, using the WHO's short-term 6-minute guideline of 100 μT to claim a data centre footprint is "safe" constitutes a unreliable application of public health metrics. Under the *Environmental Management and Pollution Control Act 1994* (EMPCA), any exposure assessment that fails to apply the chronic 0.3 μT to 0.4 μT threshold to long-term boundary environments represents a complete abandonment of the Precautionary Principle.

By failing to require independent, prospective magnetic field mapping to ensure surrounding properties are shielded from exceeding this 0.3 μT chronic leukaemia risk line, the planning authority has committed a fatal administrative error, failing its statutory duty to protect the public from a legally recognised pollutant under Section 3 of the Act.

Judicial Precedent for Imposing 0.4 µT Boundary Conditions: The Energex Precedent

To counter the systemic failure of the Bell Bay assessment, planning authorities do not need to invent new legal frameworks. The capacity and duty of a planning system to impose strict, numeric environmental boundaries on magnetic field emissions is heavily established in Australian planning jurisprudence by the landmark case *Energex Ltd v Logan City Council & Ors* [2002] QPEC 001.

In those proceedings before the Planning and Environment Court, a major electricity infrastructure provider challenged a local council's refusal to approve a substation development. The council's refusal was anchored directly into public health concerns regarding extremely low frequency (ELF) electromagnetic field exposure and its documented epidemiological links to childhood leukaemia.

The technical and legal findings established by Senior Judge Skoien carry profound implications for the regulation of Tasmania's 1,150-megawatt AI data centre pipeline:

1. *Judicial Recognition of Biophysical Intrusion:* His Honour explained the physical reality of the pollutant, noting that when electricity flows through a wire, a magnetic field is created that diminishes with distance. His Honour formally recognised the biophysical mechanism of tissue penetration, stating as a matter of fact that EMFs induce electric currents within the human body, and that the greater the magnetic field strength, the greater the induced internal current.
2. *Judicial Recognition of the 0.4 µT Hazard Line*: Drawing upon leading international scientific evidence (including the Doll Report and the IARC Group 2B classification), His Honour concluded that there was clear statistical evidence that long-term exposure of children to ELF magnetic fields greater than 4 milliGauss (equivalent to 0.4 microTesla) could be hazardous to their health.

3. *The Infrastructure Provider's Formal Concession*: Most critically, during the course of the hearing, the infrastructure provider (Energex) and the council reached a formal, binding agreement on the central technical issue: that long-term ELF exposure above 4 milliGauss (0.4 μT) posed a potential health hazard to nearby residents.
4. *Engineering Feasibility of Mitigation*: To resolve the appeal, the infrastructure provider formally accepted a strict, legally binding condition of development requiring that emissions not exceed this threshold. The agreed court-ordered condition explicitly mandated that magnetic field exposure at neighbouring properties within six metres of their boundaries must not exceed, on an average basis, 4 milliGauss (0.4 μT).

Federal Legislative Recognition of Adult Carcinogenicity: The Specialist Medical Review Council Precedent

The most profound regulatory failure identified in current Tasmanian data centre planning assessments is the uncritical reliance on generalised safety assertions by physical and radiological bodies like ARPANSA and ICNIRP. Proponents routinely utilise these guidelines to argue that there is "no substantiated scientific evidence" linking non-ionising electromagnetic radiation to adverse health effects below standard thermal limits, particularly in adults. This claim is invalidated by active Commonwealth administrative law and the formal determinations of the Australian Government’s own specialised medical tribunals.

In a landmark statutory review, the Specialist Medical Review Council (SMRC)—an independent federal body established under the *Veterans’ Entitlements Act 1986*—formally evaluated the epidemiological data surrounding extremely low frequency (ELF) fields. The SMRC reviewed the identical body of scientific literature relied upon by ARPANSA, but applied a rigorous, clinically focused standard of evaluation.

The SMRC formally declared that there is "sound medical-scientific evidence" establishing a causal connection between prolonged exposure to non-ionising radiation and the onset of chronic lymphocytic leukaemia (CLL) and death from chronic lymphocytic leukaemia. Following this declaration, the Repatriation Medical Authority (RMA) was mandated to amend its formal Statements of Principles (SOPs) to include exposure to non-ionising radiation as a definitive causative factor for adult leukaemia.

The Legally Binding Nature of Statements of Principles (SOPs)

The inclusion of non-ionising radiation within the RMA Statements of Principles represents an irrefutable legal precedent with direct implications for Tasmania's Resource Management and Planning System (RMPS):

1. **Equivalent to Act of Parliament:** SOPs determined by the RMA are not mere advisory guidelines or policy sheets; they are formal **legislative instruments** that carry the exact same legal weight as any statute passed by Parliament. They dictate the strict statutory criteria used to determine federal liability for disease, injury, or death.
2. **Formal Recognition of Causal Connection:** By enacting these legislative instruments, the Australian Government has formally codified into law that a causal connection exists between non-ionising radiation exposure and adult leukaemia.
3. **The Divergence of Medical vs. Physical Regulators:** The SMRC's determination exposes a critical divide in federal governance. While physical engineering bodies (ARPANSA/ICNIRP) limit their safety baselines strictly to acute, short-term thermal effects (such as tissue heating), the Commonwealth's peak medical review tribunals explicitly recognise the long-term biological and oncological risks of chronic exposure.

Direct Implications for the Standing Committee and TASCAT Jurisdiction

This federal precedent leaves the current Tasmanian approvals entirely exposed under administrative law. Under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), radiation is explicitly defined as a statutory pollutant. Furthermore, Section 23A binds all developers to a strict General Environmental Duty (GED) to minimise environmental and health harm.

A local council or state planning panel cannot lawfully claim that the health risks of an industrial-scale 288-megawatt electrical array are "speculative" or "unregulated" when Commonwealth legislative instruments explicitly recognise non-ionising radiation as a direct cause of adult leukaemia. By completely failing to enforce mandatory setback distances or independent EMR plume modelling under the SPPs Attenuation Code, the George Town Council has approved an industrial facility that will project a tissue-penetrating, federally recognised carcinogen across property boundaries and into neighbouring homes and workplaces 24/7 without a single regulatory restriction. This constitutes a catastrophic failure of precaution, an abuse of administrative discretion, and a direct breach of the planning system's core obligation to protect human life.

International Judicial Precedent: The Vatican Radio Case and the Reality of EMR Intrusions

The assertion by Tasmanian planners that Electromagnetic Radiation (EMR) is an intangible or unassessable phenomenon directly contradicts established international legal precedents. The capacity of a court of law to treat invisible electromagnetic plumes as a physical, hazardous intrusion across property boundaries was comprehensively tested and affirmed in the landmark Vatican Radio Case (*Public Prosecutor v. Tucci & Borgomeo*) before the Italian judicial system.

Following decade-long complaints from residents in the Cesano area north of Rome regarding the extreme power-frequency and radiofrequency fields

generated by the Santa Maria di Galeria transmitter array, formal judicial investigations were commenced. The critical legal and epidemiological parameters established in those proceedings include:

- Judicially Ordered Epidemiological Proof: The Italian courts commissioned a comprehensive study from Milan's National Tumor Institute, led by Professor Andrea Micheli, a prominent professor of cancer epidemiology. The 300-page report, analysing childhood leukaemia and lymphoma deaths, concluded that there was an *“important, coherent, and significant link"* between residential proximity to the high-power structures and an excess risk of childhood mortality. A separate, peer-reviewed public health study confirmed a statistically elevated incidence of childhood leukaemia within a 6-kilometre radius of the installation.
- The "Dangerous Showering of Objects" Doctrine: In May 2005, the court convicted and sentenced senior officials—including a Roman Catholic Cardinal—under Italian criminal provisions prohibiting the *"dangerous showering of objects"*. Because the Italian legal vocabulary at the time lacked a standalone term for electromagnetic wave pollution, the judiciary deliberately used this statute, ruling that projecting powerful, unmitigated electromagnetic waves onto neighbouring properties and into human bodies constitutes a physical casting of hazardous objects across boundaries.
- The 0.2 μT Precautionary Standard: Underpinning the regulatory environment of the dispute, Italy’s strict public health frameworks established a maximum continuous residential threshold for magnetic fields in the ELF range of 0.2 microtesla (μT). This standard reflected a rigorous application of the Precautionary Principle to protect schools, homes, and sensitive zones.

- The Overturning on Jurisdictional Sovereignty: While the evidentiary and scientific findings linking the EMR fields to childhood leukaemia were heavily tested and accepted by the court, the criminal convictions were ultimately set aside in 2011 on appeal solely because the Supreme Court ruled the transmission facility held extraterritorial sovereignty under the 1929 Lateran Treaty. The case was dismissed due to diplomatic immunity, not because the medical or physical evidence of EMR harm was found to be defective.

Systemic Implications for the Standing Committee and Tasmanian Regulators

The Vatican Radio precedent establishes that when a high-capacity electrical array projects unmitigated electromagnetic fields across a boundary fence, it is engaged in a physical, measurable act of environmental pollution.

This case removes any excuse for regulatory inaction by ARPANSA, local councils, or the Tasmanian EPA. It establishes that declaring a 288-megawatt industrial infrastructure array "safe" without running localised field modelling represents a reckless abandonment of public health safety standards.

By allowing Firmus Technologies to construct massive 220 kV terminal substations directly adjacent to active farming lands and sensitive local boundaries without specifying maximum microtesla limits, the George Town Council has effectively authorised the unmitigated "showering" of a legally defined pollutant into surrounding properties 24/7. This structural omission violates the *Environmental Management and Pollution Control Act 1994* (EMPCA) and exposes the state to profound liability risks

Admissions by the Architect of International Standards: The Dr Michael Repacholi Precedent

The ultimate failure of the current Tasmanian regulatory approach to AI data centre approvals is exposed by reviewing the published scientific findings of the very individuals who engineered modern international radiation guidelines. When industrial proponents or local planning panels cite the International Commission on Non-Ionising Radiation Protection (ICNIRP) or the World Health Organization (WHO) to dismiss long-term biological risks, they are deliberately concealing the formal admissions made by the founding leadership of those very organizations.

In a landmark collaborative study titled *The Sensitivity of Children to Electromagnetic Fields*, the lead author—Dr Michael Repacholi, the founding Chairman of ICNIRP and the former long-standing Head of the Radiation and Environmental Health Department at the World Health Organization—explicitly documented the unique vulnerability of developing biology to power-frequency fields.

Dr Repacholi's peer-reviewed research establishes critical, authoritative benchmarks that directly invalidate the casual regulatory treatment applied to Tasmania's 1,150-megawatt data centre pipeline:

1. The Link to Childhood Disease: Dr Repacholi formally acknowledged that changes in environmental exposure to electromagnetic agents are directly linked to real increases in the incidence of severe childhood diseases, explicitly identifying leukaemia and brain cancer.
2. Increased Biological Sensitivity: He documented that the international epidemiological consistency demonstrating a risk of childhood leukaemia near extremely low frequency (ELF) fields indicates a highly credible possibility that *"children may be more sensitive to radiation in some or all parts of the electromagnetic spectrum."* He further established that childhood diseases relevant to EMF exposure manifest themselves differently in developing biology compared to adults.

3. Proximity as a Direct Risk Predictor: Most damagingly to the current planning assumptions, Dr Repacholi's paper noted that because young children spend the vast majority of their time at home, *"residential exposure can be a sufficient predictor of individual exposure."*

The Administrative "Catch-22" for Tasmanian Regulators

The integration of Dr Repacholi's research creates an inescapable administrative trap for ARPANSA, the Tasmanian EPA, and local planning authorities. Proponents cannot simultaneously use ICNIRP reference levels to evade localised EMR modelling while ignoring the formal, published warnings of ICNIRP's founding Chairman regarding childhood leukaemia and embryonic vulnerability.

Under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), radiation is explicitly defined as a statutory pollutant. Furthermore, Section 23A binds all developers to a strict General Environmental Duty (GED) to take all reasonable and practicable measures to prevent or minimise environmental harm.

When the primary author of the world's non-ionising radiation frameworks publicly establishes that residential proximity to high-voltage infrastructure is a direct predictor of individual childhood leukaemia risk, a local council is acting with gross administrative negligence if it approves a 288-megawatt or 104-megawatt industrial infrastructure array without establishing strict boundary setbacks or requiring independent EMR plume mapping. Authorising these "AI factories" directly next to rural boundaries and sensitive uses, while failing to apply the SPPs Attenuation Code, completely undermines the scientific integrity of the Resource Management and Planning System (RMPS) and constitutes a direct breach of the planning system's core obligation to protect human life.

The ARPANSA Regulatory Blind Spot: The Complete Absence of an ELF Exposure Standard

The central administrative pillar relied upon by industrial proponents and captured local councils to evade environmental accountability is the blanket assertion that proposed data infrastructure "complies with national ARPANSA safety standards." This defence represents a profound jurisdictional misdirection. A rigorous examination of the Australian regulatory architecture reveals that the Commonwealth's peak radiological body possesses a catastrophic, systemic blind spot: Australia has no active, legally binding exposure limit standard to protect the public from Extremely Low Frequency (ELF) magnetic fields.

This regulatory vacuum was established at the inception of national standard-setting and continues to expose the Australian public to unmitigated risk:

The Historical Exclusion of ELF Fields (The 2002 Standard)

In the immediate wake of the landmark international scientific disclosures tested in the *Vatican Radio* case, ARPANSA finalised its foundational radiation guidelines. On 7 May 2002, the agency introduced *Radiation Protection Standard 3 (RPS 3)*, titled *Maximum Exposure Levels to Radiofrequency Fields — 3 kHz to 300 GHz*.

Critically, ARPANSA explicitly restricted the scope of this standard to frequencies above 3 kilohertz (3,000 Hz). By doing so, the agency completely excluded the Extremely Low Frequency (ELF) spectrum (0 to 3,000 Hz). According to ARPANSA's own official fact sheets, artificial ELF electric and magnetic fields are the dominant emissions *"associated with the generation, distribution, and use of electricity at the frequency of 50 Hz in Australia."* Consequently, the exact frequency range where power-frequency current flows—and where the doubling of childhood leukaemia risks is documented—was left entirely unregulated by the national standard.

The Current Framework: RPS S-1 (2021) Exclusions

This structural failure has been carried directly into the modern era. The active framework governing Australian emissions is the *Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021), RPS S-1 (Rev. 1)*. ARPANSA explicitly defines its regulatory boundaries as follows:

- The Scope of Protection: The standard strictly regulates Radiofrequency (RF) fields lying between 100 kilohertz (kHz) and 300 Gigahertz (GHz). Its exposure limits (such as the public cap of 10 W/m² at 3500 MHz enforced by the ACMA) are engineered solely to prevent excessive thermal heating effects from 5G arrays and telecommunications infrastructure.
- The Complete ELF Omission: The RPS S-1 standard does not provide any public or occupational exposure limits below 100 kHz.

Direct Implications for Tasmanian Planning Law

This technical reality creates an inescapable "Catch-22" for Tasmanian regulators and completely validates the Environmental Awareness Association Inc. (EAA) appeal. When the George Town Council or Firmus Technologies claim a 288-megawatt industrial power array is safe because it complies with "the ARPANSA Standard," they are citing a telecommunications heating standard that has zero legal or physical application to 50 Hz power-frequency magnetic plumes.

Because ARPANSA has completely neglected to legislate an ELF safety standard, there is no federal safety net. This regulatory vacuum forces an extraordinary statutory duty onto Tasmania's independent Resource Management and Planning System (RMPS):

1. The Triggering of State Responsibility: Because no federal standard exists to limit 50 Hz magnetic fields, local planning authorities and the Tasmanian EPA cannot rely on Commonwealth templates. They are

legally mandated to independently evaluate the pollutant under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA).

2. A Clear Failure of the General Environmental Duty (GED): Knowing that a 1,150-megawatt industrial data pipeline will draw continuous, unprecedented currents through localised 220 kV and 110 kV infrastructure—and knowing that the national authority has left this spectrum entirely unregulated—authorising these projects without imposing strict, numeric boundary conditions (such as the judicially established 0.4 µT limit in *Energex v Logan City Council*) constitutes gross administrative negligence and a direct breach of the General Environmental Duty (GED).

By treating an industrial energy project as a low-impact "Utilities" use to bypass the SPPs Attenuation Code, Tasmanian regulators have allowed developers to operate in a total legal vacuum, entirely decoupled from evidence-based radiation protection guidelines.

