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roy.zammataro@douglas.qld.gov.au
Peter.McKeown@douglas.qld.gov.au
Abigail.Noli@douglas.qld.gov.au

SUBMISSION in SUPPORT of COW BAY MICROGRID.

To Rebecca Taranto and Douglas Mayor and Councilors,

This submission is an appeal to both the councilors and council staff to seize the opportunity offered by the possibility of a microgrid installation to service the power needs in the areas between Cow Bay and Cape Tribulation. This submission exhorts you to take this opportunity to improve the living standards and lifestyle prospects of Cow Bay/Cape Tribulation residents that have basically stagnated since the residential subdivision was put in place more than 40 years ago.

Before I expand on the reasons I believe the council and the community should welcome the prospect of a power source servicing the area from Cow Bay north to Cape Tribulation which is clean, green and most importantly reliable, allow me to introduce myself.

[REDACTED]
long and continued relationship with the shire's sugar industry. In addition to cane growing, the family have owned and operated a variety of businesses in the region. From a personal perspective, I have been a resident of the shire for almost 70 years and in that time my business interests have included a building construction company, a grazing property, ferry owner/operator and hotelier.

My property and business interests "over the river" cover a period of 45 years and I would venture to say that not only am I almost certainly the longest active ratepayer in that area but I am also the most familiar and most informed resident on local area issues.

For that reason I feel I can, not only speak with some authority on residents' concerns, but I can also appreciate the frustration they feel by been denied the opportunity to enjoy a lifestyle reflecting at least 20th century standards.

If council adopts a progressive response to the establishment of a microgrid in the area I can see huge benefits accruing to both the businesses and the residents in the area. A few of the benefits I see are listed below:

- Residential living standards will rise immeasurably from present 19th century standards.
- Commodity storage (especially perishables) for both businesses and residents will be comparable to other areas of the nation.
- The frequency of shopping visits would be significantly reduced thus taking pressure off the present under capacity road and ferry systems.
- An affordable and reliable energy source would undoubtedly contribute to healthier and more comfortable living conditions.
- Cost of living (presently in national prominence) would be brought back to more manageable levels if households do not have to fund the purchase, provisioning and maintenance of generators, purchase, maintenance and disposal of batteries and face the cost of purchase and installation of solar panels while trying to manage the uncertainty of their reliability.
- In conjunction with cost of living relief to households the reduction in business overheads would allow them (businesses) to offer not only more competitive prices but allow them to broaden their service offering.
- In summary the whole area could offer its residents and businesses much the same services and facilities as other regional communities.

The reasons listed above outline the benefits that would accrue to the visitors, businesses, and residents in and to that area. As stated, these benefits would include financial advantage, standard of living would improve along with health as well as lifestyle comfort. There is, however, another extremely relevant outcome from a clean-green energy source - namely the contraction of our carbon footprint.

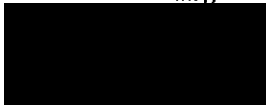
Power produced from petrol or diesel generators indirectly contributes a significantly greater portion of greenhouse gas emissions per unit of power generated than even the energy produced by the much maligned coal fired power stations.

(I have to say I feel a degree of pride, self-satisfaction maybe, that I may get the opportunity to participate in the solution rather than contribute to the problem of global warming.)

Apart from the problems to the planet emanating from the internal combustion engines on generators (namely the before mentioned emissions) there are also a number of localized problems which don't always contribute to positive and healthy neighborly relations. Principal among the difficulties that can arise between neighbors from the operation of a generator include excessive noise, noise at sensitive times and the dissemination of toxic exhaust gases. The installation of a microgrid would eliminate these problems.

I hope this letter, this backgrounding, has made the councilors and its relevant officers aware of my depth of feeling in support of an energy source that a microgrid would supply to the immediate community and environment as well as the global community. If it would please the council, I would humbly request an opportunity to address you in person to answer any questions or concerns that you may have. My desire to have a private audience has been driven by my recent awareness of a campaign (letter drop) opposing the microgrid. This campaign is not driven or supported by any affected residence or businesses but by a person or persons supposedly ensconced in northern New South Wales. I don't think Douglas needs planning inputs from interstate.

Your faithfully,

A solid black rectangular box used to redact the signature of the sender.



21 November 2023

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application –
Material Change of Use, Operational Work and Reconfiguration of a Lot.**

Dear Ms. Taranto

**This letter is written on behalf of Daintree Coast 360 (DC30) members in support of the
development application by Volt Advisory, CA 2023_5496/1.**

Daintree Coast 360 (DC360) formed in 2022 as an advocacy group for residents north of the Daintree River from Forest Creek to Cape Tribulation (Daintree Coast region), strongly believing that community is part of the environment. Our current membership stands at 23 and is expanding.

As residents, business owners and homeowners, we support the application for the following reasons:

- The CA2023_5496/1 development proposes a Hydrogen powered Renewable Energy Facility, Battery Storage Facility and High Voltage Electrical Utility Installation be installed for electrical production on Lot 5 on BK157130, 174 Buchanan Creek Road Cow Bay.

This development is highly beneficial to the community as it aims to provide an efficient and renewable energy source for the residents, businesses and visitors to the region which will result in better environmental outcomes and stronger community resilience.

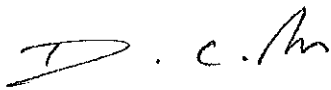
- Port Douglas and Daintree region is Australia's first destination to achieve ECO Destination Certification (<https://douglas.qld.gov.au/port-douglas-daintree-leads-the-way-in-sustainable-tourism/>). However without a reliable and renewable energy source for the approx. 700+ residents of the Daintree Coast, this leaves a major discrepancy as an eco-friendly environment due to the high level of dependency on diesel and petrol generators supporting off-grid systems.
- By reducing reliance on fossil fuels for better environmental outcomes, the CA2023_5496/1 Daintree Microgrid Project supports local businesses in acquiring reliable and cost-effective

power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.

- Reliable and cost effective power across the region will ensure the efficiency and security of essential services. This includes providing power to telephone exchanges, communication towers, the Health Centre, school, SES, Rural Fire Brigades and other vital community infrastructure.

