

From: no-reply@nt.gov.au
To: [eia_consult](#)
Subject: NTEPA Consultation - Project Ares
Date: Wednesday, 12 August 2026 1:10:23 PM
Attachments: [Grounded_Corporation_Project_Ares_Submission.pdf](#)
[Grounded_Corporation_NT_Sustainable_AI_Campus_Concept.pdf](#)

Your details

First and last names: Nadia Carmen Dinnery

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Are you making this submission on behalf of an organisation: Yes

If yes, please enter the name of the organisation: Grounded Corporation Pty Ltd

Submission contents

Submission details:

To whom it may concern, My name is Nadia and I'm the Owner and Director of my new founded Company Grounded Corporation Pty Ltd. I am reaching out because I believe it's important for our community to have a voice in regards to projects with such a big scale. My personal voice as a member of the Darwin Community, and my companies voice as a new starter business that stands for Sustainability, Eco-Building, Recycling and Upcycling and Circular Economy and Indigenous and non-indigenous Community engagement. I have attached 2 separate documents for your viewing. The first is Project Ares - Propose Hyperscale Data Centre Campus; the second is a Concept Design and preferred location strategy. My contact details are: Name: Nadia C Dinnery Mobile : [REDACTED] Email : [REDACTED] Preferred method of contact is by email, thanks. Thank you for your time. Kind Regards, Nadia

Submission files

1: Grounded_Corporation_Project_Ares_Submission.pdf, type application/pdf, 15.4 KB

2: Grounded_Corporation_NT_Sustainable_AI_Campus_Concept.pdf, type application/pdf, 14.9 KB

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GROUNDING CORPORATION

Submission to the Northern Territory Environment Protection Authority

Project Ares - Proposed Hyperscale Data Centre Campus

RENEWABLE ENERGY	WATER CIRCULARITY	CLIMATE-RESPONSIVE DESIGN
SODIUM-ION STORAGE	LOCAL CAPABILITY	COUNTRY & BIODIVERSITY

Northern Territory, Australia
August 2026

Purpose of Submission

Grounded Corporation welcomes the opportunity to provide feedback regarding Project Ares and the development of large-scale artificial intelligence and data-centre infrastructure in the Northern Territory.

I support technological development and economic diversification in the Northern Territory. However, developments of this scale also present an opportunity to establish a new standard for how energy-intensive digital infrastructure is designed and operated.

The Northern Territory possesses exceptional solar resources, significant land availability and opportunities for renewable-energy development. Rather than simply replicating conventional data-centre models used elsewhere, the Territory has an opportunity to become a world leader in **renewable, climate-responsive and circular AI infrastructure**.

I therefore encourage the NT EPA and the proponent to investigate the following measures as part of the environmental assessment of Project Ares.

1. Renewable Energy as the Primary Energy Source

Project Ares proposes significant solar generation and battery storage, which I strongly support. However, the project also proposes gas-fired electricity generation.

I recommend that the environmental assessment examine a **renewables-first energy model**, where solar generation and energy storage provide the overwhelming majority of the facility's electricity requirements and fossil gas, if ultimately demonstrated to be necessary, is limited to backup or emergency generation rather than continuous baseload generation.

The assessment should also investigate whether appropriately located **wind generation** could complement solar generation. Solar and wind can have different generation profiles. Combined with large-scale storage and intelligent energy management, a diversified renewable system could potentially improve energy reliability while reducing dependence on fossil fuels.

- solar + battery storage;
- solar + wind + battery storage;
- renewable generation combined with long-duration energy storage; and
- the proposed system incorporating gas generation.

These scenarios should be compared transparently on lifecycle greenhouse emissions, reliability, cost, land disturbance and long-term environmental impact.

2. Investigate Sodium-Ion and Other Sustainable Battery Technologies

Project Ares proposes battery storage of up to 16 GWh. Given the enormous scale of this storage system, battery chemistry should be considered an important environmental decision rather than simply a procurement decision.

I recommend requiring a comparative assessment of **sodium-ion battery technology**, alongside lithium iron phosphate and other suitable stationary or long-duration storage technologies.

Sodium is abundant and sodium-ion technology may offer advantages for stationary energy storage, including potentially reducing dependence on some constrained critical minerals.

- lifecycle environmental impacts;
- performance under Northern Territory climatic conditions;
- fire and thermal safety;
- mineral and material requirements;
- recyclability;
- expected operational life;
- embodied carbon;
- end-of-life recovery; and
- opportunities for future Australian battery manufacturing and recycling supply chains.