The Co-Carcinogenic Mechanism: Viral Activation and Cellular Aggravation

To provide the Standing Committee with a complete understanding of public health risk, the regulatory assessment must look beyond direct DNA strand breakage and examine documented co-carcinogenic mechanisms. Proponents routinely assert that non-ionising radiation cannot cause cancer because it lacks the photon energy to instantly displace electrons from atoms. This narrow physical defence is entirely invalidated by biological and epidemiological evidence showing that extremely low frequency (ELF) fields act as an environmental catalyst for the activation and reactivation of dormant oncogenic viruses in human tissue.

The Cancer Council of Australia documents that leukaemia is one the most prevalent cancers diagnosed among Australian children, accounting for approximately one-third (33%) of all paediatric cases, followed by central nervous system tumours (25%) and lymphomas (10%). Adjusting for population changes, the documented incidence rate of all childhood cancers combined in Australia has experienced a statistically significant increase of 35% between 1983 and 2014. This multi-decade escalation in paediatric malignancies directly tracks the rapid, ubiquitous proliferation of artificial electromagnetic infrastructure across the domestic environment.

The Retroviral and Chromosomal Nexus to Leukaemia

The Cancer Council of Australia explicitly recognises that individuals facing the highest risk of developing leukaemia include those exposed to intense radiation fields and specific oncogenic viruses, most notably the Human T-Cell Leukaemia Virus Type 1 (HTLV-1). HTLV-1 is a widespread human retrovirus infecting an estimated 20 million people globally, with approximately 90% of carriers remaining entirely asymptomatic throughout their lives. Furthermore, malignancies such as chronic myeloid leukaemia are genetically characterised by an abnormal chromosomal translocation known as the Philadelphia chromosome, which is clinically linked to radiation exposure.

The critical public health hazard is that dormant viral genomes and chromosomal structures within human cells are highly sensitive to external electrical and magnetic fields:

- The Activation of Latent Retroviruses: Peer-reviewed laboratory models have established that latent viruses in human tissue can be directly activated or reactivated by exposure to low-level extremely low frequency (ELF) magnetic fields. A prominent example is the Epstein-Barr Virus (EBV)—a herpesvirus inextricably linked to lymphomas and nasopharyngeal carcinomas—which has been repeatedly demonstrated to undergo viral replication and antigen expression when latently infected

human lymphoid cells are exposed to power-frequency ELF magnetic fields. [1]

- The 60 GHz Resonant Threshold: This bio-catalytic mechanism has been recognised by global health authorities for over four decades. As early as 13 March 1981, the World Health Organization published its foundational *Radiofrequency and Microwaves Environmental Health Criteria Monograph No. 16*. The WHO formally declared that electromagnetic fields within the 60 GHz to 120 GHz frequency region—the exact millimeter-wave spectrum utilised by modern high-density 5G and hyper-scale data infrastructure networks—possess the precise wavelength to influence macromolecules in biological systems. These high-frequency fields alter critical cellular functions, including enzyme systems, cell division parameters, cell membrane permeability, and direct virus activation or reactivation.

Statutory Implications for the Tasmanian General Environmental Duty (GED)

This dual-layered threat—where ELF magnetic fields pass through human tissue to activate latent lymphoid viruses like EBV, while interconnected high-frequency data infrastructure arrays interact with biological macromolecules—completely redefines the nature of off-site environmental harm under Tasmanian law.

Affected landholders, local workers, and surrounding residents are being forced into a continuous, 24/7 industrial exposure zone. This chronic exposure risks triggering the activation of asymptomatic viral loads, directly accelerating oncological pathways.

Under Section 23A of the *Environmental Management and Pollution Control Act 1994* (EMPCA), the General Environmental Duty (GED) requires proponents to deploy all reasonable and practicable measures to prevent environmental harm. Authorising a 288-megawatt or 104-megawatt industrial infrastructure array directly adjacent to sensitive local boundaries—while completely failing to require

independent biological impact modelling or enforcing the SPPs Attenuation Code—represents a total breakdown of regulatory precaution. It leaves the Tasmanian public entirely unprotected from a scientifically recognised mechanism of cellular and viral aggravation.

Extended Clinical Latency and the Fifty-Year Carcinogenic Horizon: The Haire Precedent

To completely insulate the planning system against long-term liability, the Standing Committee must recognise that the oncological harm caused by non-ionising electromagnetic radiation operates on an extended chronological horizon. Proponents and councils routinely point to the absence of immediate, short-term health sags following infrastructure commissioning to claim a site is safe. This superficial defence is entirely invalidated by Australian administrative jurisprudence, which recognises that EMR-induced malignancies carry multi-decade latency periods.

The baseline legal precedent governing the extreme latency of EMR-induced leukaemia was established by the Veteran's Appeals Division of the Administrative Appeals Tribunal in the landmark case *Haire v Repatriation Commission* [2001] AATA 28. In those proceedings, a war widow successfully sought statutory compensation for the death of her husband from leukaemia, directly linking the malignancy to electromagnetic radiation exposure that occurred half a century prior.

Reviewing extensive expert medical and epidemiological evidence, the Tribunal formally ruled at paragraph [41] of its decision that the following "raised facts" were judicially established:

1. Direct Proximity to Infrastructure: The operative worked in close physical proximity with equipment emitting both radiofrequency and microwave radiation bands during his operational service.
2. The Causal Nexus to Leukaemia: The Tribunal ruled as a matter of fact that *"hairy cell leukaemia could be caused or contributed to by radar exposure – specifically, exposure to electromagnetic fields."*
3. The Fifty-Year Latency Window: The physical radiation exposure occurred during the latter stages of World War II (circa 1945), yet the clinical onset of hairy cell leukaemia did not manifest until approximately 1995, ultimately resulting in fatal complications.

Direct Application to the EAA Appeal and Tasmania's 1,150 MW Data Pipeline

The *Haire* precedent carries profound statutory implications for the construction and operation of Tasmania's hyper-scale data centre networks. It legally codifies the reality that electromagnetic fields do not merely pose a transient hazard; they deposit a cumulative, long-term biological burden capable of triggering fatal haematological malignancies 50 years after the initial exposure.

This reality exposes a fatal flaw in the current approvals granted by the George Town Council and the state EPA:

The *Haire* precedent proves that the planning system's failure to enforce precautionary setback lines today creates a multi-generational public health time bomb that directly violates the state's Resource Management and Planning System (RMPS) core obligations to protect human life.

Chronic Neurodegenerative Degradation: The Alzheimer's-Type Dementia SOP Precedent

The structural failure of current Tasmanian data centre planning assessments extends far beyond a complete omission of oncological risk; it encompasses a reckless disregard for documented, long-term neurodegenerative harm. Proponents routinely attempt to limit the definition of public health risk strictly to immediate physical trauma or short-term thermal effects. This defence is entirely invalidated by active Australian administrative law and the formal legislative instruments governing chronic neurological exposure boundaries.

In a landmark statutory determination, the Specialist Medical Review Council (SMRC) and the Repatriation Medical Authority (RMA) enacted a formal Statement of Principles (SOP) concerning Alzheimer's-Type Dementia. Following a comprehensive review of clinical and neurological data surrounding power-frequency fields, the Commonwealth's peak medical review tribunal formally codified into law a strict exposure threshold for neurodegenerative risk:

- The 2 μT Neurodegenerative Threshold: The SMRC and RMA determined that prolonged exposure to an environmental magnetic field of 2 μT (microtesla) or greater constitutes a definitive causative factor in the onset and acceleration of Alzheimer's-type dementia.
- The Exposure Profile: The statutory instrument defines the high-risk exposure pattern as a continuous draw or presence of 2 μT for at least 8 hours per day, sustained over a cumulative period of 10 years.

The statutory relevance of this 2 μT neurodegenerative threshold to the current Tasmanian AI data centre pipeline is direct and quantifiable. Independent technical data captured by Electromagnetic Health and Safety—assessing specific magnetic field propagation profiles generated by hyper-scale industrial energy footprints—establishes that nearby landholders, agricultural workers, and residents will likely be routinely subjected to chronic magnetic fields far in excess of the 2 μT SMRC safety line.

Because these "AI factories" and their associated 220 kV and 110 kV transmission networks operate continuously—24 hours a day, 7 days a week—surrounding sensitive zones will not experience a transient fluctuation. They will be forced into a continuous, permanent industrial field that vastly outpaces the 8-hour daily exposure window required to trigger the onset of progressive dementia.

Under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), radiation and electromagnetic fields are explicitly defined as statutory pollutants. Furthermore, Section 23A binds all developers to a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to prevent or minimise environmental and health harm.

When a legally binding Commonwealth legislative instrument formally recognises that a 2 μT magnetic field causes irreversible brain tissue degeneration—and when independent testing proves the proponent's unmodeled infrastructure breaches this hazard line—authorising a development permit without establishing strict boundary setbacks or requiring the application of the SPPs Attenuation Code constitutes gross administrative negligence. The total absence of numeric microtesla caps in the current approvals represents a complete breakdown of administrative precaution, legally exposing the state to profound liability and violating the planning system's core obligation to protect human life.

Genetic Susceptibility and the Multi-Step Oncogenic Process: The Hemochromatosis Nexus

To fulfill its statutory obligations of precaution and public interest protection, the planning framework must evaluate the interaction between environmental pollutants and individual genetic vulnerabilities. Proponents routinely assess public health risks using generic, idealised physiological models. This uniform approach represents a profound failure of regulatory care, directly ignoring well-

documented genetic polymorphisms within the Australian population that dramatically amplify individual susceptibility to radiation-induced cellular damage.

There is a firm consensus within the clinical and scientific medical professions that the development of leukaemia is a multi-step oncogenic process involving multiple genetic alterations, specifically involving the transferrin receptor 1 gene, the hemochromatosis (HFE) gene, and key pathways regulating iron metabolism. While iron is an indispensable element required for baseline physiological activity and cellular proliferation, it possesses a dual-nature capable of causing severe oxidative stress and subsequent DNA damage. Because of this inherent toxicity, the human body relies on strict metabolic regulation mechanisms.

The introduction of an unmitigated industrial electromagnetic environment intersects dangerously with individuals carrying hereditary metabolic disorders:

- The MTHFR and HFE Polymorphic Vulnerability**:** Genetic polymorphisms in the methylene tetrahydrofolate reductase (MTHFR) genes—frequently found in individuals carrying hereditary haemochromatosis—are strongly associated in clinical literature with an elevated baseline risk for developing acute leukaemias and various hematological malignancies.
- The Oxidative Stress and Cellular Acceleration Loop: Current toxicological studies suggest that the dysregulation of iron metabolism and the subsequent intracellular accumulation of excess iron are intimately associated with the occurrence and rapid progression of leukaemia. Excess iron directly promotes leukemogenesis due to its pro-oxidative nature and its capacity to inflict serious damage upon DNA strands. Concurrently, active leukaemia cells acquire large volumes of iron to sustain their rapid, continuous growth and proliferation.

Direct Implications for Establishing Material Environmental Harm and Criminal Negligence

Hereditary haemochromatosis is exceptionally common within the Caucasian population of Australia. Consequently, forcing local farming families, nearby sensitive landholders, and site personnel into a chronic exposure zone represents an extraordinary risk multiplier.

As established across the technical benchmarks in this submission, Extremely Low Frequency (ELF) magnetic fields pass through human tissue entirely unimpeded, inducing measurable electrical currents in internal structures. When these induced electrical fields interact with a biological system already undergoing oxidative stress due to an HFE gene alteration or an MTHFR polymorphism, they act as a direct environmental catalyst that accelerates cellular degradation.

Under Section 23A of the *Environmental Management and Pollution Control Act 1994* (EMPCA), developers are bound by a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to prevent or minimise environmental and health harm. Knowing that a 1,150-megawatt industrial data pipeline will project continuous, intense magnetic fields across property boundaries 24/7—and failing to conduct independent genetic or biological risk mapping before granting a permit—constitutes gross administrative leniency.

Failing to enforce the SPPs Attenuation Code or establish numeric microtesla caps ignores the "Eggshell Skull" reality of public health, falling far short of the evidence-based evaluation required under Tasmanian environmental law.

Overwhelming Weight of Peer-Reviewed Evidence: The ORSAA Global Database Metrics

The primary defensive strategy deployed by data infrastructure proponents, and uncritically accepted by captured local authorities, is the assertion that

international scientific consensus views environmental levels of extremely low frequency (ELF) and radiofrequency (RF) fields as entirely safe. This assertion is a profound misrepresentation of the peer-reviewed literature. To test the validity of safety claims, regulators must evaluate the true weight of empirical evidence compiled by independent, cross-disciplinary academic bodies. [1, 2]

The definitive statistical baseline of global EMR literature is maintained by the Oceania Radiofrequency Scientific Advisory Association Inc. (ORSAA). Formed in 2015 by a panel of independent academics and researchers across Australia, ORSAA operates strictly as an un-funded, volunteer scientific organization without commercial or political conflicts of interest, offering an objective perspective free from the industry-backed influence frequently identified within physical engineering associations. [2, 3]

ORSAA maintains the world's largest categorised, peer-reviewed database of scientific studies examining the biological and health effects of non-ionising radiation. A comprehensive statistical analysis of the thousands of peer-reviewed papers within the ORSAA repository reveals a stark, undeniable reality that completely invalidates ARPANSA's conservative posture: [1]

- The 68% Biological Effect Consensus: An overwhelming 68% of all peer-reviewed studies within the global database explicitly document adverse biological effects or significant cellular interference occurring during exposure to artificial electromagnetic radiation. [1]
- The "No Effect" Minority: Conversely, only 24% of published studies document a complete absence of biological effects, with the remaining 8.5% recording uncertain or borderline outcomes. [1]
- The Failure of Standard Compliance Thresholds: Proponents frequently assert safety based on meeting standard Specific Absorption Rate (SAR) or power limits. Yet, within the ORSAA database, out of 669 rigorous experimental studies where tested exposures sat strictly *below* these

standard safety limits, 450 studies (70%) explicitly demonstrated significant biological harm.[1]

Administrative Relevance to Tasmanian Councils and the Committee Inquiry

To assist planning authorities in navigating this profound risk profile, ORSAA drafted an exhaustive, evidence-based Council Educational and Warning Protocol designed to explicitly apprise local governments of their exposure to public health liability when approving high-impost infrastructure. [1]

The ORSAA statistical matrix carries profound statutory implications under the *Environmental Management and Pollution Control Act 1994* (EMPCA). Under Section 3, radiation and electromagnetic fields are explicitly defined as statutory pollutants. Furthermore, Section 23A binds all developers to a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to prevent or minimise environmental and health harm.

When nearly 70% of the world's independent, peer-reviewed scientific literature documents that an emission causes direct biological interference and health degradation, a local authority cannot lawfully claim that the risks of a 288-megawatt industrial array are "unproven" or "speculative." By failing to enforce the SPPs Attenuation Code or requiring independent, localised EMR plume modelling, the George Town Council has ignored the overwhelming weight of scientific consensus. Granting development permits in direct defiance of a 68% risk threshold across global literature constitutes gross administrative negligence, completely undermining the scientific integrity of the Resource Management and Planning System (RMPS) and violating the core obligation to protect human life.

Clinical Classification of Physical Trespass: The ICD-11 "PF13" Assault Framework

The final, fatal breakdown of the current Tasmanian planning approach is the administrative assumption that projecting an unmitigated industrial electromagnetic plume onto neighbouring landholders is a minor, civilian property

dispute. Proponents routinely assert that as long as their emissions fall below ARPANSA's thermal thresholds, no legally actionable adverse health effect occurs. This narrow defence is entirely invalidated by the universal standards governing global medical diagnosis and clinical coding.

The global medical profession and clinical practitioners do not look to physical engineering bodies like ICNIRP or radiological safety agencies like ARPANSA to diagnose or treat patients. Instead, medical professionals worldwide are bound by the World Health Organization's *International Classification of Diseases – 11th Revision* (ICD-11). The ICD-11 represents the absolute global standard and mandatory diagnostic criteria used by clinicians to identify and code injuries, external causes of morbidity, and adverse health effects.

Crucially, the ICD-11 contains a specific, standalone medical diagnostic code that explicitly recognises non-consensual electromagnetic exposure as a direct physical violation:

- ICD-11 Code PF13: The global medical standard explicitly codifies "PF13: Assault by exposure to non-ionising radiation."
- The Clinical Definition of Assault: By embedding this code within the international diagnostic matrix, the World Health Organization and the global medical profession formally recognise that exposing a human body to non-ionising electromagnetic radiation without consent constitutes a clinically established adverse health effect and an act of physical assault.

Direct Implications for Serious Injury, Gross Violence, and the Tasmanian RMPS

The statutory relevance of the ICD-11 PF13 classification to the current Tasmanian 1,150-megawatt data centre pipeline is profound and immediate. As established by the physical laws of wave propagation detailed in this submission, Extremely Low Frequency (ELF) magnetic fields pass through human skin and

biological tissue almost completely, inducing internal electrical currents in neural, muscular, and lymphatic systems.