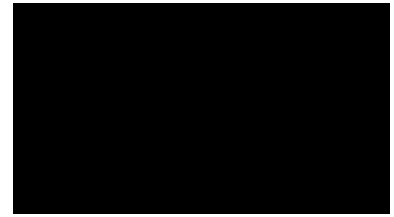
Thank you for your consideration of our letter of support for CA2023_5496/1 Daintree Microgrid Project.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'D. C. Am'.

Chair, Daintree Coast 360

Chief Executive Officer
Douglas Shire Council
PO Box 723, Mossman Qld 4873



21st November 2023

RE: Application reference: CA2023_5496/1 - Development Permit for combined application – Material Change of Use, Operational Work and Reconfiguration of a Lot.

Dear Ms. Taranto,

I wish to submit a letter of support for the development application by Volt Advisory, CA 2023_5496/1.

I am a resident, business owner and homeowner, and have resided in Cow Bay for the last 6.5 years.


I support the application for the following reasons:

- Our home is reasonably well appointed with Solar panels and backup diesel generator, however, the need for using diesel on a regular basis is expensive, and highly polluting. This is harmful everywhere, however with the Daintree Coast being a pristine environment and a sensitive World Heritage area, the current power supply for residents and businesses is inconsistent with environmental best practice. Every possible means of ensuring better management of this unique area should be considered. The Daintree Microgrid project will provide valuable means of doing this, by removing large quantities of polluting fossil fuels and provide a reliable power source for local businesses and residents alike.
- In having a microgrid such as what is proposed in the DA would provide reliable power and security of the essential services which we all rely on and for the businesses located on the Daintree Coast
- The Douglas Shire has ecotourism credentials yet the current power sources for the Daintree Coast do not reflect this. This microgrid would ensure that those credentials are fully deserving.
- I understand that the proposed location and methodology for supplying power to the residents and businesses via under-road cabling will not bring harm to the surrounding rainforest. It will greatly enhance the general amenity of the Daintree Coast by removing both fossil fuel and noise pollution. This is a great win/win situation.

I support this application and urge you to consider the benefits of this project during this approval assessment.

Yours sincerely

A black rectangular redaction box covering the signature area.



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

20th November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application
– Material Change of Use, Operational Work and Reconfiguration of a Lot.**

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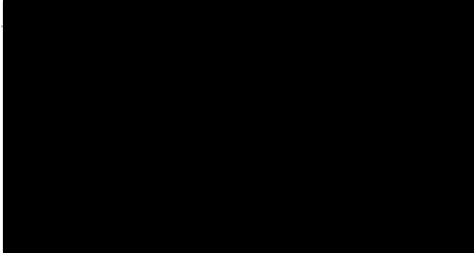
I am writing in enthusiastic support of the DMG project, recognizing the significant benefits it brings to both the local community and the Daintree Rainforest.

1. **Carbon Emission Reduction:** The DMG project stands as a commendable initiative, set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.
2. **Sustainable Development:** After almost four decades of debate, the DMG project emerges as a beacon of sustainable development. It strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.
3. **Preservation of Environmental Values:** Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring the project's positive impact on the Daintree.
4. **Economic Benefits for Local Businesses:** By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.

5. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.

Yours sincerely,



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

20th November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
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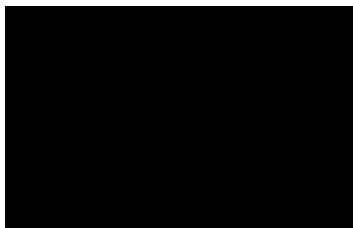
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In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.

Yours sincerely,



Re CA2023_5496/1 Objection to Planning Application for 174 Buchanan Creek Road, Cow Bay.

Attention Ms. Trantino
Assessment Manager
Douglas Shire Council
PO Box 723 Mossman Qld 4873

24 November 2023

I, on behalf of the Australian Tropical Research Foundation, wish to submit objections to the proposed Material Change of Use proposal.

This entire proposal/DA is based on a totally spurious rationale.

It is by no definition a Micro-grid. It is actually an independent, regional power supply, reliant on limited solar input, with significant gas-fired generator back-up. This has been admitted by associated parties at the public meeting in December 2022 at Heritage Lodge.

This is a "demonstration project" (partly funded by Australian tax payers) to demonstrate viability of a "solar-hydrogen-powered renewable energy grid-equivalent system in a wet tropical environment", which Volt Advisory plan to use as a marketing tool for overseas countries. This also explains the demonstrated lack of efforts to engage the community in its planning. Volt Advisory did not perceive the necessity.

The expectation is that the Federal government will supply the seed money (\$19 million), and that investors will provide the expected \$40 million to complete the project.

There is a serious concern as to what happens if the \$40 million does not materialise. The area will be left with a stranded asset.

If it was desired to demonstrate genuine microgrids in the area – there are 3 possible "nodes" (Cape Tribulation, Thornton Beach and Cow Bay (as far as Rainforest Camp)).

Weather

Given the very erratic nature of weather in the region, the levels of cloudiness varies considerably, so the ability of the proposed system to rely on solar input will be very limited. Similarly, the expectation that there will be sufficient solar insolation available to drive electrolyzers to produce hydrogen (itself a very inefficient form of energy storage) is very unlikely to be met.

Grid connect

The proposal originally intended that those connecting would be able to contribute power to the "micro grid"

This raises a considerable number of issues. A standard solar "stand-alone" power system with battery storage, as are common here, would require almost total replacement to become code compliant (as would be required to legally allow grid connection), and to be able to connect with the proposed grid. It appears that this cost, along with the connection costs, will be borne by the property owner, and could be very considerable. Besides, even simple connection, legally requires the building wiring to be code compliant, which for a significant proportion of properties, would be a very costly (and complex) upgrade.

Cost of supplied power.

As electricity prices in Queensland are no longer regulated and it is not known if the Community Service Obligation co-payments will apply to customers of this project, the expected cost per KWH are unknown. A spokesman for Volt Associates, at a public meeting in December '22 said that it would be "cheaper than diesel" (that is, price/kwh/litre diesel). Currently it is approximately 65¢ per kwh (at \$2.00 retail per litre) with a relatively high efficiency generator. For gasoline (lower energy density), about 68¢. However, most residents with stand-alone systems find that they seldom need to run generators, except in cloudy/rainy weather when the proposed project will also be needing to run the stand-by generators, so there is no real gain in fuel conservation.

Encourage energy waste – depends on price /kwh. For large users, the fuel costs are a minor cost, compared with maintenance and associate staffing. The attraction to these potential users, would be that they would be relieved of these additional costs.