The objective should not be to prescribe one battery chemistry today, but to ensure that a project expected to operate for decades does not lock itself unnecessarily into a technology without assessing potentially more sustainable alternatives.

3. Minimise Groundwater Extraction Through Water Recycling

The proposal's potential extraction of up to 4 GL of groundwater per year from the Wiso Basin warrants particularly careful assessment.

Water is a precious resource in the Northern Territory, and large industrial developments should demonstrate that groundwater extraction has been minimised before long-term extraction is approved.

I recommend that Project Ares be required to develop a comprehensive **closed-loop or near-closed-loop water strategy**.

- recycling cooling water wherever technically possible;
- high-efficiency or low-water cooling technologies;
- treatment and reuse of wastewater;
- capture and storage of rainfall where practical;
- reuse of treated water for landscaping, dust suppression and other non-potable applications;
- leak detection and continuous water monitoring; and
- technologies capable of reducing evaporative losses.

A detailed project water balance should be publicly available showing total water demand, groundwater extraction, recycled water volumes, losses and water consumption per unit of computing capacity. A measurable water-reuse target should also be established.

4. Climate-Responsive and Passive Tropical Building Design

A renewable power supply should be accompanied by buildings designed specifically for the Northern Territory climate.

Although server halls require highly controlled operating environments, many parts of a data-centre campus do not require the same level of mechanical cooling. Offices, accommodation, workshops, warehouses, amenities and other supporting infrastructure should incorporate **passive tropical design principles** wherever possible.

- building orientation that minimises unwanted solar heat gain;
- deep external shading;
- high-performance insulation;
- reflective and low-heat-gain roofing;
- natural ventilation in appropriate non-critical spaces;
- shaded outdoor circulation;
- vegetation and landscaping for microclimate cooling;
- efficient building envelopes; and
- designs that minimise mechanical air-conditioning requirements.

Reducing energy demand before generating additional electricity should be a fundamental principle of sustainable infrastructure.

5. Low-Carbon, Sustainable and Locally Produced Building Materials

The environmental assessment should consider not only operational emissions but also the **embodied carbon of construction materials**.

Project Ares will require extensive supporting infrastructure over a very large area. Where structurally and technically appropriate, the project should investigate lower-carbon alternatives to conventional construction materials.

This could include locally sourced recycled materials, responsibly sourced timber, recycled aggregates and emerging bio-based construction products such as **industrial hemp-based building materials**.

Supporting the development of Northern Territory supply chains for sustainable construction materials could transform an environmental requirement into a long-term economic opportunity.

6. Circular Economy and End-of-Life Responsibility

A project expected to operate for several decades should have a circular-resource strategy from its inception.

- servers and electronic equipment;
- batteries;
- photovoltaic panels;
- electrical infrastructure;
- construction materials;
- packaging;
- cooling equipment; and
- other major waste streams.

Wherever possible, materials should be repaired, refurbished, reused or recycled rather than disposed of. The project should also investigate whether **waste heat generated by the data centre can be productively reused**, based on realistic local conditions.

7. Biodiversity and Responsible Land Use

Large renewable-energy developments still have environmental impacts. The significant land area associated with the proposed solar farm means renewable energy should not automatically be considered environmentally benign.

Solar arrays, transmission infrastructure, roads and supporting facilities should be located to minimise unnecessary clearing and habitat fragmentation. Existing disturbed areas should be preferentially used wherever practical. Wildlife corridors, waterways and areas of high ecological or cultural value should be protected.

Where clearing cannot reasonably be avoided, rehabilitation and biodiversity restoration should form part of the project's long-term environmental commitments.

8. Traditional Owner Participation

Traditional Owners should be involved meaningfully throughout the development, operation and eventual decommissioning of the project. Engagement should extend beyond consultation undertaken solely to satisfy an approvals process.

- participation in project decision-making;
- employment and apprenticeships;
- renewable-energy training;
- environmental monitoring;
- land-management programs;
- Indigenous business procurement;
- long-term commercial partnerships; and
- protection of cultural landscapes and knowledge.

Where appropriate and supported by Traditional Owners, opportunities for genuine economic participation or co-investment should also be explored.

9. Northern Territory Jobs, Businesses and Skills

A project of this scale should leave lasting capability within the Northern Territory. Local procurement targets should therefore be considered for NT businesses and contractors.