When a developer operates a 288-megawatt or 104-megawatt industrial electrical array without independent EMR modelling or boundary setbacks, they are projecting a tissue-penetrating statutory pollutant directly into the bodies of nearby residents 24/7. Because the global medical framework classifies this non-consensual exposure under code PF13, the operation of the facility involves the continuous, systematic projection of a clinically defined act of assault across property lines.

This cross-border biological intrusion carries severe legal liabilities:

1. Scope of Serious Injury: Forcing neighbouring landholders, regional agricultural workers, and children to live within an unmitigated industrial field—which induces internal currents and risks triggering chronic conditions like leukaemia or neurodegenerative decline—places corporate operators and their authorising agents squarely within the scope of common law liability for serious injury and gross violence.
2. Failure of the General Environmental Duty (GED): Under Section 23A of the *Environmental Management and Pollution Control Act 1994* (EMPCA), developers must take all reasonable and practicable measures to prevent environmental and health harm. Ignoring a universally recognised ICD-11 diagnostic hazard code while failing to apply the SPPs Attenuation Code represents a complete abandonment of regulatory precaution.

A local council cannot claim a development is safe based on the absence of a restrictive ARPANSA standard when the World Health Organization's primary medical textbook explicitly provides a clinical code for radiation assault. Authorising these permits without numeric boundary limits constitutes a catastrophic failure of administrative governance and a direct breach of the planning system’s core obligation to protect human life.

Electromagnetic Interference (EMI) with Life-Critical Medical Devices: The 3 V/m Compatibility Breach

The structural breakdown of the current Tasmanian planning framework reaches its most critical point in its complete failure to assess immediate, life-threatening Electromagnetic Interference (EMI) risks to vulnerable persons. Proponents routinely assert that as long as a facility's boundary emissions comply with generalised public reference levels, no actionable public health hazard exists. This defence is completely dismantled by checking the structural exclusions within the radiation guidelines themselves, compared against international medical engineering standards.

The Explicit Regulatory Deferral of Electronic Interference

Section 1.4 of the *Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021), RPS S-1* explicitly excludes electronic interference from its safety envelope, stating:

"The exposure limits specified in this Standard do not apply to other potential hazards of RF fields such as... interference to electronic equipment, which are the province of other Standards."

Furthermore, the International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines explicitly admit that standard public reference levels are entirely inadequate to protect individuals with active implants, stating:

"Compliance with the present guidelines may not necessarily preclude interference with, or effects on, medical devices such as metallic prostheses, cardiac pacemakers and implanted defibrillators and cochlear implants. Interference with pacemakers may occur at levels below the recommended reference levels."

The 3 V/m Medical Compatibility Standard vs. Industrial Reality

The international engineering and clinical baseline governing medical equipment safety is established by Standard No. IEC 60601-1-2 and the clinical parameters detailed by Hocking and Mild (2008). Under this global electromagnetic compatibility (EMC) framework, all active implanted and wearable medical devices—including cardiac pacemakers, implanted cardioverter-defibrillators (ICDs), insulin pumps, and cochlear implants—are engineered and certified to remain immune from malfunction *only* in ambient electric fields up to 3 volts per metre (V/m).

This 3 V/m line is the absolute boundary of guaranteed public health safety for device-dependent individuals. The physical reality of the proposed 1,150-megawatt Tasmanian AI data centre pipeline shatters this safety threshold:

- The Quantitative Overexposure: Independent engineering assessments indicate that the massive terminal substations, heavy switchyards, and localised 220 kV and 110 kV transmission lines required to feed these data facilities project ambient electric fields ranging between 10 V/m and 17.5 V/m onto adjacent properties, roadways, and work environments.
- The Life-Threatening Mechanism: As acknowledged in the peer-reviewed literature supporting national radiation databases, exposing cardiac tissue or active pacing devices to intense industrial electric fields (exceeding the 3 V/m barrier up to peak levels near 12 V/m) induces erratic electrical currents. This can cause severe electromagnetic interference, device malfunction, and life-threatening cardiac arrhythmias requiring emergency medical intervention.

Direct Implications for the General Environmental Duty (GED) and Local Government Liability

This data changes the legal landscape of the EAA's appeal before the Tasmanian Civil and Administrative Tribunal (TASCAT). By classifying the Bell Bay development as a low-impact "Utilities" use to avoid the Statewide Planning

Provisions (SPPs) Attenuation Code, the George Town Council has authorised an industrial facility that will project an unmodeled electric field up to five times greater than the certified safety threshold of a pacemaker or insulin pump directly across neighbouring property boundaries.

Under Section 23A of the *Environmental Management and Pollution Control Act 1994* (EMPCA), developers are bound by a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to prevent environmental and health harm. Knowingly constructing a massive industrial electrical array that physically overrides the life-support systems of vulnerable neighbours, aged residents, and local workers—while failing to enforce mandatory setback distances or structural shielding—constitutes a direct breach of the GED.

This regulatory omission creates an immediate public safety threat and exposes the state planning panels to profound administrative liability. It proves that current planning permits have been issued in direct defiance of established biomedical engineering baselines.

Official ARPANSA Medical Endorsements: Dr Bruce Hocking on "EMF Poisoning" and the 12 V/m Arrhythmia Barrier

The structural breakdown of the current Tasmanian planning framework reaches a critical failure point in its refusal to evaluate the direct clinical consequences of high-intensity electric fields. Proponents routinely attempt to characterise invisible voltage gradients as abstract concepts that carry no medical reality. This defence is entirely dismantled by reviewing the official medical guidance published directly by ARPANSA to complement its national standards, titled *Medical Aspects of Overexposure to Electric Fields*.

This authoritative supporting paper was authored by Dr Bruce Hocking, a prominent medical practitioner and the former Chief Health Officer for Telecom (now Telstra). Dr Hocking's clinical findings, endorsed via its publication on the ARPANSA website, detail the acute physiological destruction caused by high-voltage infrastructure and outline an absolute, numeric line where electric fields become directly life-threatening:

- *The 12 V/m Life-Threatening Cardiac Barrier*: Dr Hocking establishes that the primary acute health effect of 50/60 Hz electromagnetic fields is the induction of voltage gradients that directly elicit an action potential, causing the dangerous excitation of human nerve, muscle, and cardiac tissue. He documents an exceptionally sensitive scale of neurological and biological vulnerability, noting that alterations of synapse activity in the human brain occur at just 0.075 V/m peak, while the stimulation of a 20 µm nerve occurs at 6.15 V/m peak. Most critically, he establishes that human cardiac tissue becomes excitable at 12.0 V/m peak, explicitly warning that fields at or above this threshold *"may be stimulated to cause arrhythmias which may be life threatening. This requires emergency medical treatment."*
- *The Chronicity of Overexposure and Lack of Antidote:* Dr Hocking explicitly warns the medical profession that while electromagnetic energy is not cumulative like a heavy metal toxin, *"the more prolonged or recurrent an overexposure, the more likely there are to be health effects."* He formally establishes that there is no specific diagnostic test or clinical *"antidote for 'EMF poisoning'."*
- *Severe Neurological Morbidity*: He details that patients subjected to these intense fields require complex medical management for specific pathologies—including permanent cardiac arrhythmias, post-traumatic stress disorder (PTSD), cataracts, and compartment syndrome—requiring the prescription of heavy neurological medications such as tricyclic

antidepressants and gabapentin to manage persistent headaches and dysaesthesiae.

Direct Technical Application to the TasNetworks Infrastructure Footprint

The quantitative metrics detailed by the former Chief Health Officer carry immediate, devastating implications for the 1,150-megawatt Tasmanian data centre pipeline. As established in Section 3 of this submission, to deliver near 1-gigawatt of continuous power to facilities like Firmus Technologies' Bell Bay and Wesley Vale sites, network operators are forced to construct massive terminal substations and high-capacity overhead line loops.

Independent engineering modelling indicates that the ambient electric fields projected across adjacent properties, rural boundaries, and local roadways by these high-voltage industrial connections will reliably exceed the dangerous 12 V/m peak identified by Dr Hocking.

Under the *Environmental Management and Pollution Control Act 1994* (EMPCA), radiation is explicitly defined as a statutory pollutant. Furthermore, Section 23A binds all developers to a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to prevent environmental and health harm.

Knowing that an infrastructure footprint will project an electric field that breaches the 12 V/m cardiac threshold—risking the induction of fatal, un-antidoted cardiac arrhythmias in neighbouring landholders, local workers, and passing citizens—while completely failing to apply the SPPs Attenuation Code or enforce numeric voltage restrictions, constitutes gross administrative negligence. The total absence of mandatory electric field caps in the current permits represents a catastrophic failure of precaution and a direct breach of the planning system’s core obligation to protect human life.

Active Technical Research: The EAA Cross-Border Case Study and the 30-Metre Reality

To provide the Standing Committee with proactive, evidence-led oversight, the regulatory assessment must look beyond theoretical assertions and review active field data. The Environmental Awareness Association Inc. (EAA) is currently in the process of finalising a comprehensive, independent technical report commissioned through Electromagnetic Health and Safety. To establish a precise quantitative baseline for the macro-grid upgrades facing Tasmania, this active assessment utilises an empirical case study from Victoria, modelling a standard residence situated a mere 30 metres from a high-voltage corridor operating at a 3,000-megawatt (MW) capacity.

The preliminary findings of this cross-border simulation establish a severe, landscape-scale risk profile that directly exposes the total inadequacy of standard setback distances:

- The Massive Microtesla Plume: At full operational capacity, the physical current draw required to sustain a 3,000 MW load will subject an occupied structure at a 30-metre proximity to an Extremely Low Frequency Alternating Current Magnetic Field (ELF AC MF) exposure exceeding 23 μT (microtesla), alongside an Intermediate Frequency (IF AC MF) exposure of 1.84 μT.
- The 2.3-Kilometre Risk Horizon: Most damagingly to current planning assumptions, the technical assessment establishes that to achieve an ambient background magnetic field exposure level of 0.3 μT—the exact chronic exposure threshold designated by the World Health Organization (WHO) and IARC as doubling the risk of childhood leukaemia—an absolute physical buffer distance of more than 2.3 kilometres is required from the high-voltage alignment.

Direct Statutory Implications for the Tasmanian Pipeline

While this active case study models the physical outputs of a 3,000 MW mainland interconnector corridor, its findings carry direct, devastating implications for the construction and operation of Tasmania's 1,150 MW AI data centre pipeline. As raised in this submission, to deliver near 1-gigawatt of continuous power to northern data precincts, TasNetworks will be legally and physically forced to overhaul its regional high-voltage trunks. The physical scale of the magnetic field emissions generated by these required grid expansions will match the exact parameters documented in the EAA's active Victorian case study.

Under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), radiation and electromagnetic fields are explicitly defined as statutory pollutants. Furthermore, Section 23A binds all developers to a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to prevent environmental and health harm.

Authorising hyper-scale industrial footprints directly adjacent to sensitive farming lines and residential zones—while forcing human occupiers to live within a compressed 30-metre impact zone that exposes them to a continuous, tissue-penetrating magnetic plume far exceeding the 0.3 μT chronic leukaemia threshold—constitutes a flagrant breach of the GED.

The EAA's active technical report proves that current planning permissions have been granted in a dangerous regulatory vacuum, entirely decoupled from national radiation protection standards.

Common Law Nuisance, Permitted Evasion, and Economic Burden

The core systemic failure identified in the Bell Bay assessment is the administrative assumption that a local planning approval immunises an industrial development from causing actionable harm to neighbouring occupiers. Proponents routinely assert that if a facility achieves baseline technical

compliance with local planning permit conditions, nearby landholders cannot claim a material interference with their property rights. This defence is entirely invalidated by leading Australian common law precedent and the strict definitions of "material environmental harm" under Tasmanian law.

The Fallacy of Permit Compliance: The Uren Precedent

The principle that regulatory compliance cannot be used as a shield to justify the destruction of a neighbour's property rights was decisively affirmed by the Supreme Court of Victoria in the landmark case *Uren v Bald Hills Wind Farm Pty Ltd* [2022] VSC 145. In those proceedings, neighbouring landholders sought common law remedies against an infrastructure operator for actionable nuisance.

- The Inadequacy of Permit Compliance: The Court explicitly ruled that even if an infrastructure operator demonstrates complete, technical compliance with the noise or emission limits specified in its planning permit, this is not a determining factor in the law of nuisance. A planning permit is not a statutory license to commit a civil wrong.
- Acoustic and Physical Amenity: The Court held that continuous, high-volume industrial operations constitute a *"substantial interference with the acoustic and physical amenity of the neighbours' properties."*
- Failure to Take Practicable Precautions: The judiciary was highly critical of the operator's failure to implement flexible operational precautions—such as selectively shutting down specific high-impact arrays during critical nocturnal periods or funding comprehensive, localised physical attenuation at the dwellings of the affected neighbours.

Baseline for Non-Trivial Environmental Harm

While the *Uren* precedent focused heavily on acoustic nuisance, the migration of unwanted, tissue-penetrating non-ionising electromagnetic radiation (EMR) onto

neighbouring properties constitutes an identical, physical interference with property rights. Under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), "environmental harm" is explicitly defined as any adverse effect on the environment, including human health and safety, caused by a pollutant (which explicitly includes radiation and electromagnetic fields). Crucially, under Tasmanian law, environmental harm is legally defined as "material" if it involves actual or potential harm that is not trivial, or if it results in loss, property damage, or mitigation expenses exceeding the statutory threshold.

The physical reality of this material harm is explicitly quantified by the independent technical engineering frameworks commissioned on behalf of affected landholders in Victoria . To mitigate the continuous 24/7 migration of unmodeled industrial radiation fields across property fences in Victoria, an affected landholder obtained a formal engineering quotation to shield their land, totalling a staggering $14,636,983.50.

This multi-million dollar remediation cost carries profound statutory and judicial implications:

- Loss is Quantifiable and Non-Trivial: A physical intrusion that forces a private landholder to face a $14.63 million financial exposure simply to restore the reasonable, safe enjoyment of their own land is, as a matter of law, a severe, non-trivial, and massive material loss.
- Compulsory Application of the GED: Under Section 23A of EMPCA, developers are bound by a strict General Environmental Duty (GED) to take all reasonable and practicable measures to prevent or minimise environmental harm. Forcing private neighbours to shoulder a $14.63 million mitigation liability because a developer refuses to apply standard engineering shielding or establish numeric boundary buffers under the SPPs Attenuation Code constitutes a flagrant, actionable breach of the GED.

- Shielding quotations and assessments are underway and It is expected that neighbouring landowners in Tasmania will face similar economic burdens.

Macro-Settlement Exposure: Systemic Claims for Injurious Affection Across upgraded Corridors

The true scale of the financial exposure facing the Tasmanian Government is exposed by moving from an isolated property analysis to a macro-regional evaluation of the required infrastructure. Proponents frequently attempt to isolate data centres as standalone property lots to conceal the sweeping geographical footprint of their supporting networks. In reality, the true risk of injurious affection applies to an extensive network of properties adjacent to the required high-voltage transmission overhauls.

Under established land acquisition and planning law, injurious affection occurs where the execution of public infrastructure works—such as the massive substation tie-ins and line overhauls managed by TasNetworks—directly depreciates the market value of adjoining private land due to physical factors like intense electromagnetic fields, continuous acoustic noise, and landscape degradation.

The High Density of Affected Landholders

The 1,150-megawatt data centre boom requires rebuilding a significant portion of the State's electricity network. TasNetworks data indicates that upgrading the infrastructure around George Town and Bell Bay alone will require an estimated $370 million in transmission overhauls.

The active cross-border modelling being conducted by *Electromagnetic Health and Safety* based on the same lines as Victorian assessments will show that a standard residence situated in the vicinity of a high-capacity transmission corridor requires a 2.3-kilometre buffer zone to drop down to the WHO's 0.3 μT chronic

leukaemia safety threshold. When this 2.3 km risk horizon is mapped across Tasmania's planned data centre nodes, a serious regulatory conflict emerges:

- The Proximity Threat: Dozens of rural properties, multi-generational family farms, local workforces, and residential dwellings around Bell Bay, St Leonards, and Wesley Vale sit well within this 2.3-kilometre impact zone, often located mere tens of metres from the high-voltage alignments.
- The Multiplier Effect: The issue does not just affect immediate neighbours of the data halls themselves. It impacts every single landholder bounding the hundreds of kilometres of upgraded overhead transmission lines required to channel power from remote generation sites directly into these facilities.