An additional concern, especially for restaurants and facilities with large kitchens, is that a large proportion of cooking uses gas (fryers etc). This use of gas is very efficient, compared with converting to electric – especially if the electricity is generated by gas (as would be primarily the case with the proposed scenario.) Adoption of electrical cooking would also place significant additional loads on the system.

Community issues

This is an issue of very long standing (since the mid 80's) and has been, and continues to be, incredibly divisive. As a result, very few residents of the area are prepared to risk community opprobrium by publically taking a position or commenting, either for or against, the proposal. This might explain the lack of submissions on this vital issue.

Some property owners support the proposal, as they expect it to increase property values, and they can sell and leave. The writer knows of a number of residents who have strongly expressed this desire.

There is also the long standing issue of landholders who, for primarily ideological reasons, refuse to install renewable energy systems, this applies particularly to resorts and restaurants. These constitute the major backers (and potential beneficiaries) of the proposed project.

No proper assessment of power demands –

There never been a systematic property to property survey of interest in the project, or of expected demand. There has never been a clear exposition of costs and benefits, in general, let alone to property owners!

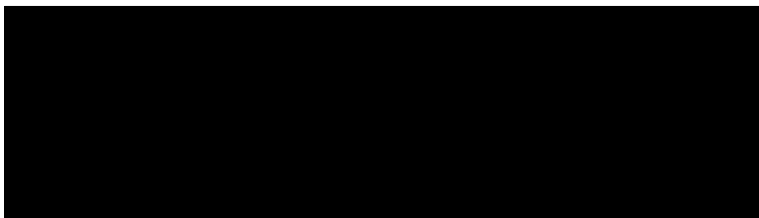
The Federal monies already made available to Volt Associates, would have provided stand alone power system upgrades to a significant proportion of the residents and businesses of the area.

There are numerous other serious issues that I am sure that you are aware of, which I am sure will be addressed by others.

The project is un-needed and un-wanted.

<https://www.business.qld.gov.au/running-business/energy-business/energy-pricing/electricity-prices>
<https://en.wikipedia.org/wiki/Microgrid>

Sincerely



We have been residents of the Douglas Shire since 1988.

[REDACTED]

23rd November 2023

Douglas Shire Council
PO Box 723
MOSSMAN QLD 4873

Dear Sir/Madam

RE: MICROGRID 174 BUCHANAN CREEK ROAD COW BAY - PART LOT 5 BK157130
APPLICATION REFERENCE CA2023_5496/1

I purchased my block of land in 1987 [REDACTED] part of a cleared block of previous farmland known as Portion 13V, Parish of Alexandra County of Solander. My land is located on Silkwood Road directly opposite from the proposed Microgrid Development site on Portion 5V Silkwood Road Cow Bay..

My land has always been residential rural, I believe the Residential Amenity should be maintained on Silkwood Road. [REDACTED]

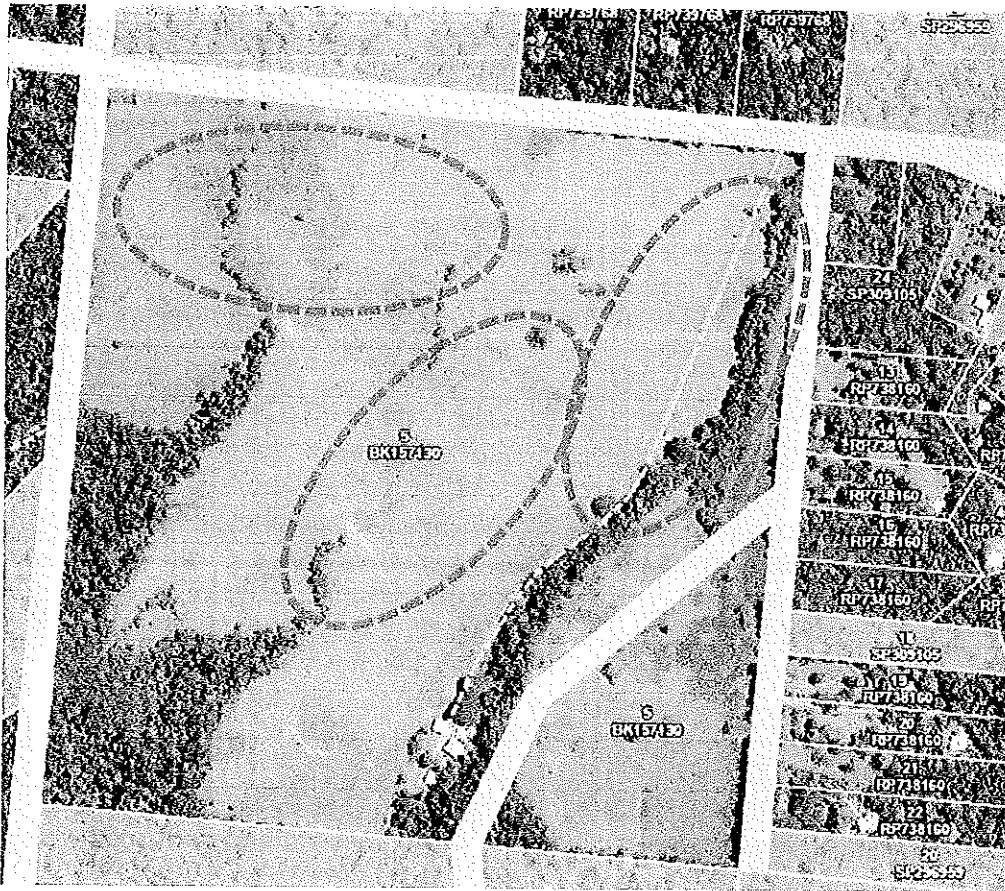
There does not seem to be any intention in the Microgrid Development Proposal to seal/upgrade Silkwood Road. Silkwood Road is a dead end gravel road and will suffer major impacts from construction and regular use with maintenance etc. Council has grounds to upgrade Silkwood Road to a sealed standard prior to Microgrid Development construction. Silkwood Road has major drainage issues as in road washouts in the "wet season", which is well known to Douglas Shire Council. The excess stormwater/heavy rainfall runoff from the eastern side of the Silkwood Road catchment must flow over Silkwood Road to the western side into Portion 5V, which is the Microgrid Development site. The runoff then flows into Buchanan Creek. There is only one small culvert on Silkwood Road which cannot accommodate this large water flow. Council has been for years repairing Silkwood Road because of these drainage issues at the cost of ratepayers. Apart from the drainage issues, Silkwood Road being a gravel road has major dust issues in the "dry season" which the prevailing winds (south easterly), blow the dust into Portion 5V. Dust is a major issue in the maintenance of solar panels so it would be logical to address the dust issue by sealing the road.