- renewable-energy installation and maintenance;
- battery systems;
- data-centre operations;
- electrical trades;
- water-treatment technology;
- environmental monitoring;
- sustainable construction;
- recycling and resource recovery; and
- digital and AI infrastructure.

The objective should be to develop a skilled Territory workforce rather than relying predominantly on temporary imported labour and supply chains.

10. Transparent Environmental Performance

If Project Ares proceeds, environmental performance should remain transparent throughout its operational life. I recommend public reporting of key indicators including:

- Energy - total electricity consumption, renewable share, battery utilisation, gas consumption and associated emissions.
- Water - groundwater extraction, total consumption, percentage recycled and water efficiency per unit of computing capacity.
- Circularity - electronic waste, batteries and solar panels recycled, construction waste diverted from landfill and materials recovered or reused.
- Community - NT employment, Traditional Owner employment and procurement, NT business expenditure and ongoing community engagement.

These indicators would allow the community to determine whether environmental commitments made during project approval are actually being achieved.

A Broader Opportunity for the Northern Territory

Project Ares should not be viewed only as an individual development. It could establish a precedent for a much larger AI and data-centre industry in the Northern Territory.

The Territory therefore has an opportunity to establish sustainability expectations **before that industry becomes entrenched**.

I encourage the NT Government and NT EPA to consider developing a **Northern Territory Sustainable Data Centre Framework** based on the following principles:

- Renewable energy first.
- Energy efficiency before additional generation.
- Minimal groundwater consumption.
- Maximum practical water recycling.
- Circular materials and responsible end-of-life management.
- Climate-responsive architecture.
- Protection of biodiversity and Country.
- Meaningful Traditional Owner participation.
- Northern Territory employment and procurement.
- Transparent environmental reporting.

There is no reason the growth of artificial intelligence and digital infrastructure must come at the expense of environmental sustainability.

With the Territory's renewable resources and the ability to plan major infrastructure from the beginning, the Northern Territory has an opportunity to demonstrate a different model - one where technological development, environmental responsibility, Traditional Owner participation and economic development

reinforce each other.

I therefore support the development of Project Ares **provided that strong environmental standards are established and genuinely lower-impact alternatives are properly investigated before long-term infrastructure decisions are locked in.**

I encourage the NT EPA to ensure these alternatives and mitigation measures are considered during the environmental impact assessment.

Thank you for the opportunity to contribute to this important discussion.

Grounded Corporation

Northern Territory, Australia

GROUNDING CORPORATION

Northern Territory Sustainable AI & Data Centre Campus

Concept design and preferred location strategy

RENEWABLE-FIRST	CLOSED-LOOP WATER	PASSIVE TROPICAL DESIGN
SODIUM-ION STORAGE	CIRCULAR MATERIALS	COUNTRY + COMMUNITY

Preferred investigation area:

Barkly region - Elliott / Murrarji corridor, subject to Traditional Owner agreement, cultural heritage, biodiversity, groundwater, wind-resource and engineering studies.

Prepared as a conceptual companion to Grounded Corporation's Project Ares submission
August 2026

1. Executive Concept

Grounded Corporation proposes that any future Northern Territory hyperscale AI/data-centre campus be planned as a **renewable-first, water-conscious and climate-responsive precinct**, rather than as a conventional data centre with sustainability measures added later.

The preferred area for detailed investigation is the **Barkly region around the Elliott-Murrarji corridor**. This is not a claim that a particular parcel is suitable or available. Final siting should occur only after Traditional Owner and native title engagement, cultural heritage assessment, ecological surveys, groundwater modelling, wind measurement, logistics and transmission studies.

Why this region?

The current Project Ares proposal is already approximately 52 km north-west of Elliott and 100 km south-west of Daly Waters, and includes a 1 GW data centre, up to 3 GWp solar, up to 16 GWh battery storage and associated infrastructure. NT renewable-energy planning has also identified the Barkly as an area with strong potential for coincident solar and wind resources, subject to investigation of the wind resource.