Widespread Compensation Liabilities and the Evasion of 'User Pays'

Because the physical, tissue-penetrating magnetic fields will irradiate these properties 24/7—and because the global medical framework under WHO Code PF13 classifies non-consensual exposure as an act of physical assault—affected neighbours have a strong legal basis to demand that the State fund localised shielding treatments to safely enjoy their land.

The active research being conducted for the Environmental Awareness Association Inc. (EAA) shows that shielding private land from intense electromagnetic fields is an incredibly expensive engineering task. If the shielding costs for a single high-exposure property scale into millions of dollars, the cumulative cost across dozens or hundreds of affected neighbours creates a potential massive multi-million dollar liability for the Crown.

While the Tasmanian Government's *Statement of Expectations* mandates a "user pays" model for data centre developers, the current planning loopholes undermine this policy. By allowing councils to classify these installations as low-

impact "Utilities" to bypass the SPPs Attenuation Code, the planning system has allowed corporate proponents to externalise their environmental footprints. [1]

If TasNetworks proceeds with these major grid overhauls without enforcing mandatory boundary buffers, the State itself will be left legally liable to compensate a vast network of adjacent landholders for the injurious affection of their properties**.** The Tasmanian taxpayer faces a massive liability trap simply because regulators refused to enforce the basic precautionary protections mandated by Tasmanian environmental law.

The Psychological Diminution of Amenity: The Anderson Precedent and the General Environmental Duty

To accurately evaluate the scale of off-site environmental harm, planning authorities and the Standing Committee must reject the archaic notion that an industrial pollutant must cause instantaneous physical destruction to be legally actionable. In modern environmental jurisprudence, the psychological burden imposed upon landholders who are forced to live with the awareness that their property is being actively contaminated constitutes a direct, unlawful interference with the amenity and enjoyment of the land.

This foundational principle was established by the Supreme Court in the landmark decision *Anderson & Ors v PWM (Lyndhurst) Pty Ltd & Veolia Recycling & Recovery Pty Ltd* [2024] VSC. In those proceedings, the Court articulated critical boundaries governing the application of the General Environmental Duty (GED) that carry profound implications for the regulation of Tasmania's 1,150-megawatt AI data centre pipeline:

- Knowledge as Actionable Harm: The Supreme Court determined as a matter of law that a neighbour’s knowledge that their land is being actively penetrated by unmitigated industrial emissions unreasonably interferes

with their enjoyment of the land, constituting an adverse psychological impact that qualifies as a breach of the GED.

- The Proactive Nature of Precaution: The Court confirmed that the GED is a *"deliberately undemanding test"* for plaintiffs to trigger, mandating that a duty-holder must proactively account for both current and future potential uses of surrounding land. Regulators and developers cannot restrict their assessments to the status quo; they must mitigate risks *before* the harm matures.
- Third-Party Standing: The *Anderson* precedent firmly establishes that civil standing to enforce the GED is not the exclusive domain of state regulators. A neighbouring landholder possesses clear, independent standing to initiate civil actions because they hold a direct, proprietary interest in minimising the pollution of their land.

Direct Statutory Application to Tasmania's General Environmental Duty (GED)

While the *Anderson* decision evaluated the Victorian framework, its legal mechanics translate directly to the identical statutory architectures operating in Tasmania. Under Section 23A of the *Environmental Management and Pollution Control Act 1994* (EMPCA), all developers and grid operators are bound by a strict, non-delegable General Environmental Duty (GED) requiring them to take all reasonable and practicable measures to prevent or minimise environmental harm. Under Section 3 of the Act, radiation and electromagnetic fields are explicitly categorised as statutory pollutants.

Because Extremely Low Frequency (ELF) magnetic fields pass through human tissue and residential structures completely, the unmodeled projection of a 23 μT magnetic plume through boundary fences represents a permanent physical intrusion. Forcing Tasmanian farming families, local workers, and residential neighbours to live with the continuous awareness that a federally recognised carcinogen is penetrating their homes and bodies 24/7 induces severe,

unreasonable psychological distress. Under the *Anderson* baseline, this unmitigated exposure constitutes a clear, prima facie breach of the Tasmanian GED.

Civil Remedies and Enforcement Pathways under

If the Tasmanian planning panels and the EPA continue to fast-track these corporate footprints by misclassifying them as low-impact "Utilities" to bypass the SPPs Attenuation Code, affected landholders possess the direct statutory power to bypass regular planning channels and initiate aggressive civil litigation. Under Section 48 of EMPCA, any person with a proper interest may apply to the Court for a civil enforcement order to remedy a breach of the Act.

In a statement of claim before the courts, affected plaintiffs are entitled to seek a comprehensive prayer for relief against the proponents and state-owned grid operators**,** namely:

1. A Permanent Injunction: Restraining the Company from operating its high-voltage assets until it implements localised engineering controls to completely abate the electromagnetic trespass across property boundaries.
2. Orders for Remediation: Mandating the Company to fulfill its statutory GED obligations by either halting the emissions, re-routing the transmission loops away from sensitive zones, or installing localised Mu-metal or structural shielding within its own property lines.
3. Compensatory Retribution: Requiring the proponent to fully fund and compensate the affected neighbours for the multi-million dollar capital costs required to shield their land, ensuring the cost of this corporate environmental footprint is not unlawfully shifted onto the public grid or private citizens.

The *Anderson* precedent establishes that the state cannot hide behind permit compliance to justify a continuous biological trespass. If the Tasmanian Government continues to facilitate these uncoordinated grid overhauls, it faces the real prospect of a macro-settlement crisis, as a vast network of adjacent landholders invoke their statutory standing to protect their homes, their health, and the financial resilience of their communities.

Systemic Statutory Breach of Section 20A: The Council's Failure of "Best Endeavours"

The combined mechanics of Sections 3, 5, and 20A of the *Environmental Management and Pollution Control Act 1994* (EMPCA) expose a fatal, irreconcilable illegality in the Planning Authority's determination. By expanding the data centre precinct to absorb a 288 MW industrial infrastructure array without requiring localized electromagnetic radiation (EMR) screening or attenuation modelling, the George Town Council directly abandoned its explicit, non-delegable statutory duties.

The Planning Authority's defence that EMR emissions are "not regulated" by local planning schemes represents a profound error of law. Under **Section 3(1)** of EMPCA, the Parliament of Tasmania explicitly codifies "pollutant" to include:

*"energy, including noise, radioactivity and **electromagnetic radiation**... that may cause environmental harm."*

Furthermore, Section 3(1) establishes that any unmitigated projection of a pollutant across a boundary fence constitutes a prima facie **"environmental nuisance"** if it:

"unreasonably interferes with, or is likely to unreasonably interfere with, a person's enjoyment of the environment."

Because the proposed high-voltage switchgear, transformer infrastructure, and distribution cables emit tissue-penetrating extremely low frequency (ELF) fields, they are legally discharging a statutory pollutant. Forcing neighbouring agricultural operators and occupiers to live with an unmodelled electromagnetic plume constitutes an immediate environmental nuisance under the Act.

Triggering the Section 20A(2) Statutory Duty

The structural friction of the council's assessment arises directly from its misclassification of the use class. The Planning Authority referred the development to the EPA Board as a Schedule 2 industrial activity, recognizing its Level 2 footprints. However, within its subsequent property evaluation under LUPAA, the council treated the installation as a low-impact "Utilities" use to bypass the mandatory application of the SPPs Attenuation Code.

This administrative manoeuvring creates an inescapable statutory trap under Section 20A of EMPCA:

- If the development remains properly classified as a Level 2 industrial operation, it constitutes a "prescribed activity**"** under Section 20A(1)(a). The Planning Authority committed a fatal error of planning law by failing to apply mandatory industrial codes and ignoring Level 2 environmental constraints.
- Alternatively, if the council maintains that the development was lawfully assessed outside the scope of a prescribed Level 2 activity, it instantly falls under the absolute statutory mandate of Section 20A(2).

Section 20A(2) states unequivocally:

"In relation to activities other than prescribed activities, a council must use its best endeavours to prevent or control acts or omissions which cause or are capable of causing pollution."

By accepting generalized, non-binding physical guidelines and failing to require independent, site-specific EMR modelling, the council did not exercise "best endeavours". Rather, it chose a path of deliberate regulatory omission. Blindly approving a high-voltage industrial footprint while ignoring a legally defined pollutant is a direct, actionable breach of the council's core statutory duty under Section 20A(2).

Establishing Serious Environmental Harm via Mitigation loss

The scope of the environmental harm generated by the council's breach is explicitly scaled by Section 5 of the Act. Section 5(1) confirms that environmental harm encompasses *"any adverse effect on the environment (of whatever degree or duration)"*. Most critically, Section 5(2)(a)(iii) dictates that environmental harm must be legally treated as serious environmental harm if it results in actual loss or property damage exceeding ten times the threshold amount.

Under Section 5(4), the statutory threshold amount is set at $5,000, meaning any loss exceeding $50,000 triggers a mandatory finding of serious environmental harm. Section 5(3) explicitly defines "loss" to include:

"...the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent or mitigate the environmental harm..."

The physical reality of this statutory calculation is devastating to the validity of the permit. To shield their homes, agricultural lands, and families from the unmitigated, tissue-penetrating magnetic plume projecting across the boundary fences, affected landholders are obtaining formal engineering quotations for structural mitigation shielding that are expected to surpass the $50,000 serious harm threshold.

Because this expected defensive remediation cost represents a necessary expense to mitigate a Section 3 pollutant, it constitutes a massive, quantified

"loss" under Section 5(3). For example the Victorian quotation representing a mitigation loss of $14.63 million outstrips the $50,000 serious environmental harm threshold by more than 292 times.

Under Section 5(5), this serious harm is legally caused by the pollution regardless of whether the harm is a *direct or indirect result*, or whether it results from *the pollution alone or from combined effects*. By failing to exercise its best endeavours to control this emission, the council has facilitated an unlawful act of serious environmental harm, rendering the current development permit entirely void under administrative law.

Criminal Law Classifications of Physical Trespass: Statutory Assault under the Tasmanian Criminal Code

The profound failure of the current Tasmanian planning framework reaches its absolute regulatory breakdown in its refusal to evaluate the direct criminal liabilities arising from unmitigated industrial radiation plumes. Proponents routinely assert that technical compliance with generalised, non-binding physical reference levels—such as the ARPANSA Standard—shields an operator from legal liability. This claim represents a profound error of law. An administrative planning permit does not grant a private corporate entity a statutory license or lawful excuse to commit an indictable criminal offense against the person.

The physical reality of Extremely Low Frequency (ELF) magnetic fields and high-intensity electric fields—which pass through human skin and biological tissue completely to induce internal electrical currents—directly triggers the operation of the state's primary criminal statute, the *Criminal Code Act 1924* (Tasmania).

The Statutory Definition of Assault under Section 182

Under Section 182(1)(a) of the Tasmanian *Criminal Code*, an assault is formally defined as:

"...the act of intentionally applying force to the person of another, directly or indirectly, without his consent, or with his consent if the consent is obtained by fraud..."

Under Section 184, committing an assault is an indictable offense carrying a maximum penalty of 21 years' imprisonment. To secure a conviction for assault within the Tasmanian jurisdiction, the prosecution is not required to demonstrate gross violence or visible trauma; it must establish two fundamental elements:

- The Application of Force: The force applied need not be violent and can be as slight as a mere microscopic or physical touch. It can be applied directly by the body of the accused, or *indirectly* through the medium of a weapon, machine, or industrial instrument controlled by the accused.
- The Absence of Consent: The physical contact must occur entirely without the lawful consent of the recipient.

Radiation and High-Voltage Plumes as the "Application of Force"

The technical mechanics of non-ionising electromagnetic radiation (EMR) fit completely within the established common law and statutory definitions of the "application of force" under Tasmanian criminal jurisprudence.

Under Australian criminal law, the element of the "application of force" is no longer restricted to traditional mechanical or kinetic acts like a physical blow. In multiple statutory frameworks, Parliament has explicitly modernized this definition to recognize that projecting invisible waves of energy across a threshold—including electrical force or electric current—constitutes a direct physical trespass against the person.

This explicit legal boundary is formally codified across several major jurisdictions to handle electronic or environmental contamination:

- Victoria: Section 31(3)(a) of the *Crimes Act 1958* mandates that the "application of force" includes the application of "heat, light, electric current or any other form of energy."
- Queensland & Western Australia: Section 245(2) of the Queensland *Criminal Code* and Section 222 of the Western Australian *Criminal Code* mirror each other, explicitly declaring that "applies force" includes applying "electrical force... if applied in such a degree as to cause injury or personal discomfort."

By framing the definition this way, the law establishes that force does not need to be violent, visible, or mechanical to violate a person's bodily integrity. If an industrial asset projects an unshielded, tissue-penetrating electromagnetic field across a boundary line at an intensity that interacts with internal bio-electrical systems, it is legally forcing a physical alteration onto the recipient. Because other states explicitly include electrical force within their assault metrics, it removes any administrative excuse to treat multi-megawatt radiation plumes as abstract or non-physical events under common law definitions of force

An electric current passing through high-voltage transmission lines generates an invisible, powerful, and continuous electric and magnetic field. This field is a physical, measurable manifestation of kinetic and radiological energy.

The 3,000 MW capacity corridors and terminal substations required to feed Tasmania's 1,150 MW data pipeline will project intense fields—exceeding 23 μT and 17.5 V/m—directly across adjacent boundary lines. Because these ELF fields penetrate human biological tissue completely to excite central nervous systems and induce internal currents, the operation of the infrastructure involves the continuous, systematic projection of a physical force into the bodies of neighbouring residents without their consent.

Strict Criminal Liability and the General Environmental Duty (GED)

This biophysical intrusion completely dismantles the regulatory defence of administrative compliance. Proponents are operating an instrument—the high-voltage transmission network—that actively forces an un-consented biological change upon neighbouring occupiers. This physical contact directly tracks the World Health Organization's universal diagnostic criteria under ICD-11 Code PF13 ("Assault by exposure to non-ionising radiation"), proving that global medicine and Tasmanian criminal law are aligned: non-consensual radiation exposure is an adverse health effect and a physical assault.

This criminal risk carries immediate, devastating implications for the Tasmanian planning system:

- The Absence of Lawful Excuse: A local planning authority or council cannot grant a permit that overrides the *Criminal Code*. Because radiation is explicitly defined as a statutory pollutant under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), and because Section 23A binds all developers to a strict General Environmental Duty (GED) to minimise health and environmental risks, completely failing to enforce mandatory setbacks or numeric microtesla limits means the developer is operating without a valid lawful excuse.
- Recklessness as to Injury and Discomfort: Operating a massive industrial electrical array directly adjacent to occupied properties—knowing that the fields breach life-threatening cardiac thresholds (the 12 V/m barrier) and double childhood leukaemia risk lines (0.4 μT)—constitutes a state of criminal recklessness regarding the infliction of bodily injury, pain, and profound discomfort.

By treating an industrial energy project as a low-impact property "Utility" to bypass the SPPs Attenuation Code, Tasmanian planning panels have authorised a continuous criminal trespass against the person. Corporate operators, their executives, and the public officials who authorise these unmitigated footprints are

operating in gross violation of statutory precaution, exposing themselves to the full scope of civil injunctions under Section 48 of EMPCA and indictable prosecution under the *Criminal Code*.

Summary Restraint Interventions: Application of Section 106B of the Justices Act 1959

The legal exposure resulting from the unmitigated projection of tissue-penetrating electromagnetic fields (EMF) is not restricted to planning tribunal reviews or multi-year civil litigation. The inclusion of Section 106B of the *Justices Act 1959* (Tasmania) within this brief establishes an immediate, summary jurisdiction for affected landholders to seek punitive restraint orders directly against corporate operators, their executives, and complicit public officials.

Satisfying the Civil Onus for Property Damage and Injury

Under Section 106B(1), a court of summary jurisdiction is empowered to issue a binding restraint order where it is satisfied on the simple balance of probabilities that a person has caused, or has threatened to cause, *"personal injury or damage to property"*, and is likely to do so again.

The physical and clinical benchmarks compiled across this brief establish an undeniable evidentiary foundation that directly satisfies these statutory criteria:

- The Threshold of Personal Injury: As detailed across international clinical indices (WHO ICD-11 Code PF13 — *"Assault by exposure to non-ionizing radiation"*), the intentional project of a tissue-penetrating magnetic plume that excites neural tissue and overrides the 3 V/m compatibility safety lines of cardiac pacemakers constitutes an immediate adverse health effect and an ongoing bodily injury.
- The Threshold of Damage to Property: Under long-standing Tasmanian property law, property is not a static material mass; it is a legally protected

bundle of rights, including the absolute right to exclude unwanted physical forces. Projecting an environmental pollutant (EMPCA Section 3) across property fences that decreases background safety levels below the chronic 0.3 μT childhood leukaemia line directly degrades the physical utility and market value of the land. Forcing private landholders to absorb a quantified mitigatory loss simply to restore the safe enjoyment of their homes constitutes massive, non-trivial damage to property.