In previous years there has been a walking track from the top of Silkwood Road through to Portion 6V which adjoins Portion 5V to the south and is known as Jabalbina. I am opposed to any connection or thoroughfare from Jabalbina and the cul-de-sac at the top of Silkwood Road

I am not opposed to the Microgrid Development as it is a great opportunity to embrace technology but I am opposed to the impacts of such including visual impacts of a large solar farm, construction impacts and increased traffic for regular site operation and maintenance that will have impacts on the surrounding area, ie compromising the Residential Amenity and place further demands on Silkwood Road.

The Microgrid Development will change Silkwood Road from a quiet residential rural road to a commercial road with enormous visual impacts. I implore Council to carefully consider the proposed Microgrid Development, its location and the effects on the surrounding area.

There may be technical reasoning for the proposed location of the Microgrid Development, however it is considered that there are other locations within the subject site which could be equally developed, which would internalise the impacts (dust, noise, traffic and visual) of the development rather than pushing these onto the residents along Silkwood Road. The green ovals on the map below represent the alternative sites.



The following is an extract from the purpose statement under the Conservation Zone Code:


- "Any use of land in private ownership does not affect the environmental, habitat, conservation or scenic values of that land or surrounding area;"

I do not believe that the application has sufficiently demonstrated that the development will not compromise the scenic values of the land or the surrounding area.

There are also concerns that an Offer to Supply and or Costs and Conditions of Supply of a reticulated power source from an Accredited Provider are not known formally to the community.

24/11/2023

Douglas Shire council,
P.O. Box 723
Mossman
Qld. 4873



Re: Opportunity for public comment: 'Microgrid' application, 174
Buchanan Creek Road, Cow Bay.

To whom it may concern:

I wish to oppose this change of use for the land in question. This development is an embarrassment in so far as it is based on bad science and bad planning. It is so bad that one can only conclude that it is a kite-flying exercise for other motives not yet detailed or proposed.

Dreaming Big in Douglas. This marketing slogan is all over your promotional material. But surely, Dreaming Big must have some sober basis to it. Dreaming Big should have some basis in reality. Dreaming Big must not compromise the environmental underpinnings that make Daintree a must-see destination for most Australians. To throw up a dream that can only end in tears for the Shire is irresponsible in the extreme.

The reputation of Douglas Shire Council will be tarnished once this project fails badly.

To make hydrogen one needs water and also lots of electricity. One has to break chemical bonds and this can only be done with energy and lots of it. Once the hydrogen is made, it then has to be compressed to liquid form using even more power. Transporting hydrogen is a nightmare as it will degrade pipes and chambers that it is stored in. It's called embrittlement. Look it up on You Tube. All these problems can't even be solved on an international scale, yet alone by a small shire council.

Given these presently unsolvable problems of hydrogen, one can only suspect that this fairy tale is a pretext for something else. What about getting grid power across the Daintree? A long held dream of a few myopic (perhaps malign) business interests in the area, who can't think of the bigger environmental picture that keeps tourists flooding to their facilities. No serious person is saying that this hydrogen

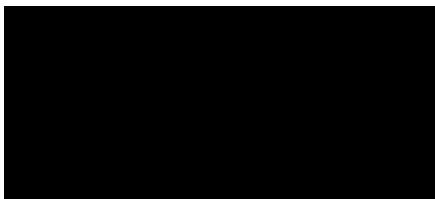
thought-bubble can fly. But to establish a micro grid amid the conceptual confusion would be a huge victory for the forces of narrow-minded self-interest. Once the microgrid is established it also can also be allowed to continually fail, leaving the State Government the only option to establish grid power across the Daintree. We then see the victory of the self-interest brigade who have been salivating on this outcome since the Bjelke-Peterson era. Dreaming Big in Douglas will have delivered a horrible outcome.

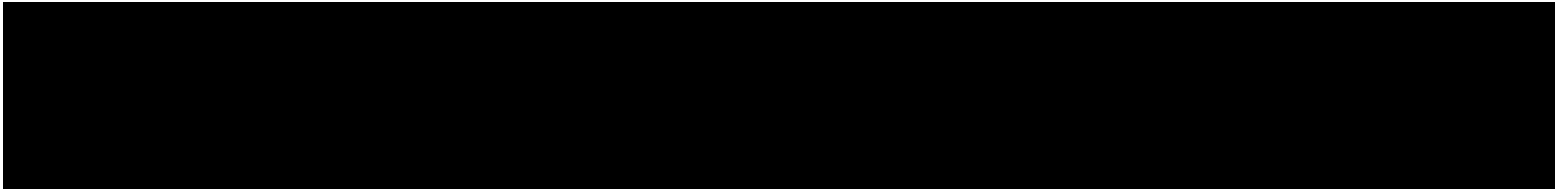
Small councils like Daintree should not make such big decisions when there is no call for this among local residents? It is only supported (initiated) within politically well-connected business interests. Calls from individual local residents are non-existent. If there are any complaints from individual residents, these could easily be solved by spending the present largess of public money on upgrading their individual solar systems.

Establishing a microgrid also presupposes clients willing to connect up. Has (Dreaming Big) Douglas Shire Council ascertained that the clientele exists ready to hook up? I don't think so. Instead the proposal seems to be shrouded in secrecy, and in terms of science and planning, sits like an inverted pyramid ready to fall over at any moment.

Conclusion: The project as described is a scam. Dreaming Big should never lose track of reality. Until this material change of use, as proposed, is underpinned by proper scientific and planning grounds it should not be contemplated. To forge ahead, throwing caution to the wind, will make the Daintree region a laughing stock among any thinking person, dreaming big, and contemplating visiting or living in Douglas Shire.

Your Sincerely



 (i) You replied to this message on 22/11/2023 11:06 AM.


Ph- 0458808058

To whom it may concern at Douglas Shire council,
I am a land owner and soon to be home owner of my beautiful Cow Bay property on Silver Ash Road Cow Bay.