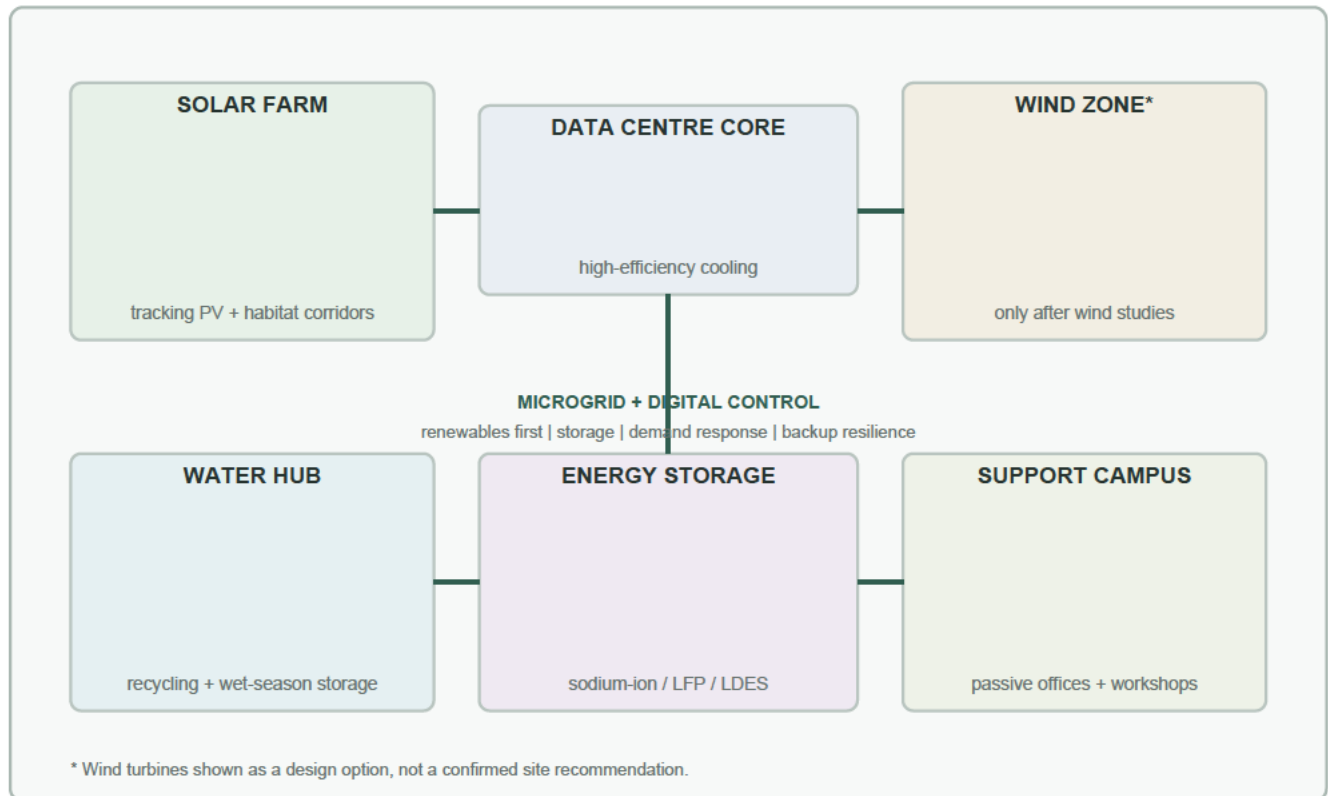
Grounded Corporation's concept therefore focuses on improving the **design philosophy** of a Barkly AI-energy precinct rather than recommending development on untouched land elsewhere.

Key siting principles

- Prefer already-disturbed or lower-conservation-value areas before intact habitat.
- Avoid culturally significant areas and protect Country through Traditional Owner-led siting.
- Maintain buffers to waterways, sensitive habitats and groundwater-dependent ecosystems.
- Use proximity to the Stuart Highway / rail and existing or planned infrastructure to reduce new disturbance.
- Require measured wind data before committing to turbines; do not assume wind is viable at a specific parcel.
- Design the precinct in modular stages so water, energy and ecological performance can be demonstrated before expansion.

2. Conceptual Precinct Layout

The diagram below is conceptual and not to scale. It illustrates how the major systems could be separated, buffered and linked.



The data-centre core should occupy the smallest practical disturbed footprint, surrounded by energy and water systems rather than fragmented across the landscape. Solar fields should retain habitat corridors and drainage paths. Wind turbines, if proven viable, should be positioned after bird/bat, cultural heritage, noise and measured-resource studies.