The Immediacy of Corporate and Individual Restraint

Because hyper-scale data centres and their supporting 220 kV and 110 kV transmission lines operate continuously—24 hours a day, 7 days a week—the unmitigated biological trespass is permanent. Once the infrastructure is activated, the developer is actively engaged in a systematic, recurring act of environmental contamination and physical intrusion.

Consequently, any affected landholder or regional occupant possessing a direct proprietary interest holds immediate standing to file an application under Section 106B(1)(a). Because the corporate operator is *"likely again to cause personal injury or damage to property"* every second the high-voltage assets remain online, the statutory criteria for summary restraint are completely fulfilled.

Furthermore, where a developer or public grid operator is placed on formal legal notice regarding these multi-million dollar property degradation costs and clinical cardiac risks, yet deliberately continues to fast-track construction, their actions fall squarely under Section 106B(1)(b) as an active, unmitigated *threat* to inflict injury and property damage.

An administrative planning permit issued by a council cannot immunise an operator from summary restraint under the *Justices Act 1959*. If the Tasmanian Government continues to facilitate these uncoordinated grid overhauls without enforcing mandatory boundary buffers, private citizens possess the direct power

to bypass the standard resource management pathways and use summary court orders to completely halt industrial operations at the property line.

The Upstream Footprint: Megawatt Permanent Magnet Wind Generation Liabilities

To comprehensively evaluate the cumulative impact under the *Environmental Management and Pollution Control Act 1994* (EMPCA), the Standing Committee must reject the narrow characterisation of AI infrastructure as isolated processing halls. Because the 1,150-megawatt pipeline consumes approximately half of the State's current energy surplus, it legally forces the rapid construction of upstream generation infrastructure—most notably massive, state-backed wind developments like Whaleback Ridge and Robbins Island.

The physical reality of these megawatt generation platforms introduces an unprecedented concentration of ultra-high-density permanent magnetic fields into the Tasmanian landscape, expanding the scope of off-site environmental nuisance.

The Quantitative Scaling of Upstream Material Emissions

Industrial data confirms that modern megawatt permanent magnet wind turbines operating in harsh marine and regional environments rely exclusively on sintered Neodymium-Iron-Boron (NdFeB**)** permanent magnets to achieve required generation efficiencies. Neodymium magnets are characterised as the strongest commercially available permanent magnetic material on Earth, possessing a maximum energy product rating between 35 and 52 MGOe—dramatically outstripping alternative industrial mediums like Alnico or Ceramic alloys.

Technical performance sheets reveal that the internal material properties of these industrial-grade arrays operate at a scale entirely unmodelled by state planning authorities.

The magnetic induction remaining inside a saturated N52 neodymium core reaches as high as 14,400 to 14,800 Gauss.

- The Absolute Microtesla Plume: When converted to standard radiological metrics, a material core operating at 14,400 Gauss generates an internal magnetic density of 1,440,000 microtesla

This extraordinary material density entirely reframes the regulatory calculation of environmental harm under Section 5 of EMPCA. While a single turbine's surface field diminishes with spatial distance, the deployment of hundreds of turbines across the North West and West Coast Renewable Energy Zones (REZs) establishes a massive, aggregated electromagnetic footprint.

Under Section 3(1) of the Act, radiation and electromagnetic fields are explicitly listed as physical pollutants. Furthermore, Section 5(5)(b) mandates that environmental harm must be evaluated based on whether it results from the pollution alone or from the **combined effects of the pollution and other factors**.

By fast-tracking data permits while decoupling them from the required upstream wind generation networks, the planning system ignores a massive landscape transformation. Forcing local rural workforces, adjacent agricultural environments, and native wildlife corridors to interact with an accelerated energy web anchored by generation arrays operating at 1,440,000 microtesla constitutes a direct failure of regulatory precaution.

The requirement to construct these intense permanent-magnet arrays solely to feed ten private digital factories creates a cumulative environmental burden that violates the council's duty to deploy its best endeavours under Section 20A(2) to prevent widespread environmental nuisance.

Peer-Reviewed Australian Epidemiological Evidence: The Hocking Precedent

The assertion by data infrastructure proponents that the public health risks of non-ionising electromagnetic radiation (EMR) are speculative or unproven within the Australian landscape is decisively dismantled by the nation's own foundational epidemiological literature. The systemic failure to enforce the Statewide Planning Provisions (SPPs) Attenuation Code or require independent radiofrequency plume modelling for hyper-scale data precincts completely ignores the landmark peer-reviewed findings of Dr Bruce Hocking et al. (1996), published in the *Medical Journal of Australia* (*MJA*, doi:10.5694/j.1326-5377.1996.tb138661.x).

Documented Risk Multipliers for Childhood Malignancies

Analysing multi-decade cancer incidence and mortality data (1972–1990) obtained directly from the Commonwealth Department of Human Services and Health, Dr Hocking's team evaluated populations across Northern Sydney exposed to continuous radiofrequency emissions from three towering broadcasting installations. The empirical data revealed severe, statistically significant risk multipliers directly correlated with proximity to the transmitters:

- Aggregated Leukaemia Incidence: For all age demographics, the rate ratio for total leukaemia incidence was significantly elevated at 1.24 (95% CI, 1.09–1.40).
- Paediatric Leukaemia Incidence: Among children, the rate ratio for leukaemia incidence escalated sharply to 1.58 (95% CI, 1.07–2.34).
- Paediatric Leukaemia Mortality: Most devastatingly, the rate ratio for childhood leukaemia mortality demonstrated a more than doubling of the risk, sitting at 2.32 (95% CI, 1.35–4.01).

- Childhood Lymphatic Leukaemia: For lymphatic leukaemia—the most prevalent paediatric malignancy—the rate ratio for mortality reached an extraordinary 2.74 (95% CI, 1.42–5.27).

The authors formally concluded that there is a clear, undeniable association between increased childhood leukaemia incidence and mortality and geographical proximity to radiofrequency transmitter arrays.

Explicit Recognition Within ARPANSA's Own Standards

The ultimate failure of the current Tasmanian planning approach is exposed by checking the text of the peak national radiological regulator's historical standard repository. The physical reality and clinical validity of the Hocking study is explicitly cited, summarized, and accepted by ARPANSA within its own *Radiation Protection Standard Series No. 3 (RPS 3): Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz*.

The inclusion of the Hocking study within the body of RPS 3 establishes that the peak national scientific authority formally acknowledges that proximity to continuous, high-capacity electronic transmitters is an active, epidemiologically verified vector for childhood cancer clusters.

Irreconcilable Conflict with the General Environmental Duty (GED)

A municipal council cannot claim it has exercised its **"**best endeavours" under Section 20A(2) of EMPCA if it grants a development permit for a 288-megawatt industrial processing factory while completely omitting localized radiofrequency and electromagnetic shielding. Knowing that the interconnected high-density 5G arrays and high-frequency data networks required to support the facility project continuous, non-ionising fields straight through boundary fences—and knowing that the nation’s peak medical literature has linked such emissions to a near threefold increase in childhood cancer mortality—authorizing these footprints without a single site-specific plume calculation constitutes gross administrative negligence. The Hocking precedent removes any regulatory shield, exposing the

State to massive liability for failing to safeguard vulnerable populations from an officially recognized carcinogen.

Sensitive use - Paediatric environments

Under Clause C9.0 (Attenuation Code) of the *Statewide Planning Provisions (SPPs)*, schools, early-learning facilities, and childcare infrastructure are explicitly codified as highly protected "sensitive uses". Apart from sensitive use in children residing in residences close to AI Data Centres and supporting infrastructure a spatial analysis of the three targeted industrial precincts exposes a high-density, systemic overlap where vulnerable paediatric environments sit directly within the macro-regional impact horizons of these hyper-scale facilities:

When industrial proponents or local councils assert that electromagnetic radiation (EMR) impacts are restricted to immediate boundary fences, they need to note spatial parameters of radiation epidemiology. The landmark Australian and international precedents relied upon within radiation safety literature **indicate** that continuous electronic emissions generate multi-kilometre risk horizons:

The Hocking Precedent (4 km Radius): Dr Hocking's peer-reviewed study in the *Medical Journal of Australia* documented a near threefold increase in childhood leukaemia mortality spanning an inner metropolitan radius extending out to 4 kilometres from the broadcasting source.

The Vatican Radio Precedent (6 km Radius): Judicially ordered epidemiological reviews and cancer registry monitoring accepted by international courts documented a statistically significant elevation in childhood leukaemia incidence spanning a 6-kilometre radius from the high-capacity infrastructure footprint.

Mapping these parameters across the Tasmanian pipeline reveals that the planning system has authorized a severe biological trespass:

At St Leonards: All three primary educational institutions sit explicitly inside the 4 km Hocking hazard radius, with Larmenier Catholic Primary located a mere 2.7 km from the unshielded 104 MW infrastructure core.

At Wesley Vale: The Wesley Vale Primary School sits at an alarmingly compressed 1.8 km proximity—well within the absolute epicentre of the 4 km Hocking line—while surrounding regional schools like Geneva Christian College fall squarely within the 6 km Vatican Radio macro-plume.

At Bell Bay: Even with the facility located at Long Reach, the sheer scale of the 288 MW array shifts the impact zone into a macro-regional bracket. The high-density schooling and early childhood learning infrastructure of George Town proper sit between 5.2 km and 5.8 km away, placing the entire regional student demographic within the 6 km Vatican Radio hazard boundary.

Constitutional Invalidity, Sovereign Human Rights Obligations, and the Imposition of "Severe Suffering"

The final, overarching breakdown of the current Tasmanian regulatory approach is the assumption that the State Government and its planning panels can exercise absolute statutory sovereignty to fast-track hyper-scale industrial energy footprints. Proponents routinely assert that as long as an operation complies with a localised state planning permit, the human rights impacts on affected citizens are legally irrelevant. This defence ignores the operation of the Australian constitutional framework and the supreme authority of Commonwealth criminal law.

The Jurisdictional Interface: Ratified Treaties and the Commonwealth Criminal Code

While Australia is a party to both the *International Covenant on Civil and Political Rights* (ICCPR) and the *Convention Against Torture* (CAT), these international instruments require domestic legislative incorporation to be enforceable in domestic courts (*Minister for Immigration v Teoh*). The Australian Parliament explicitly chose to achieve this domestic incorporation by embedding these human rights obligations directly into the *Criminal Code Act 1995* (Cth).

Consequently, protections against the intentional or reckless imposition of severe suffering are codified as absolute criminal boundaries across the Commonwealth:

- Section 274.2 (Commonwealth Torture Provision): Explicitly defines torture as the intentional or reckless infliction of severe physical or mental suffering on a person, where the conduct is engaged in by, or with the instigation or consent/acquiescence of, a public official.
- Division 268 (Crimes Against Humanity): Criminalises systemic acts of inhumane treatment, severe deprivation of physical liberty, and forced displacement or persecution directed against a civilian population.

Sanctioned EMR Exposure as the Imposition of "Severe Suffering"

The biophysical reality of the proposed 1,150-megawatt Tasmanian AI data centre pipeline—where continuous, tissue-penetrating Extremely Low Frequency (ELF) magnetic fields exceeding **23 µT** pass through biological structures completely to induce internal currents—directly crosses the threshold of "severe suffering."

As raised in the Victorian *Electromagnetic Health and Safety Case Study*, a residence or workplace situated 30 metres from a 3,000 MW capacity corridor is subjected to an unmitigated radiation plume so intense it requires a 2.3-kilometre buffer zone to drop down to safe international levels. Forcing multi-generational

farming families, local worker populations, and device-dependent individuals (relying on pacemakers or insulin pumps) to live within this compressed 30-metre impact zone renders these properties entirely uninhabitable.

Under long-standing Australian judicial interpretation, the state of "uninhabitability" caused by an unmitigated environmental pollutant is a direct marker of severe suffering, involving:

1. Existential Loss of Shelter and Safety: Forcing an individual to either abandon their home or remain trapped within an active, tissue-penetrating industrial field that breaches life-threatening cardiac thresholds (12 V/m peak) and doubles childhood leukaemia lines (0.4 μT).
2. Intense Mental Anguish and Sleep Disruption: As a matter of established criminal law, the manifestation of "severe suffering" does not require the instant projection of an open physical wound or visible trauma. As judicially recognized by the Court of Appeal in the landmark precedent *R v Ping* [2005] QCA 472, the legal definition of severe suffering encompasses *"physical, mental, psychological or emotional pain or suffering, whether temporary or permanent."* The judiciary formally affirmed that the induction of chronic, profound psychological trauma—such as clinically diagnosed anxiety, sleep deprivation, or severe stress disorders—constitutes a question of fact assessed based on context, duration, and biological impact.
3. Forced Relocation or Financial Ruin: Where landholders face catastrophic property value depreciation and cannot afford the cost required to install specialised defensive shielding, the State's failure to mitigate or accommodate this harm results in a forced, uncompensated displacement

The Section 109 Constitutional Conflict

This severe suffering carries immediate, potentially devastating implications for the Tasmanian Government, state utilities like TasNetworks, and local municipal bodies. Under common law principles established in *Northern Territory v Mengel*, public authorities face direct liability in tort where their actions cause foreseeable, unjustified damage, including the intentional infliction of serious psychological harm (*Grosse v Purvis*).

More critically, this creates an irreconcilable constitutional conflict. Section 109 of the Australian Constitution provides that when a law of a State is inconsistent with a law of the Commonwealth, the Commonwealth law shall prevail, and the State law shall, to the extent of the inconsistency, be completely invalid.

If the Tasmanian Government, the independent planning panels, or local councils utilise state planning exemptions under the *Land Use Planning and Approvals Act 1993* (LUPAA) or the *Environmental Management and Pollution Control Act 1994* (EMPCA) to permit conduct that inflicts un-consented, severe biological suffering on neighbouring landholders—effectively authorising an act of continuous physical assault under WHO ICD-11 Code PF13—those state instruments are acting to facilitate a breach of the Commonwealth *Criminal Code*.

A state planning permit cannot immunise a public official or a private corporation from a federal indictable offense. By misclassifying these "AI factories" as low-impact "Utilities" to bypass the SPPs Attenuation Code, Tasmanian regulators have not merely committed an administrative error; they have walked the state into a profound constitutional crisis, exposing public authorities to the full scope of federal criminal liability and civil injunctions under Section 48 of EMPCA.

Individual Liability for Misfeasance in Public Office and the Abrogation of Crown Immunity

The final administrative barrier routinely relied upon by regulatory authorities to justify their failure to enforce environmental protections is the assumption of

sovereign or corporate immunity. Public officials and municipal planners frequently operate under the false belief that their statutory decisions are entirely shielded from personal or financial litigation. This administrative confidence represents a profound misunderstanding of common law torts and the explicit limitations of statutory corporations under Tasmanian law.

If public officials fail to exercise their statutory powers to protect citizens from a legally defined pollutant after being presented with unambiguous evidence of risk, they expose themselves directly to the tort of misfeasance in public office. Characterised as the common law's only truly public tort, misfeasance can only be committed by those holding a public office, and occurs exclusively when office-holders misuse or deliberately fail to execute their public power.

The strict legal benchmarks governing this public tort were articulated by the High Court of Australia in the landmark precedent *Northern Territory v Mengel* (1995) 185 CLR 307. The High Court established that misfeasance covers intended or recklessly disregarded harms, focusing heavily on the officer's actual knowledge:

- The Element of Fault: Public officials and their corporate employers face direct liability where they act (or fail to act) beyond their lawful power and are actuated by 'malice' in the legal sense of intending to injure, or where they know their act is beyond power and know or ought to know that injury will follow.
- The Equivalence of Foreseeability and Duty: As stated at paragraph 63 of *Mengel*:

"...once foreseeability is accepted as a requirement in cases based on actual knowledge, it follows that the argument that a public officer is liable for misfeasance if the officer ought to know that he or she lacks power is... the same as saying that the officer is under a duty not to exceed his or her power if there is a risk of foreseeable harm."

This doctrine was subsequently reinforced by the House of Lords in *Three Rivers District Council v Bank of England [No 3]* [2003] 2 AC 1, which clarified that misfeasance requires either deliberate harm or knowingly illegal conduct in circumstances where the official suspected that the plaintiff would suffer harm and consciously and recklessly chose to run that risk.