I have lived on off grid stand alone solar systems now for almost 20 years and am very aware of the difficulties of living and managing these systems.

I am completely in favour of the proposed renewable energy and power distribution facility. Such an undertaking would be of huge benefit to the cow bay community and to the tourism industry this area.

I am in full support of this project and also believe that it aligns with the Eco-tourism, Eco-certified Daintree Destination message that is so important both for our region and the global community.

I am more than happy to be contacted for any further information



From:

Sent:

To:

Subject:

Monday, 13 November 2023 3:16 PM

Enquiries

Submission of support for proposed development CA2023_5496 -

O/C As long term residents of the Douglas Shire, we thoroughly approve of this future development.

Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

20th November 2023

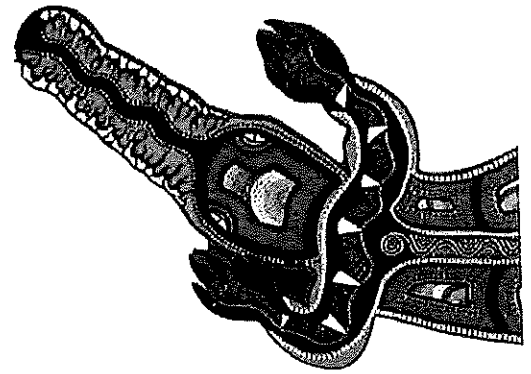
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via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application
– Material Change of Use, Operational Work and Reconfiguration of a Lot.**

Dear Ms. Taranto,

On behalf of the Daintree Discovery Centre, the wholly owned subsidiary of the Gulf Regional Economic Aboriginal Trust (GREAT); I am writing in enthusiastic support of the DMG project, recognizing the significant benefits it brings to both the local community and the Daintree Rainforest.

1. **Carbon Emission Reduction:** The DMG project stands as a commendable initiative, set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.
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G R E A T
Gulf Regional Economic
Aboriginal Trust
Empowerment Through Business

**Make
Contact**

Cairns Office:

The Esplanade
53-57 Esplanade, Cairns City
Queensland 4870

Mailing Address:

PO Box 7786, Cairns City
Queensland 4870

T: (07) 4015 3033

E: gm@greatrust.com.au

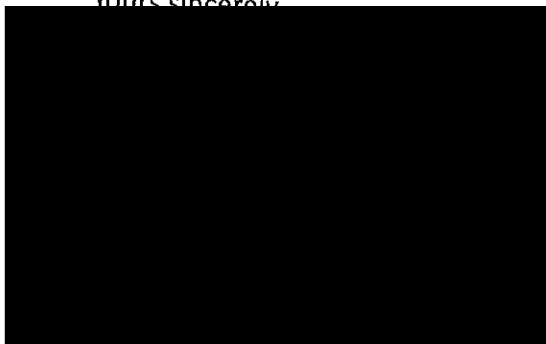
W: www.greatrust.com.au

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5. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

If you aren't familiar with the organisation that owns the Daintree Discovery Centre, ADBT/GREAT was established 25 years ago under the Gulf Communities Agreement negotiated between Century Mine, Queensland State Government and Gulf Native Title groups and was established to administer negotiated funds from the Century Mine, primarily for business development and indigenous ownership/investment in business. ADBT/GREAT manage a thirty-million-dollar balance sheet with no debt, comprised of the **Daintree Discovery Centre**, Doomadgee Roadhouse, Ancient Journeys (art gallery) and Normanton Foodworks.

In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.

Yours sincerely,



[REDACTED]

20 November 2023

Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

Attn: Rebecca Taranto – Assessment Manager Douglas Shire Council
via email: Rebecca.taranto@douglas.qld.gov.au

RE: Application reference: CA2023_5496/1 - Development Permit for combined application
– Material Change of Use, Operational Work and Reconfiguration of a Lot.

Dear Ms. Taranto,

I am writing in support of the DMG project, recognising the significant benefits it brings to both the local community and the Daintree Rainforest. [REDACTED]

[REDACTED]

Note that I am resident of Western Australia and find it unbelievable that in Queensland a LGA is involved in a major project like this. A LGA should be involved in minor matters and not have the potential to delay a major project like this for any reason, however I accept that Queensland has not updated its legislation to have specialist Government boards handle major projects such as this.

Some of the benefits of this project include:

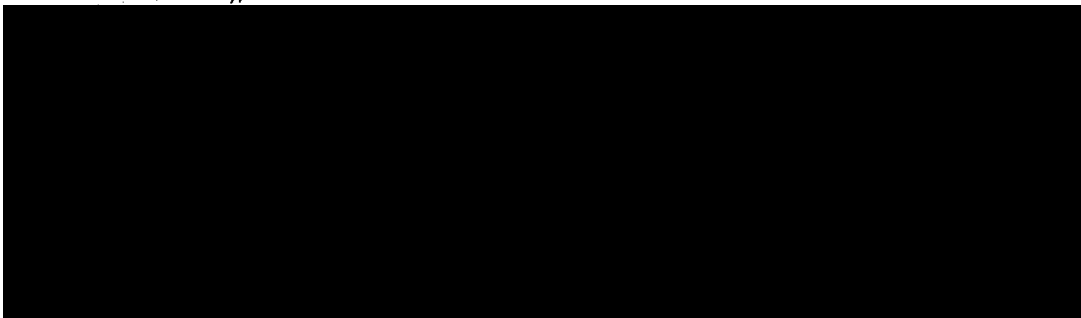
1. **Carbon Emission Reduction:** The DMG project stands as a initiative which will help increase Australia's capability in carbon emission reduction. My understanding is that it is set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.
2. **Sustainable Development:** After almost four decades of lies, political delays, the DMG project emerges as a beacon of sustainable development. The project strikes a balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.


3. **Preservation of Environmental Values:** Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring the project's positive impact on the Daintree. In fact by removing the pollution caused by burning diesel it benefits the region.
4. **Economic Benefits for Local Businesses:** By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.
5. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

In conclusion, the DMG project is beneficial to the Daintree Rainforest. As an Environmental Scientist I ask the question is the Douglas Shire Council going to be hypocritical (i.e by not supporting this project), but at the same time espousing – improving the environment, I am sick and tired of projects being held up or not progressing because of green tape by people who do not have Environmental Science qualifications.