3. Energy Architecture

- Solar PV as the primary generation source, using single-axis tracking where appropriate.
- A wind component only where multi-season measurements demonstrate a complementary resource and environmental studies support it.
- Large stationary storage assessed across sodium-ion, LFP and long-duration technologies using lifecycle, safety, recyclability and NT heat-performance criteria.
- Grid-forming inverters and a precinct microgrid capable of islanded operation and black start.
- AI workload scheduling and demand response: shift non-time-critical compute toward periods of abundant renewable generation.
- Gas or other combustion generation, if retained at all, treated as resilience/backup rather than the default baseload source.
- Expandable energy blocks so new storage chemistries can be adopted over the 25-30+ year project life.

4. Water and Cooling Design

Water demand should be treated as a design constraint from day one. The objective is a **near-closed-loop water system** with groundwater as a minimised supplementary source rather than the automatic first choice.

- Use high-efficiency cooling architecture selected for NT temperature and humidity conditions.
- Recover, treat and recirculate cooling water wherever technically feasible.
- Capture wet-season rainfall from roofs and hardstand into lined storage sized from site-specific rainfall modelling.
- Use treated wastewater for non-potable purposes such as dust suppression, landscaping and suitable cooling make-up applications.
- Meter all major water loops and publicly report water-use effectiveness and recycled-water percentage.
- Design landscaping with local native species and minimal irrigation demand.
- Investigate beneficial use of reject water or concentrates rather than routine disposal.

5. Passive Tropical Buildings and Materials

The server halls themselves require controlled environments, but the wider campus - administration, workshops, training rooms, accommodation, stores and amenities - can be designed around the NT climate.

- Long east-west building orientation where site conditions allow, reducing low-angle solar exposure.
- Deep verandahs, external shading and covered circulation.
- High-performance roofs, reflective surfaces and ventilated roof cavities.
- Natural cross-ventilation in suitable non-critical spaces and mixed-mode cooling where practical.
- Shaded courtyards and native vegetation to reduce local heat load.
- Low-embodied-carbon materials and design for disassembly.
- Trial appropriate industrial-hemp-based materials in non-critical buildings where they satisfy fire, moisture, structural, termite and building-code requirements.
- Local and recycled aggregates/materials where lifecycle assessment supports their use.

6. Circular Technology Precinct

- On-site segregation and secure recovery streams for servers, electronics, cables, batteries and solar components.
- Supplier take-back and minimum recovery requirements written into procurement contracts.
- A repair/refurbishment workshop to extend equipment life before recycling.
- Battery modules selected for serviceability and recoverable materials.
- Investigate waste-heat applications that make sense in the local climate, such as industrial drying or controlled processes, rather than assuming European-style district heating.
- Publish annual material-flow data and end-of-life recovery rates.

7. Country, Community and Local Economic Participation

The campus should be developed **with** Traditional Owners and nearby communities, not merely presented after major siting decisions have been made.

- Traditional Owner-led cultural mapping and no-go areas before final footprint selection.
- Paid participation in environmental monitoring, land management and cultural heritage work.
- Indigenous procurement targets and pathways to commercial participation where desired by Traditional Owners.
- A local advisory group with published responses to community recommendations.
- Training pathways in renewable energy, battery systems, water treatment, data-centre operations, sustainable construction and environmental monitoring.
- Transparent reporting of NT procurement, local jobs and Traditional Owner employment.

8. Recommended Development Sequence

1 - Listen & map

Traditional Owner engagement, cultural mapping, community priorities, biodiversity and groundwater baseline.

2 - Measure	At least site-appropriate solar, wind, heat, water and ecological monitoring before final technology and footprint decisions.
3 - Design	Integrated energy-water-building masterplan with lifecycle comparison of alternatives.
4 - Pilot	Build an initial modular renewable/storage/water-reuse block and verify performance.
5 - Scale	Expand only when environmental and resource-performance thresholds are demonstrated.
6 - Report	Public annual energy, water, biodiversity, circularity and community-benefit metrics.

9. Grounded Corporation Position

Grounded Corporation's proposed model is not anti-development. It is a proposal to make the Northern Territory's emerging AI infrastructure an example of how very large digital loads can be integrated with renewable generation, storage, responsible water use, climate-responsive architecture, circular materials and meaningful participation by Traditional Owners and Territory businesses.

Preferred location strategy: investigate the Barkly / Elliott-Murrarji corridor first because major data-centre and renewable-energy proposals are already emerging there and the region has identified potential for complementary solar and wind resources. However, no final site should be endorsed until Country, water, ecology, wind, transmission and community requirements are satisfied.

Important: This document is a conceptual planning proposal. It is not an engineering design, environmental approval, land-access recommendation, native-title determination or claim that any specific parcel is suitable for development.