The Primacy of Private Property: The Inadmissibility of the "Public Benefit" Defence

The final, systemic error permeating current Tasmanian regulatory frameworks is the utilitarian assumption that the individual, environmental, and physical rights of nearby landholders must be subordinated to the "greater good" of the state's digital and economic transition. When industrial proponents or local planning panels fast-track unmitigated 1,150-megawatt industrial energy footprints, they routinely argue that the prospective public utility or commercial advantage of an "AI factory" overrides localised property protections. This defence is entirely inadmissible under long-standing common law doctrines and the foundational principles of Australian jurisprudence.

The principle that the general public benefit cannot be used as a legal shield to justify an environmental nuisance or a violation of individual rights is deeply embedded in the common law. This doctrine was decisively established in the foundational precedent *R v Ward* (1836) 4 A. & E. 384, where a defendant on trial for creating a public nuisance (a causeway obstructing navigation) argued that the infrastructure was advantageous in a greater degree to other public uses, specifically by providing vastly superior landing facilities.

The Court explicitly rejected this argument, ruling that it is no justification in law that the inconvenience or harm caused to an individual or property is less than the broader public benefit derived from the infrastructure's existence. This strict

position has been continuously upheld across generations of Anglo-Australian jurisprudence:

- The High Court of Australia Baseline: In *McKell v Rider* (1908) 5 C.L.R. 480 at 482, the High Court formally affirmed this common law reality, confirming that statutory authorities and private developers cannot trade off the lawful rights of individuals against a generalised social or economic benefit.
- The Speculative Infrastructure Analogy: As illustrated by Lord Tenterden in *Rex v Sir John Morris* (1B. & Ad. 447), a developer cannot erect a causeway or convert an ordinary highway into a heavy rail link and justify the physical intrusion based on the speculative, future convenience of steam-boats or steam-carriages that they promise to establish. This speaks directly to the current Tasmanian scenario, where massive, immediate grid overhauls are being forced onto rural boundaries to feed a highly speculative pipeline of confidential digital footprints.

11.2 Blackstone's Doctrine and Property as a "Bundle of Rights"

This legal protection is anchored in the profound regard the common law holds for private property. As articulated by the preeminent jurist William Blackstone in the 18th century, a principle that remains fully valid within modern Australian law:

"So great moreover is the regard of the law for private property, that it will not authorise the least violation of it; no, not even for the general good of the whole community."

In modern property law and constitutional jurisprudence, "property" is not merely the physical dirt or the building envelope itself; it is the condition of being owned. Property is legally defined as a complex bundle of relationships constituted by an interconnected matrix of rights, powers, and duties. Crucially, these relationships do not exist solely between the owner and the land; they exist between the owner

and everyone else in the world, enforced as a right to exclude others from invading that space.

Under the *Ward* and *Blackstone* doctrines, forcing local farming families, nearby sensitive landholders, and multi-generational communities to live within a continuous, tissue-penetrating industrial field—or forcing them to fund a multi-million dollar defensive shielding installation out of their own pockets to safely enjoy their land—constitutes an unlawful violation of their property rights.

The State cannot invoke "public benefit" to legalise a civil nuisance, a material environmental harm, or a criminal trespass against the person. By misclassifying these developments as low-impact "Utilities" to bypass the SPPs Attenuation Code, Tasmanian planning authorities have inverted the law, attempting to treat corporate convenience as superior to the fundamental common law and statutory rights of the citizens of Tasmania.

International Judicial Precedent on Electric Field Risks: The 1 V/m Judicial Hazard Line

To counter the systemic failures of current Tasmanian infrastructure assessments, the Committee must look to leading international environmental jurisprudence. Proponents routinely attempt to isolate their public health defences strictly within magnetic field metrics, treating the accompanying high-voltage electric fields as a harmless physical phenomenon unless they cause an immediate thermal burn. This defence is entirely invalidated by modern European planning jurisprudence, which has heavily tested the clinical literature surrounding low-frequency electric field exposure.

The definitive legal benchmark establishing the active public health risks of low-frequency electric fields was handed down by the District Court of Gelderland (Netherlands) in the landmark decision *AWB-19-2184* (decided 18 December

2020). In those proceedings, the court conducted a rigorous judicial review of the underlying scientific literature to determine whether ambient electric field exposures below traditional regulatory reference levels could be legally categorised as safe.

Evaluating the evidence, the Court formally issued an historic judicial determination, explicitly ruling:

“In the opinion of the court, considering all arguments, with reference to scientific literature, it cannot be ruled out that even at a field strength lower than 1 V/m, and therefore also in the plaintiff's case, there are increased health risks.”

Direct Technical Application to the TasNetworks 220 kV/110 kV Footprint

The establishment of a judicially recognised 1 V/m hazard threshold changes the legal landscape for the Environmental Awareness Association Inc. (EAA) appeal and the Parliamentary Inquiry. It sets a strict, evidence-based benchmark for electric field safety that completely exposes the scale of industrial irradiation facing Tasmanian communities.

As established across the technical benchmarks in this submission, standard suburban residential distributions were measured by ARPANSA to project localised fields. However, to channel near 1-gigawatt of continuous power into northern data precincts, TasNetworks is forcing heavy 220 kV and 110 kV transmission lines and terminal substations directly against rural property lines. The independent shielding assessments commissioned for the EAA reveal a catastrophic exposure gap:

- The Quantitative Violation: The physical ground-level electric fields projected across neighbouring properties, family homes, and workplaces by these massive energy trunks will range between 10 V/m and 17.5 V/m.

- The Magnitude of Overexposure: This means that the State-sanctioned energy footprint will force everyday Tasmanian citizens to live and work within an electric environment that is ten to seventeen times greater than the 1 V/m threshold where international courts have ruled that increased public health risks cannot be ruled out.

Statutory Consequences under EMPCA and LUPAA

The *Gelderland* precedent proves that an electric field does not need to cross the 12 V/m acute cardiac arrhythmia line to be legally actionable; any continuous, unmitigated exposure that overrides the 1 V/m scientific hazard line constitutes a material public health risk.

Under Section 3 of the *Environmental Management and Pollution Control Act 1994* (EMPCA), radiation and electromagnetic fields are explicitly defined as statutory pollutants. Furthermore, Section 23A binds all actors to a strict General Environmental Duty (GED) to deploy all reasonable and practicable measures to minimise health and environmental harm.

By fast-tracking these corporate "AI factories" under a low-impact "Utilities" classification to bypass the SPPs Attenuation Code, the planning system has authorised a continuous biological trespass. Permitting a facility to project an un-shielded 17.5 V/m electric plume straight through boundary fences—in direct defiance of international judicial warnings—constitutes gross administrative negligence and a clear breach of the GED. It leaves public officers personally exposed to civil enforcement actions under Section 48 of the Act for failing to protect the physical integrity of Tasmanian citizens.

Peer-Reviewed Tasmanian Epidemiological Evidence: The Lowenthal Study

The planning authority’s assertion that Electromagnetic Radiation (EMR) from industrial-scale high-voltage transmission lines is "not regulated" and therefore

exempt from spatial assessment directly ignores crucial, peer-reviewed public health research generated within Tasmania itself.

The systemic failure to require EMR modelling or boundary attenuation buffers for 288-megawatt industrial electrical installations disregards the established scientific benchmarks set by Lowenthal, Tuck, and Bray (2007) in their landmark Tasmanian case-control study, *"Residential exposure to electric power transmission lines and risk of lymphoproliferative and myeloproliferative disorders: a case–control study,"* published on 2 June 2007 in the *Internal Medicine Journal* (doi.org).

Notably, the lead author, Professor Ray Lowenthal AO, served as the Director of the Department of Clinical Haematology and Medical Oncology at the Royal Hobart Hospital for nearly three decades, and as a Clinical Professor at the University of Tasmania. This research carries extraordinary clinical, academic, and sovereign authority within the state, having been independently funded by local medical bodies, including the David Collins Leukaemia Foundation, the Clifford Craig Medical Research Trust, and the Royal Hobart Hospital Medical Research Foundation.

Analysing 854 patients diagnosed with lymphoproliferative disorders (LPD) or myeloproliferative disorders (MPD)—including leukaemia, lymphoma, and related conditions—aged 0–94 years comprising all cases diagnosed in Tasmania between 1972 and 1980, and utilising individually matched controls by age and sex, Professor Lowenthal's team established clear, distance-based risk thresholds:

- Proximity and Risk Multipliers: The study demonstrated that adults who had ever resided within 50 metres of a high-voltage transmission line experienced more than double the risk of developing these hematological malignancies compared to those who had always lived more than 300

metres away (Odds Ratio [OR] 2.06; 95% Confidence Interval [CI] 0.87–4.91).

- Extended Impact Zones: An elevated risk was also documented for individuals residing in the wider 50 to 300-metre zone (OR 1.30; 0.88–1.91), proving that physical emissions from high-voltage electrical infrastructure extend far beyond the narrow property easements traditionally relied upon by local councils.
- Vulnerability in Early Life: Most critically, the research exposed severe developmental vulnerabilities. Adults who had lived within 300 metres of a transmission line during the first 15 years of life exhibited a threefold increase in risk (OR 3.23; 1.26–8.29). For those exposed during early childhood between birth and five years of age, the risk escalated to a nearly fivefold increase (OR 4.74; 0.98–22.9).
- The Tasmanian Historic Cohort Climax: Most damagingly to the planning authority's defence, the authors documented that these statistical associations were significantly strengthened when the analyses were repeated exclusively for the 201 pairs with entirely Tasmanian residential histories.

The authors formally concluded that despite the inherent limitations of retrospective data, these findings raise a credible, evidence-based possibility that prolonged residential exposure near high-voltage power lines, particularly in early life, significantly increases the risk of developing lymphoproliferative and myeloproliferative disease later in life.

By failing to apply the Statewide Planning Provisions (SPPs) Attenuation Code to the Bell Bay project, the planning authority has authorised a massive industrial infrastructure array without establishing whether its EMR plume complies with the 50-metre to 300-metre risk boundaries identified by Tasmania’s foremost clinical oncological research. Exposing neighbouring landholders, local workforces, and

the surrounding community to unmodeled, unmitigated industrial electrical fields—in direct contradiction to local medical evidence—constitutes a profound failure of the planning system's statutory obligation to minimise risks to human health.

Atmospheric Synergy: Corona Discharge, Diesel Soot, and the Charged Aerosol Delivery Vector

To fulfill its statutory obligations of precaution and public interest protection, the planning framework must evaluate how separate industrial emissions interact to create a heightened, cumulative threat to human health. Proponents and local planning panels routinely treat the data centre's physical structures, its high-voltage power lines, and its backup diesel generators as isolated, non-interacting components. This fragmented approach represents a catastrophic failure of scientific assessment, directly ignoring the documented synergistic interaction between corona discharge ions and particulate air pollution.

The atmospheric physics governing the environment around high-voltage alternating current (AC) infrastructure is thoroughly detailed by Matthews et al. (2024) in *Journal of Physics: Conference Series* (2702 012011). High-voltage transmission lines continuously emit electrical charges into the atmosphere via corona activity and discharge. These newly emitted air ions interact dynamically with surrounding aerosol populations, transferring their electrical charge to the aerosols via a recognised quasi-one-dimensional model of ion-aerosol interaction.

The empirical field data and potential gradient (PG) measurements reviewed by Matthews et al. establish two critical technical realities:

- The 1-Kilometre Electrical Alteration Corridor: Once charge transfer occurs, the electrically modified aerosols remain the dominant carriers of space charge several hundred metres downwind. Continuous PG measurements document increased field strength and extreme space-

charge variability at distances exceeding 800 metres to 1 kilometre from AC high-voltage lines.

- Concentration on Respirable Particles: The excess electrical charge generated by the infrastructure does not dissipate harmlessly; it becomes heavily concentrated on localised airborne aerosols, physically altering the airborne electroactivity profile of the region.

The Synergistic Acceleration via Data Centre Diesel Generators

The introduction of hyper-scale AI data infrastructure into this electrical environment creates a highly dangerous compounding effect. As raised in the active Environmental Awareness Association Inc. (EAA**)** TASCAT appeal[1], the approved 288-megawatt Bell Bay facility incorporates an unprecedented array of 276 industrial backup diesel generators. The routine testing and operational cycling of these generator arrays project immense volumes of fine particulates, soot, and chemical aerosols into the local atmosphere.

This heavy particulate load directly amplifies the transmission line risk through a precise biochemical pathway:

1. The Generation of "Charged Vehicles": The data centre's diesel generators dramatically raise the density of fine aerosols available in the immediate and downwind environment. Under the Matthews framework, these additional soot particles act as immediate receptors for the corona-generated ions bleeding from the adjacent 220 kV and 110 kV grid expansions.
2. The Sidaway Particulate Nexus: The profound danger of this interaction within the Tasmanian jurisdiction is explicitly established by Sidaway (2008) in his clinical commentary published in the *Internal Medicine Journal*. Sidaway reviewed the landmark Tasmanian case-control study by Lowenthal et al. (2007), which documented a significant association

[1] See Attachment 1 – EAA appeal to TASCAT

between power line proximity and lymphoproliferative and myeloproliferative disorders (LPD/MPD)—an association that was uniquely *strengthened* in patients who had never resided outside Tasmania.

3. The Topographical Trap: Sidaway documented that Tasmania's distinctive valley topographies and meteorological inversion layers historically favor heavy particulate accumulation (such as wood smoke in Launceston). He established that these high atmospheric particulate loads interact directly with corona-discharge air ions to produce an elevated concentration of respirable, multiple electric charge-carrying aerosol "vehicles."

By generating an artificial plume of diesel soot directly beneath high-voltage transmission lines, the data centre developer is actively multiplying the number of highly charged, respirable vehicles capable of carrying toxic electrical states deep into the lungs and bloodstreams of neighbouring populations.

Request for opportunity to appear

Given the technical complexities of these submissions the Environmental Awareness Association Inc. (EAA) requests the opportunity to appear before the Standing Committee on Government Administration A to provide oral and technical evidence in support of this submission.

Attachment 1: Environmental Awareness Association Inc. Appeal lodged with TASCAT concerning the Firmus Bell Bay AI Data Centre.

TASCAT
TASMANIAN CIVIL & ADMINISTRATIVE TRIBUNAL

Tasmanian Civil & Administrative Tribunal
Phone: 1800 657 500
Email: tascat@tascat.tas.gov.au
Web: www.tascat.tas.gov.au

General review form

This form is used where you wish to appeal or have reviewed a decision of a decision-maker such as a government agency or statutory authority.

File Number: _____
Office use only

1. Parties

Applicant:	**ENVIRONMENTAL AWARENESS ASSOCIATION INC.**
Respondent:	**First respondent - GEORGE TOWN COUNCIL (planning authority)** **Second respondent – FIRMUS TECHNOLOGIES PTY LTD (proponent)**

2. Legislation and Decision Details

Specify the Act and section giving jurisdiction to the Tribunal.

This is an application under the:	Section 61 of the *Land Use Planning and Approvals Act 1993*.
Date of the decision you wish to have reviewed:	25 August 2026
Date you received notification of the decision:	27 August 2026
The reference number of the order or decision:	Development Application 2026/29

If the dispute relates to a property, please provide the address of the property and Certificate of Title reference number:

Lot 1 East Tamar Highway, Long Reach (PID 2525030)

YOU MUST ATTACH A COPY OF THE DECISION/ORDER THAT YOU RECEIVED TO THIS FORM.

3. Orders Sought

The Appellant seeks orders that:

1. The appeal be allowed.
2. The decision of the George Town Council dated 25 August 2026 granting a permit for DA 2026/29 be set aside.
3. Alternatively, that the permit be varied by the imposition of strict, enforceable conditions including:

a) Complete on-site containment of Extremely Low Frequency (ELF) Electromagnetic Radiation (EMR) and acoustic emissions at all property boundaries, verified by independent pre-operational

testing.

b) A prohibition on any physical works or commercial operations until comprehensive and un-deferred hazardous-materials, bushfire-risk and emergency-management plans are approved.

c) A decommissioning and site-rehabilitation management plan secured by an unconditional bank guarantee or rehabilitation bond.

d) Operating constraints ensuring EMR exposure levels at adjacent sensitive-use boundaries remain below thresholds capable of causing electromagnetic interference (EMI) to implanted medical devices.

e) Reassessment of the development under the correct industrial use class, including application of all mandatory industrial codes, attenuation thresholds, separation buffers, hazardous-materials controls and fuel-storage requirements.

f) Cumulative-impact conditions requiring combined EMR, noise, vibration, hazardous-materials and fuel-burning modelling and mitigation.

g) Precautionary-principle conditions requiring pre-operational verification that environmental effects will be contained within the site boundaries.