A spade is a spade – there is no possible environmental acceptable reason for the shire to reject this important environmental project to reduce diesel emissions.

Yours sincerely,





To whom it may concern at Douglas Shire Council,

We are land and home owners of our beautiful Cow Bay property on Penda Close, Cow Bay, and we are writing to express our full support of the future Microgrid development.

We feel that the proposed renewable energy and power distribution facility would benefit our community enormously. We have owned our house for 16 years and been challenged continuously with the limitations of relying 100% on solar power. It has been extremely costly, extremely un-environmental and extremely problematic.

We are in full support of this project as we feel it aligns with the Eco-Tourism Eco-Certified Daintree Destination message that is promoted for our region.

Please feel free to contact us for further discussion.

Yours Sincerely,



21 / 11 / 2023

Douglas Shire Council
PO Box 723
MOSSMAN QLD 4873

23rd November 2023



**RE: MATERIAL CHANGE OF USE AND RECONFIGURATION OF A LOT
ENERGY FACILITY 174 BUCHANAN CREEK ROAD
REFERENCE NUMBER CA2023 5496/1**

Rainforest Reserves Australia (RRA) is a volunteer-based conservation organisation located in north Queensland.

Our Board, Members and supporters are distressed by this first step of electrifying the Daintree lowland rainforests for the following reasons:

- 1) There has been no survey of demand for the reticulated power, and no consultation with the broader resident community. The known demand (and vocal support for the project) is commercial/ business interests and these interests will be the main beneficiaries. Latest costs estimate to provide this plan is over \$45 million. This is a very conservative figure and will no doubt increase as cost blowouts will occur utilising new technology not deployed elsewhere before.
- 2) The generated power will be reticulated to all properties from Cow Bay to Cape Tribulation. This will require approximately 150 kms of 3 phase underground cable along the roads. This is an epic engineering challenge that will encounter cost blowouts to consumers who do not want the power and nor will they pay for it. Who will finance this?
- 3) Rainforest Reserves Australia is opposed to providing such subsidised reticulated power, as this will promote development in an area where conservation should be top priority. Rainforest Reserves Australia supports the findings of the Queensland Government in their 2019 assessment "The Daintree Electricity Supply Study"¹, which concluded that upgrading standalone systems would be a fraction of the cost, more reliable and have far less direct and indirect environmental impact.
- 4) The initial \$19 m would go a long way to upgrading both residential and commercial standalone systems; it could begin now, would face no regulatory hurdles, and would be broadly welcomed.
- 5) Most residents would prefer an upgrade of their standalone systems as they've already invested heavily in them. Connection to a grid would be very costly for most and they don't want to start having to pay power bills. A survey of residents was conducted by a local

¹ https://www.epw.qld.gov.au/_data/assets/pdf_file/0015/16008/daintree-electricity-supply-study-full.pdf

individual in 2020. Most respondents (61%) said they would not connect to a reticulated power system, and most (94%) want assistance to upgrade their systems.

- 6) The hydrogen component like this plan has never been implemented anywhere in Australia, nor the world. This technology is only in developmental phase and who will finance this potential failure?
- 7) Micro grids have worked in other parts of the world but only in urban settings with consumers of electricity close to where it is generated and stored. The Daintree Micro Grid will be a world first with many energy experts now publicly saying this can never work efficiently in the context of a rural setting such as the Daintree.

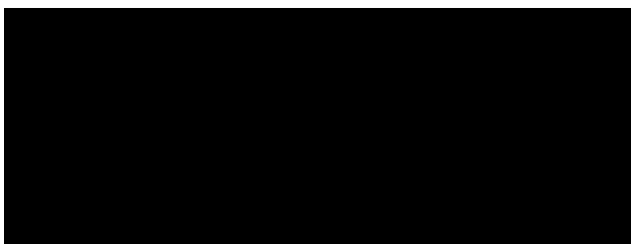
These forests — considered one of the world's most precious ecosystems, as well as being a critical tourism draw — were recently declared Endangered Ecological Communities under the Australian government's *Environment Protection and Biodiversity Conservation (EPBC) Act*. This emphasises the conservation values of currently unprotected land. The last assessment by the Queensland Government in anticipation of an EPBC review, in 1998, recommended no reticulated power until half the properties were placed under conservation regimes, with conservation measures introduced to cover the balance of the Daintree Coast properties.

The most recent significant government spending on planning and conservation was in the period 2004-2008. Since then, spending has been on infrastructure supporting development rather than conservation. Conservation controls existing from that time are rarely enforced. Local, state, and Federal government investment in infrastructure is now undermining conservation rather than supporting it.

The presence of remaining areas of high value suggest that a business-as-usual approach might not be appropriate for a power project in a sparsely populated area of high environmental value.

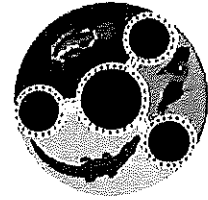
No-one is currently implementing any form of overall planning to shape the future Daintree Coast region and therefore the Material Change of Use for Lot 174 and Reconfiguration of a Lot should be rejected.

Thanking You,





Jabalbina Yalanji Aboriginal Corporation RNTBC
ABN 79 611 886 178 ICN 7002
Jabalbina Yalanji Land Trust
ABN 54 650 095 845



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

21 November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

RE: Application reference: CA2023_5496/1 - Development Permit for combined application – Material Change of Use, Operational Work and Reconfiguration of a Lot.

Dear Ms. Taranto,

I am writing in enthusiastic support of the Daintree Microgrid project, recognising the significant benefits it brings to both the local community and the Daintree Rainforest.

In 2021 for Daintree National Park was handed back to its Eastern Kuku Yalanji (EKY) Traditional Owners.

Jabalbina Yalanji Aboriginal Corporation is the registered native title body corporate (RNTBC) responsible for representing the native title interests of EKY. Caring for and protecting the lands and environment along with supporting Yalanji people (Bama) to live on their country is a key objective for Jabalbina and long held desire of Eastern Kuku Yalanji people.

Jabalbina has a strong working relationship with Volt Advisory Group. In 2022 a cultural heritage clearance assessment was undertaken, engaging with Traditional Owners identified as having the cultural authority to speak for country. Jabalbina provided input and direction to this process, and we believe the approach taken by Volt Advisory to be best practice. Community feedback is positive with unanimous agreement within our Yalanji participants that they would like to see the Microgrid project go ahead and be completed. The Yalanji community living in the area concerned and those wanting to return to the area see the positive environmental benefit of the project and want to protect their country from the current overuse of diesel fuel generators currently powering most homes and businesses

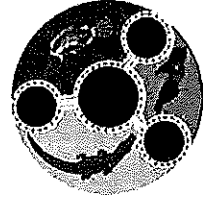
"Yalanjiwarra muruku junkurrjimaka bamangka bubuku"
Yalanji people stand strong together for our people and our land

PO Box 463
MOSSMAN, QLD 4873

Ph: (07) 4098 3552
Fx: (07) 3905 1824

reception@jabalbina.com.au
www.jabalbina.com.au

Jabalbina Yalanji Aboriginal Corporation RNTBC
ABN 79 611 886 178 ICN 7002
Jabalbina Yalanji Land Trust
ABN 54 650 095 845



between Cow Bay and Cape Tribulation. Bama know that the burning of fossil fuels is driving climate change, and this is hurting their country.

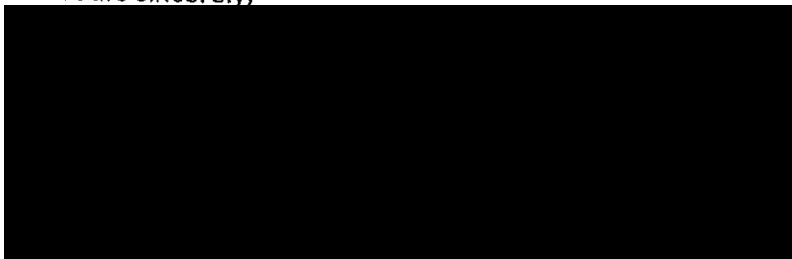
Establishing the solar farm and making available grid power, will greatly improve the access Eastern Kuku Yalanji families to cheap reliable power and this will improve the quality of life of those families returning to live on their country. Access to reliable power is an amenity and a necessity that most Australians across the continent take for granted. Jabalbina has significant interest supporting Yalanji Bama return to live on their country north of the Daintree River and is also working hard to improve the economic participation its people in businesses. Jabalbina maintains these ambitions, whilst it also plays an important role the Joint Management of the Daintree National Park and other natural resource management activities. We are a strong believer that with the Daintree's iconic environmental status and the economic importance of cheap reliable and renewable grid power this project should have been a priority many years ago.

In addition to assisting Traditional Owners in returning to country, the microgrid will also be a valuable source of employment and support economic development in the area. The Eastern Kuku Yalanji Tourism Hub/Cultural Centre planned to be built in Cape Tribulation and completed in 2025. The business model for this project will benefit greatly if it can access clean and affordable power rather than diesel generation.

Jabalbina supports the microgrid as it is proposed.

In conclusion, the microgrid project represents a remarkable step towards providing a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.

Yours sincerely,



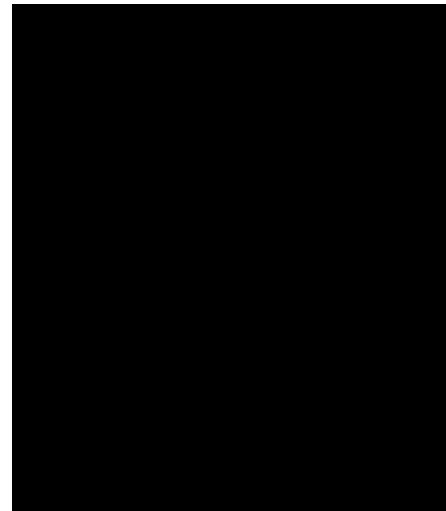
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Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873



20 November 2023.

RE: Application reference: CA2023_5496/1 - Development Permit for combined application – Material Change of Use, Operational Work and Reconfiguration of a Lot.

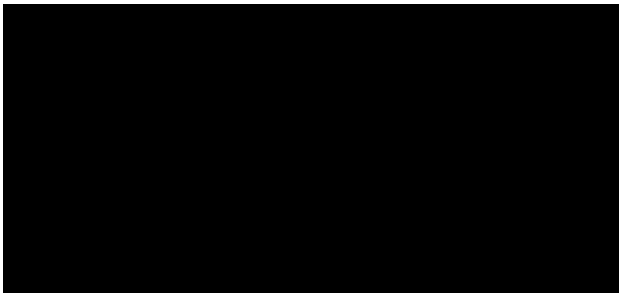
Dear Ms. Taranto,

I am writing in support of the development application by Volt Advisory, CA 2023_5496/1. As a resident, business owner and homeowner, I support the application for the following reasons:

- The Daintree Coast is a near pristine environment, and the current power source, consisting of hundreds of diesel gensets burning up to 4 million litres of diesel per year is inconsistent with environmental best practice in a world heritage rainforest. The DMG project is set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree.
- Diesel gensets produce unacceptable pollution, CO2 & CO emissions, noise pollution, acrid smell and the release of toxic heavy metals into the forest and environment.
- Diesel fumes contain (amongst others) arsenic, cadmium, chromium and nickel - all classified as category 1 carcinogens. The proposed solar/hydrogen microgrid will greatly reduce such health risks.
- A truly green microgrid will be a major drawcard and 'feather in the cap' to the whole of Douglas Shire - able to promote a truly quiet and green destination to the hundreds of thousands of visitors to the area - to which this area financially relies upon.
- Local businesses and homeowners will greatly benefit from reliable, consistent and affordable 'green power'. By reducing reliance on fossil fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.

- Reliable power, resulting of the DMG project, will ensure the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.
- The proposed location and under-road cabling will not affect the surrounding rainforest. It strikes the delicate balance of facilitating construction without adding environmental penalties, promoting the use of sustainable power, and ensuring distribution and installation without promoting further detrimental development in the region. Visual amenity, biodiversity, and cultural aspects will be preserved, ensuring the project's positive impact upon the Daintree.

For these reasons, I support this application and I thank you in advance for reading, taking my submission into account and urge you to consider the benefits of this project as you assess its approval.





Hello,

Please see my letter of support for the Daintree Micro Grid



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

21st November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au

Entity: Douglas Shire Council

RE: Application reference: CA2023_5496/1 - Development Permit for combined
application – Material Change of Use, Operational Work and Reconfiguration of a Lot.