4. Further or alternatively, if the Tribunal finds that public notification was materially defective, the permit decision be set aside and the application remitted to the Planning Authority for fresh public notification under s 57 of LUPAA and reassessment according to law.
5. Further or alternatively, if Ground 1 (misclassification) is upheld, the permit decision be set aside and the application remitted for fresh public notification and assessment under the correct industrial use class.
6. Such further or other orders as the Tribunal considers appropriate.

Are you seeking a stay of the decision or order that is the subject of this application/review?

YES

If you wish to apply for an order from the Tribunal to stay the operation of a decision that is appealed, or an order to preserve the subject matter of the proceedings, you **must** complete an Interlocutory Application Form and provide material that complies with Practice Direction 4 (General Directions for Applications and correspondence to the Tribunal).

4. Grounds for application

The Applicant/Appellant made representations under s 57(5) of the *Land Use Planning and Approvals Act 1993* in relation to Development Application DA 2026/29.

GROUND 1 — Misclassification of the Use as "Utilities"

The Planning Authority erred by classifying the proposed development as "Utilities" under the State Planning Provisions, notwithstanding that the development exhibits the inherent characteristics of an industrial activity. Use classification is a mandatory step under s 51(1) of the Land Use Planning and Approvals Act 1993. The Planning Authority referred the proposal to the EPA Board under s 25 of the *Environmental Management and Pollution Control Act 1994* (EMPCA) on 24 July 2026, expressly identifying the proposal as a Level 2 activity on the basis that the diesel generators had the potential to be considered "fuel burning" under Schedule 2. The EPA's letter dated 8 September 2026 confirms that the referral was made as a Level 2 activity and that the Director could not exercise s 24 EMPCA because the proposal already triggered Schedule 2. Once the Planning Authority made that determination, the Utilities use class was no longer available as a classification. "Utilities" is defined as low-impact public infrastructure such as substations, power lines, water and sewerage facilities and telecommunications installations. It does not encompass industrial energy production, large-scale mechanical plant, high-voltage electrical systems, hazardous-substances storage, industrial noise emissions, air emissions, cooling-plant discharge or electromagnetic-radiation emissions. By classifying a Schedule 2 industrial activity as Utilities, the Planning Authority applied the wrong use class, avoided mandatory industrial codes including the Attenuation Code and failed to consider mandatory relevant matters under s 51(2). This misclassification requires the permit to be set aside.

Particulars

(a) The Appellant will rely on the Planning Authority's referral under s 25 EMPCA demonstrating that the Authority had already determined the development to be a Schedule 2 industrial activity.

(b) The Appellant will rely on the EPA's letter dated 8 September 2026 confirming that the referral was made as a Level 2 activity and that s 24 EMPCA could not be exercised.

(c) The Appellant will identify the definition of "Utilities" in the State Planning Provisions and demonstrate that the authorised development does not fall within that definition.

(d) The Appellant will rely on the assessment record demonstrating that the misclassification caused the Planning Authority to avoid mandatory application of Code C9.0.

(e) The Appellant will rely on s 51(1) and s 51(2) of *Land Use Planning and Approvals Act 1993* (LUPAA).

GROUND 2 — Failure to Apply the Attenuation Code

The Planning Authority erred in determining the application because it failed to apply the mandatory provisions of Code C9.0 – Attenuation Code of the State Planning Provisions notwithstanding that the development includes substantial electrical and mechanical infrastructure capable of generating environmental effects including electromagnetic radiation, noise, vibration and hazardous-substances impacts. Under C9.2.1, the Attenuation Code applies to listed activities and to any other use or development that may generate environmental effects capable of adversely affecting sensitive uses. The authorised development includes 276 diesel generators, high-voltage cabling, transformers, switchgear, cooling plant and associated electrical systems, all of which constitute unlisted activities capable of generating environmental effects within the meaning of C9.2.1(b). Under C9.3, the Attenuation Code adopts the definitions in Table 3.1 of the State Planning Provisions including

"environmental nuisance" and "environmental harm" as defined in the *Environmental Management and Pollution Control Act* 1994 and "sensitive use" including residential uses and uses involving the presence of people for extended periods. Section 3 of EMPCA defines pollutant to include electromagnetic radiation. Accordingly, electromagnetic radiation is an environmental effect for the purposes of Code C9.0.

The Planning Authority failed to recognise that the proponent's electrical and mechanical systems produce extremely low frequency electromagnetic fields, transformer EMF, high-current cabling fields and harmonic electrical emissions. These constitute environmental effects capable of affecting nearby sensitive uses and therefore required assessment under C9.4 (Use Standards) and C9.5 (Development Standards). Under C9.4.1, a use must not cause an unreasonable impact on the amenity of a sensitive use through environmental effects including noise, emissions, hazardous substances or other impacts. No electromagnetic-radiation assessment, attenuation modelling or mitigation measures were provided to demonstrate compliance with C9.4.1. Under C9.5.1 and C9.5.2, development must be designed, sited and managed to ensure environmental effects are contained, attenuated or mitigated to avoid unreasonable impacts on sensitive uses. The Planning Authority failed to require any assessment of electromagnetic-radiation emissions, electrical-infrastructure impacts or attenuation distances and therefore could not be satisfied that the development complied with C9.5

The EPA's letter dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity under Schedule 2 EMPCA. Once the Planning Authority accepted that the proposal was industrial in nature and triggered Schedule 2, it was required to apply Code C9.0. The Planning Authority undertook no assessment of electromagnetic-radiation emissions, electrical-infrastructure impacts or attenuation distances and did not require any evidence capable of satisfying the performance criteria of C9.4 or C9.5. The EPA's confirmation that the proposal was referred as a Level 2 activity reinforces that the Planning Authority was required to apply Code C9.0 and could not treat the proposal as a Utilities use. By failing to apply Code C9.0 to a development that generates environmental effects, the Planning Authority failed to consider mandatory relevant matters under s 51(2) of LUPAA.

Particulars

(a) The Appellant will rely on the State Planning Provisions including Code C9.0 and Table 3.1 definitions.

(b) The Appellant will rely on EMPCA s 3 demonstrating that electromagnetic radiation is a pollutant and therefore an environmental effect under the Code.

(c) The Appellant will rely on expert evidence identifying electromagnetic-radiation emissions from diesel generators, transformers, switchgear and high-voltage cabling.

(d) The Appellant will rely on the assessment record demonstrating that no electromagnetic-radiation or attenuation modelling was undertaken.

(e) The Appellant will rely on spatial analysis showing the proximity of sensitive uses.

(f) The Appellant will rely on the EPA's letter dated 8 September 2026 confirming the proposal was referred as a Level 2 activity.

GROUND 3 — Material Defect in Public Notification

The Planning Authority erred by determining the application on the basis of notified material that did not disclose electromagnetic radiation as an environmental effect or pollutant associated with the proposed development, thereby preventing informed public participation as required by s 57 of the *Land Use Planning and Approvals Act 1993.* The notified material exhibited under s 57(3) did not identify, describe or assess electromagnetic-radiation emissions arising from the substantial electrical

and mechanical infrastructure forming part of the proposed 288-megawatt data-processing operation. Section 3 of the *Environmental Management and Pollution Control Act 1994* defines "pollutant" to include electromagnetic radiation and pollutants constitute environmental effects requiring disclosure and assessment under the Tasmanian Planning Scheme. The State Planning Provisions require environmental effects to be disclosed where relevant to the operation of applicable codes including the Attenuation Code. No part of the exhibited material identified electromagnetic radiation as a pollutant, environmental effect or off-site impact requiring assessment. The Council decision of 25 August 2026 acknowledges that electromagnetic-field concerns were raised in public representations but expressly states that electromagnetic-field exposure is not regulated by the Tasmanian Planning Scheme and undertook no assessment. The EPA's letter dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity, contradicting the Planning Authority's assumption that electromagnetic-radiation impacts were irrelevant. The omission of electromagnetic radiation from the notified material prevented affected persons from understanding the environmental effects of the proposal and making informed representations, thereby constituting a material defect in public notification. By determining the application without fresh notification of those material matters, the Planning Authority denied affected persons a fair opportunity to make informed representations. The permit should be set aside and the application remitted for fresh notification and assessment.

Particulars
(a) The Appellant will identify the content of the notified application and exhibited material.
(b) The Appellant will identify the respects in which electromagnetic radiation was not disclosed or assessed in that material.
(c) The Appellant will rely on the development application material, Council report, permit conditions and any amended plans or late material forming part of the assessment record.
(d) The Appellant will rely on comparative statutory interpretations of s 57 of LUPAA and s 3 of EMPCA.
(e) The Appellant will rely on the EPA's letter dated 8 September 2026 confirming the proposal was referred as a Level 2 activity.

GROUND 4 — EPA Board Determination Confirms Level 2 Referral, Contradicting Council's "Utilities" Classification

The Planning Authority erred in determining the application because its classification of the proposed development as "Utilities" is directly contradicted by the EPA Board's correspondence dated 8 September 2026, which confirms that George Town Council referred the proposal to the EPA Board on 24 July 2026 as a Level 2 activity under s 25 of the Environmental Management and Pollution Control Act 1994 (EMPCA). The referral was made on the basis that the diesel generators had the potential to be considered "fuel burning" under Schedule 2 of EMPCA. The EPA letter further confirms that the Director could not exercise s 24 EMPCA because the proposal already triggered Schedule 2, meaning the Planning Authority had already determined that the proposal was industrial in nature.

The EPA Board's discretionary decision on 4 August 2026 not to undertake assessment under EMPCA does not alter the statutory fact that the proposal was referred as a Level 2 activity. A discretionary decision not to assess does not convert a Schedule 2 activity into a Utilities use, nor does it remove the requirement for the Planning Authority to apply mandatory industrial codes under the Tasmanian Planning Scheme. By subsequently classifying the proposal as "Utilities" and avoiding mandatory application of Code C9.0 – Attenuation Code, the Planning Authority acted inconsistently with its own referral and failed to consider mandatory relevant matters under s 51(2) of the Land Use Planning and Approvals Act 1993.

The EPA letter demonstrates that the Planning Authority accepted the industrial nature of the proposal for the purpose of EMPCA referral, yet ignored that industrial nature for the purpose of planning assessment. This inconsistency constitutes an error. The permit should be set aside.

Particulars

(a) The Appellant will rely on the EPA Board's letter dated 8 September 2026 confirming that George Town Council referred the proposal as a Level 2 activity under s 25 EMPCA.

(b) The Appellant will rely on the EPA Board's statement that s 24 EMPCA could not be exercised because the proposal already triggered Schedule 2.

(c) The Appellant will rely on the Planning Authority's subsequent classification of the proposal as "Utilities," demonstrating inconsistency with its own Level 2 referral.

(d) The Appellant will rely on the assessment record demonstrating that mandatory industrial codes, including Code C9.0, were not applied.

(e) The Appellant will rely on s 51(1) and s 51(2) of LUPAA to demonstrate that the Planning Authority failed to consider mandatory relevant matters.

GROUND 5 — Breach of Schedule 2, Clause 1 (Bulk Petroleum and Chemical Storage — Level 2 Activity)

The Planning Authority erred in determining the application because the authorised development satisfies the definition of a Level 2 activity under Schedule 2 of the *Environmental Management and Pollution Control Act 1994* (EMPCA). The development application identifies a proposed bulk storage capacity of 2,760,000 litres of diesel fuel together with 110,400 litres of engine oil stored concurrently on-site, resulting in a total petroleum and chemical storage volume of 2,870,400 litres. Under Schedule 2, Clause 1 of EMPCA, any facility designed to store petroleum or chemical products in bulk exceeding 2,000 cubic metres (2,000,000 litres) is designated a Level 2 activity. The proposed combined storage volume exceeds the statutory threshold by 870,400 litres.

The EPA's letter dated 8 September 2026 confirms that George Town Council referred the proposal to the EPA Board on 24 July 2026 as a Level 2 activity under s 25 EMPCA, on the basis that the diesel generators had the potential to be considered "fuel burning" under Schedule 2. The EPA further confirmed that the Director could not exercise s 24 EMPCA because the proposal already triggered Schedule 2. On 4 August 2026, the EPA Board determined that the referred proposal did not require assessment under EMPCA. That discretionary decision does not alter the statutory fact that the proposal was referred as a Level 2 activity. A decision not to assess does not remove Level 2 status, nor does it permit the Planning Authority to classify the proposal as Utilities or avoid mandatory industrial codes under the Tasmanian Planning Scheme.

Because the proposal remained a Level 2 activity, the Planning Authority was required to treat the development as industrial in nature and apply mandatory industrial codes including Code C9.0 – Attenuation Code. Bulk petroleum and chemical storage constitutes an environmental effect within the meaning of C9.2.1(b) and EMPCA s 3, involving hazardous substances, vapour emissions, fire and explosion risk, and potential environmental harm. The Planning Authority did not apply Code C9.0, did not require any attenuation modelling, and did not assess hazardous-substances impacts or separation distances. By classifying the proposal as Utilities and determining the permit without applying mandatory industrial provisions, the Planning Authority failed to consider mandatory relevant matters under s 51(2) of the *Land Use Planning and Approvals Act 1993*.

Particulars

(a) The Appellant will rely on the development application material identifying diesel and engine-oil storage volumes.

(b) The Appellant will rely on Schedule 2, Clause 1 of EMPCA and associated statutory thresholds.
(c) The Appellant will rely on the EPA's letter dated 8 September 2026 confirming that the proposal

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was referred as a Level 2 activity under s 25 EMPCA.

(d) The Appellant will rely on the EPA Board's decision of 4 August 2026 declining assessment, demonstrating that the proposal remained a Level 2 activity notwithstanding the discretionary decision.

(e) The Appellant will rely on the assessment record demonstrating that mandatory industrial codes, including Code C9.0, were not applied.

GROUND 6— Premature Determination and Deferral of Level 2 Risk Assessment

The Planning Authority erred by determining the application without first obtaining and assessing the environmental, hazard and risk documentation required for a Level 2 activity under the *Environmental Management and Pollution Control Act 1994* (EMPCA). The late-stage expansion to 276 diesel generators and associated bulk fuel storage satisfies the criteria for a Level 2 Activity under Schedule 2 of EMPCA, requiring complete hazardous-materials, bushfire-hazard, emergency-management and attenuation documentation **prior** to determination.

Instead, the Planning Authority approved the development subject to the future submission of revised hazardous-materials management plans, bushfire-hazard management plans and emergency-management plans. These documents are ordinarily required at the pre-decision stage for Level 2 industrial activities. Relying on post-approval documentation prevented proper assessment of environmental effects and limited the ability of representors to review and comment on the full environmental configuration of the proposal.

The EPA's correspondence dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity under s 25 EMPCA. That referral required the Planning Authority to consider Level 2 environmental effects before granting approval. By determining the application without this information, the Planning Authority failed to consider mandatory relevant matters under s 51(2) of the *Land Use Planning and Approvals Act 1993*.

Particulars

(a) EMPCA Schedule 2 (Fuel Burning Activities) demonstrates that the combined generator capacity satisfies Level 2 thresholds.

(b) The EPA's letter dated 8 September 2026 confirms Level 2 referral.

(c) The assessment record shows hazardous-materials, bushfire-hazard and emergency-management plans were deferred to post-approval.

(d) LUPAA ss 57–59 require that representors be able to review pre-decision environmental documentation.

Ground 7- Failure to Apply the Performance Criteria of the Environmental Values and Attenuation Code

4.1 The Planning Authority erred in its exercise of planning judgment by failing to satisfy the mandatory provisions of the Environmental Values and Attenuation Code (Clause C9.0), specifically regarding the potential for electromagnetic radiation (EMR) and noise emissions to cross boundaries into adjacent sensitive areas.
4.2 The Planning Authority failed to recognize that a 288-megawatt digital manufacturing facility incorporates a scale of electrical and cooling infrastructure that functions as an unlisted activity under the code, generating localized industrial-strength levels of electromagnetic radiation and continuous noise.

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3.3 Pursuant to the performance criteria of the Attenuation Code, the developer was required to conclusively demonstrate *prior to approval* that the combined footprint of EMR and acoustic emissions would not result in an unreasonable loss of amenity or cause an environmental nuisance at sensitive boundaries. By failing to require pre-operational evidence or specialized spatial separation, the Planning Authority did not apply the code's core protective intent.

GROUND 8 - Unreasonable Off-Site Environmental Effects (Noise + EMR Nuisance)

The Planning Authority erred in determining the application by finding that the development satisfies the objectives and performance criteria of the 19.0 General Industrial Zone under the George Town Local Provisions Schedule. The General Industrial Zone requires industrial uses to contain environmental impacts within the site and avoid unreasonable impacts on adjacent sensitive uses. The authorised development includes extensive electrical and mechanical infrastructure, high-voltage cabling, transformers, switchgear, cooling plant and 276 diesel generators, all capable of generating continuous low-frequency noise and extremely low-frequency electromagnetic radiation (ELF-EMR).

While the Planning Authority considered acoustic impacts, it failed to assess the cross-boundary environmental effects of ELF-EMR emissions and failed to consider the combined effect of noise and EMR on nearby sensitive uses. Continuous ELF-EMR constitutes an "environmental nuisance" within the meaning of s 3 of the *Environmental Management and Pollution Control Act 1994*, as it is an emission capable of unreasonably interfering with the comfortable enjoyment of land. The Planning Authority relied on generalised international exposure baselines and did not undertake or require localised EMR modelling, nor did it impose conditions to ensure that EMR emissions would be contained within the boundaries of the site as required by the General Industrial Zone performance criteria and Code C9.0 – Attenuation Code.

The EPA's correspondence dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity under s 25 EMPCA, recognising the industrial nature of the development. That industrial nature required the Planning Authority to consider environmental effects including EMR emissions in addition to noise. By failing to assess EMR impacts or impose conditions addressing those impacts, the Planning Authority failed to consider mandatory relevant matters under s 51(2) of LUPAA and erred in finding that the development satisfies the applicable zone standards.

Particulars

(a) The Appellant will rely on the George Town Local Provisions Schedule confirming that the land is zoned 19.0 General Industrial Zone, as stated in the Council officer report contained in the 2026-08-25 Ordinary Council Meeting Attachments (Part 4).

(b) The Appellant will rely on the assessment record demonstrating that the Planning Authority assessed the use as Utilities, despite the land being zoned General Industrial, and therefore applied the incorrect use class and failed to apply the correct zone performance criteria.

(c) The Appellant will rely on the acoustic assessment contained in the Council meeting attachments to demonstrate that while noise was considered, no electromagnetic-radiation (EMR) assessment was undertaken, and no EMR modelling or mitigation conditions were imposed.

(d) The Appellant will rely on EMPCA s 3 defining "environmental nuisance," and will provide expert evidence demonstrating that extremely low-frequency EMR generated by high-voltage industrial electrical systems constitutes such an environmental effect.

(e) The Appellant will rely on independent electromagnetic-field modelling and environmental assessments demonstrating cross-boundary EMR levels and combined noise-and-EMR impacts on nearby sensitive uses, to be provided following the formal exchange of expert reports.

(f) The Appellant will rely on the EPA's correspondence dated 8 September 2026 confirming that the proposal was referred as a Level 2 activity under s 25 EMPCA, demonstrating that the Planning

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Authority was required to consider industrial-scale environmental effects including EMR emissions.

GROUND 9 — Material and Serious Environmental Harm Arising from Structural Mitigation Requirements

The Planning Authority erred by failing to consider the physical and economic burden imposed on neighbouring landholders by the off-site environmental effects of the development. The authorised development includes extensive high-voltage electrical infrastructure, transformers, switchgear, harmonic-emission sources and 276 diesel generators capable of generating extremely low-frequency electromagnetic radiation (ELF-EMR). The projected cross-boundary EMR levels are of a magnitude that will likely necessitate substantial structural mitigation on adjacent properties, including specialised shielding materials, window treatments and physical barriers, in order to maintain safe ambient indoor and outdoor environments.

The need for neighbouring landholders to undertake structural alterations to their dwellings constitutes material environmental harm within the meaning of s 3 of the *Environmental Management and Pollution Control Act 1994*. Material environmental harm includes situations where a person incurs reasonable costs exceeding $5,000 in preventing, minimising or remedying environmental effects caused by another land use. The shielding burden represents a substantial and foreseeable economic impact directly attributable to the environmental emissions of the development, and the anticipated mitigation costs exceed the statutory threshold.

The scale of shielding required is also capable of constituting serious environmental harm within the meaning of s 3 of EMPCA, which includes situations where reasonable costs exceed $50,000. The installation of specialised EMR-attenuation materials, structural retrofits and architectural shielding systems is likely to exceed this threshold, particularly where multiple dwellings or structures require modification. The Planning Authority failed to consider the magnitude of this foreseeable economic burden.

The Planning Authority did not obtain expert evidence, did not require EMR modelling, and did not consider the economic consequences of the shielding burden on adjacent sensitive uses. The Planning Authority therefore failed to consider mandatory relevant matters under s 51(2) of the Land Use Planning and Approvals Act 1993, including the environmental effects of the development and the economic harm imposed on neighbouring landholders.

The EPA's correspondence dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity under s 25 EMPCA, recognising the industrial nature of the development. That industrial nature required the Planning Authority to consider environmental effects including EMR emissions and the associated mitigation burden. By failing to assess or mitigate these impacts, the Planning Authority erred in determining that the development satisfies the applicable standards of the 19.0 General Industrial Zone.

Particulars

(a) The Appellant will rely on the George Town Local Provisions Schedule confirming that the land is zoned 19.0 General Industrial Zone, as stated in the Council officer report contained in the 2026-08-25 Ordinary Council Meeting Attachments (Part 4).

(b) The Appellant will rely on the assessment record demonstrating that no EMR modelling was undertaken and no EMR mitigation conditions were imposed.

(c) The Appellant will rely on EMPCA s 3 defining material environmental harm (reasonable costs > $5,000) and serious environmental harm (reasonable costs > $50,000).

(d) The Appellant will rely on the EPA's correspondence dated 8 September 2026 confirming the

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proposal was referred as a Level 2 activity, demonstrating that the Planning Authority was required to consider industrial-scale environmental effects including EMR emissions.

(e) The Appellant will provide full particulars of the required shielding infrastructure and associated financial costs upon completion and submission of the expert shielding assessment.

GROUND 10 — Failure to Consider Electromagnetic Exposure Risks to Sensitive and Vulnerable Land Uses

The Planning Authority erred by failing to consider the potential for electromagnetic-radiation (EMR) exposure arising from the authorised development's substantial electrical and mechanical infrastructure, contrary to s 51(2) of the *Land Use Planning and Approvals Act 1993* and the objectives of Schedule 1. The development includes 276 large-scale diesel generators, high-current cabling, transformers, switchgear and harmonic-emission sources capable of generating extremely low-frequency electromagnetic fields. These emissions constitute environmental effects within the meaning of EMPCA s 3 and C9.2.1(b) of the Attenuation Code.

The Planning Authority relied on generalised international exposure baselines and did not assess localised EMR impacts on adjacent sensitive uses, including residential properties occupied by individuals who rely on active implanted medical devices such as cardiac pacemakers, defibrillators and insulin pumps. Guidance published by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) recognises that electromagnetic fields may interact with active implanted medical devices under certain conditions and recommends precautionary assessment where industrial electrical systems are located near sensitive receptors. The Planning Authority did not obtain expert evidence, did not require EMR modelling, and did not impose conditions to mitigate or manage EMR exposure risks to nearby sensitive uses.

The EPA's correspondence dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity under s 25 EMPCA, recognising the industrial nature of the development. That industrial nature required the Planning Authority to consider environmental effects including electromagnetic emissions. By failing to assess EMR impacts or impose conditions addressing those impacts, the Planning Authority failed to consider mandatory relevant matters under s 51(2) and failed to ensure the development would not cause an adverse effect on the health and safety of persons occupying nearby sensitive uses.

Particulars

(a) The Appellant will rely on ARPANSA guidance concerning electromagnetic-field interactions with active implanted medical devices.

(b) The Appellant will rely on expert evidence addressing EMR emissions associated with industrial electrical systems including generators, transformers and high-current cabling.

(c) The Appellant will rely on the EPA's letter dated 8 September 2026 confirming the proposal was referred as a Level 2 activity.

(d) The Appellant will rely on the assessment record demonstrating that no EMR assessment or mitigation conditions were imposed.

(e) The Appellant will rely on spatial analysis showing the proximity of sensitive uses occupied by vulnerable individuals.

GROUND 11 — Failure to Impose a Decommissioning Bond and Site-Rehabilitation Condition

The Planning Authority erred by failing to impose conditions regulating the post-operational decommissioning and rehabilitation of the site, contrary to the objectives of Schedule 1 of the *Land Use Planning and Approvals Act 1993,* which require the promotion of sustainable development and the avoidance of long-term adverse environmental effects. The authorised development comprises

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highly specialised 288-megawatt digital-processing infrastructure including 276 large-scale diesel generators, extensive electrical systems, cooling plant, battery arrays and associated industrial structures. The cessation of the approved use poses a foreseeable risk of structural abandonment, hazardous e-waste accumulation, residual diesel and oil contamination, and long-term degradation of the amenity and environmental quality of the Long Reach area.

The Planning Authority had the power to impose conditions requiring decommissioning, site rehabilitation and financial assurance. Section 51 of LUPAA permits the imposition of any condition necessary to further the objectives of the Resource Management and Planning System, including the precautionary principle and the protection of the environment from foreseeable harm. Section 20 and section 44 of the *Environmental Management and Pollution Control Act 1994* further empower councils to issue Environmental Protection Notices containing financial-assurance requirements. The Planning Authority failed to consider these powers and did not require a decommissioning plan, a rehabilitation strategy or a financial bond or bank guarantee to secure the performance of those obligations.

The EPA's correspondence dated 8 September 2026 confirms that the proposal was referred as a Level 2 activity under s 25 EMPCA. The industrial nature of the development, as recognised by the referral, required the Planning Authority to consider long-term environmental risks including decommissioning, hazardous-materials removal and site rehabilitation. By omitting any condition addressing these matters, the Planning Authority failed to consider mandatory relevant matters under s 51(2) and failed to secure the orderly, sustainable management of the site over its full lifecycle.

Particulars

(a) The Appellant will rely on the development application material describing the scale and nature of the industrial plant.

(b) The Appellant will rely on Schedule 1 of LUPAA, including the objectives relating to sustainable development and avoidance of long-term environmental harm.

(c) The Appellant will rely on the EPA's letter dated 8 September 2026 confirming the proposal was referred as a Level 2 activity.

(d) The Appellant will rely on statutory powers under LUPAA s 51 and EMPCA ss 20 and 44 permitting the imposition of rehabilitation and financial-assurance conditions.

(e) The Appellant will rely on the assessment record demonstrating that no decommissioning or rehabilitation condition was imposed.

GROUND 12 — Failure to Apply the Precautionary Principle

The Planning Authority erred in determining the application by failing to apply the Precautionary Principle contained in Schedule 1 of the Land Use Planning and Approvals Act 1993. The authorised development includes extensive high-voltage electrical infrastructure, transformers, switchgear, harmonic-emission sources and 276 diesel generators capable of generating extremely low-frequency electromagnetic radiation (ELF-EMR) and continuous low-frequency noise. There are no definitive domestic planning standards governing long-term, high-volume industrial ELF-EMR exposure adjacent to sensitive uses, and the application material did not include EMR modelling or combined-impact assessment.

In circumstances of scientific uncertainty and the potential for environmental effects to impact nearby sensitive uses, the Precautionary Principle required the Planning Authority to adopt a conservative, protective approach. This included requiring pre-operational evidence demonstrating that EMR and acoustic emissions would be contained within the site boundaries, or imposing conditions ensuring

adequate attenuation and separation. The Planning Authority determined the application without obtaining this information and without applying a precautionary approach to the assessment of environmental effects.

By determining the application without requiring evidence capable of demonstrating that environmental effects would be contained, the Planning Authority failed to consider mandatory relevant matters under s 51(2) of LUPAA and did not give effect to the objectives of Schedule 1.

Particulars

(a) The Appellant will rely on Schedule 1 of LUPAA, which incorporates the Precautionary Principle into the objectives of the Resource Management and Planning System.

(b) The Appellant will rely on the assessment record demonstrating that no EMR modelling or combined-impact assessment was undertaken.

(c) The Appellant will rely on EMPCA s 3 defining environmental effects including EMR and noise emissions.

(d) The Appellant will rely on expert evidence demonstrating the industrial-scale EMR and acoustic emissions generated by the development.

(e) The Appellant will rely on the EPA's correspondence dated 8 September 2026 confirming Level 2 referral, demonstrating the industrial nature of the development and the need for precautionary assessment.

RELIEF SOUGHT:

The Appellant seeks relief in that:

4. The appeal be allowed.
5. The decision of the George Town Council dated 25 August 2026 granting a permit for DA 2026/29 be set aside.
6. Alternatively, that the permit be varied by the imposition of strict, enforceable conditions including:

a) Complete on-site containment of Extremely Low Frequency (ELF) Electromagnetic Radiation (EMR) and acoustic emissions at all property boundaries, verified by independent pre-operational testing.

b) A prohibition on any physical works or commercial operations until comprehensive and un-deferred hazardous-materials, bushfire-risk and emergency-management plans are approved.

c) A decommissioning and site-rehabilitation management plan secured by an unconditional bank guarantee or rehabilitation bond.

d) Operating constraints ensuring EMR exposure levels at adjacent sensitive-use boundaries remain below thresholds capable of causing electromagnetic interference (EMI) to implanted medical devices.

e) Reassessment of the development under the correct industrial use class, including application of all mandatory industrial codes, attenuation thresholds, separation buffers, hazardous-materials controls and fuel-storage requirements.

f) Cumulative-impact conditions requiring combined EMR, noise, vibration, hazardous-materials and fuel-burning modelling and mitigation.

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g) Precautionary-principle conditions requiring pre-operational verification that environmental effects will be contained within the site boundaries.

7. Further or alternatively, if the Tribunal finds that public notification was materially defective, the permit decision be set aside and the application remitted to the Planning Authority for fresh public notification under s 57 of LUPAA and reassessment according to law.
8. Further or alternatively, if Ground 1 (misclassification) is upheld, the permit decision be set aside and the application remitted for fresh public notification and assessment under the correct industrial use class.
9. Such further or other orders as the Tribunal considers appropriate.

5. Late applications

☒ The application is lodged within the time allowed under the relevant legislation **OR**

☐ The reason the application is lodged outside the time allowed is:

6. Party Details

A. Applicant

Name:	Anne-Marie BASTIAN
Address:	
Name of Organisation (if applicable):	ENVIRONMENTAL AWARENESS ASSOCIATION INC.
ACN/ABN:	ABN 38 956 934 202

Applicant's Legal Representative

Legal Practitioner's name:	
Name of firm or organisation:	
Address:	

Contact Details

Telephone:		**Mobile:**	
Email:	**nodatacentre@gmail.com**		

☒ **Do you want TASCAT notices and correspondence emailed to you?**

By ticking this box you agree to receive the notice of hearing and other future correspondence by email. Please

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ensure the email address provided above is accurate and the email account is checked regularly.

B. First

Respondent

Name:	GEORGE TOWN COUNCIL
Address:	16–18 Anne Street, George Town TAS 7253
Name of Organisation (if applicable):	GEORGE TOWN COUNCIL
ACN/ABN:	ABN 68 300 116 092

Second

Respondent

Name:	FIRMUS TECHNOLOGIES PTY LTD
Address:	**23 Killafaddy Road, St Leonards TAS 7250**
Name of Organisation (if applicable):	FIRMUS TECHNOLOGIES
ACN/ABN:	**ANC 655 498 105** **ABN 28 655 498 105**

7. Language and disability support

A. Interpreter:

Does any party need an interpreter for the hearing? Please specify language:

No

B. Support requirements:

Please advise of any disability-related need or assistance a party may require.:

8. Application fee information

You may need to pay an application fee when lodging your application. In some cases, the proceeding is not taken to be filed until the fee is paid. The fee schedule is available on the TASCAT website under the relevant division.

If you are unable to pay the concession fee or are not eligible, TASCAT may consider waiving the fee fully or partially. To request a fee waiver please complete the fee waiver request form.

Payment of the prescribed fee can be made by cash, cheque, credit card or EFTPOS. Payments can be made by phone.

- Cheques should be made payable to **Tasmanian Civil & Administrative Tribunal.**

Please check the box below to confirm if a fee is payable for this application.

☒ I have checked the fees table to ascertain if a fee is payable for the lodging of this General Review form

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9. Signature

Your signature or signature of legal representative

Name:	**Anne-Marie BASTIAN**		
Signature		**Date:**	

10. Registry Details

Tasmanian Civil & Administrative Tribunal (TASCAT)
38 Barrack Street, Hobart

Postal address: GPO Box 1311
HOBART 7001

Telephone: 1800 657 500
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