Dear Ms. Taranto,

I write in support of the Daintree Micro Grid project, recognizing the significant benefits
it brings to both the local community and the Daintree Rainforest.

Essential Services like ours must have Reliable power, including power to telephone exchanges, remote and mobile
towers, the Health Centre, school, and other vital community patrons like the fuel station and basic grocery supplies.

Carbon Emission Reduction: The DMG project stands as a commendable initiative,

set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.

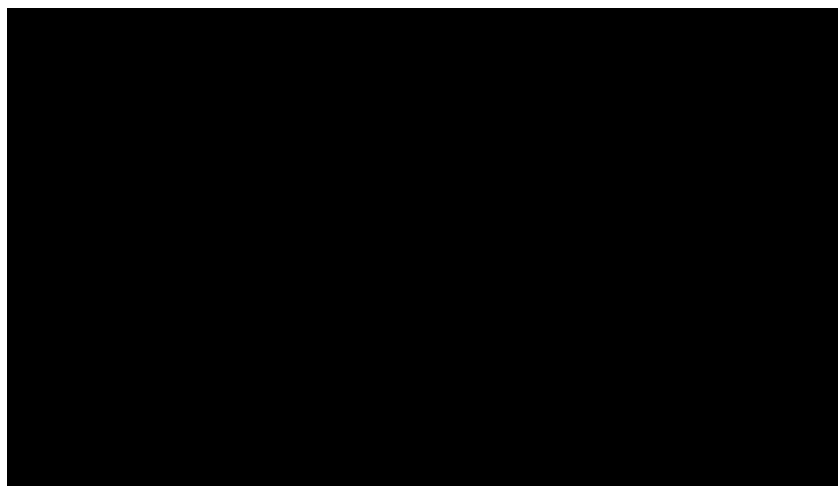
Sustainable Development: After almost four decades of debate, the DMG project emerges as a beacon of sustainable development. It strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.

Preservation of Environmental Values: Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring a positive impact on the Daintree.

Economic Benefits for Local Businesses: By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention and provides more consistent local employment opportunities.

Finally, the Micro Grid is a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the benefits as you assess its approval.

Yours sincerely,





Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

20th November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application
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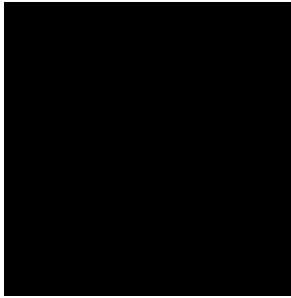
Dear Ms. Taranto,

I am writing in enthusiastic support of the DMG project, recognizing the significant benefits it brings to both the local community and the Daintree Rainforest.

1. **Carbon Emission Reduction:** The DMG project stands as a commendable initiative, set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.
2. **Sustainable Development:** After almost four decades of debate, the DMG project emerges as a beacon of sustainable development. It strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.
3. **Preservation of Environmental Values:** Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring the project's positive impact on the Daintree.
4. **Economic Benefits for Local Businesses:** By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.

5. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

20th November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application
– Material Change of Use, Operational Work and Reconfiguration of a Lot.**

Dear Ms. Taranto,

I am writing in enthusiastic support of the Daintree Microgrid project, as it will bring significant benefits to both the local community, businesses, broader environment, world and the UNESCO listed World Heritage Daintree Rainforest especially.

The environmental, commercial and social benefits of the project are outlined below:

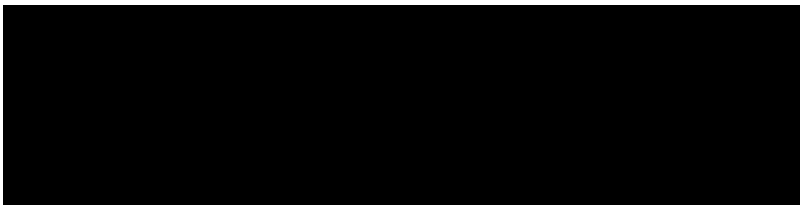
1. **Carbon Emission Reduction:** The DMG project stands as a commendable initiative, set to remove significant carbon emissions from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions. Without the microgrid the current reliance on diesel generators will need to continue and this does not align with community and global interests including those outlined by the Federal and State Governments.
2. **Alignment with Douglas Shire Tourism Eco-Destination Certification:** Approving the DMG Project will mean a lot in that Douglas Shire Council will be supporting environmentally friendly power generation in the UNESCO World Heritage listed rainforest and increasing protection and support for our amazing tourism destination assets. It is also in alignment with the Council's stated approach to developing a world class eco-friendly tourism destination as it will provide an eco-friendly option for the creation of power which is necessary to meet the expectations of the current traveller.
3. **Sustainable Development:** After almost four decades of debate, the DMG project is clearly a more sustainable option than existing power options in the Daintree. It

strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region. I acknowledge the significant effort which has gone into the detail and planning of a sustainable solution which has gone into this project to date. Approval of this project is also fundamental to promoting and encouraging those with a social conscious to appreciate what can be achieved if we work together to come up with sustainable solutions which can improve the existing system.

4. **Preservation of Environmental Values:** Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring the project's positive impact on the Daintree. As mentioned above this project will also support the ability of the local tourism industry in attracting tourists who are aware and focused on environmental concerns.
5. **Economic Benefits for Local Businesses:** By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities. Given the impending likely closure of the Mossman sugar mill the importance of tourism to the local economy cannot be underestimated. As a business, since arriving in the Daintree we have spent a lot of time working to reduce our diesel usage, including downgrading to a smaller generator. However, the sheer reality of operating a business with a restaurant, accommodation and campground in this remote area means that an energy source will always be required and solar is not currently an option for us unless we clear rainforest which goes against our business values.
6. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure. Currently our community is regularly without reliable internet and landline and we are looking forward to this project improving this service and the community amenity. This project will enable equal access and inclusion to services for residents compared to other Queenslanders as supported by the Queensland Human rights Commissioner.

In conclusion, the Daintree Microgrid project represents a remarkable step towards a sustainable future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits - for the environment, the community and the broader world as you assess its approval.

Yours sincerely,



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873

20th November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application
– Material Change of Use, Operational Work and Reconfiguration of a Lot.**

Dear Ms. Taranto,

I am writing in support of the Daintree Microgrid project, as it will bring significant benefits to both the local community, businesses, broader environment, world and the Daintree Rainforest especially.

I support the proposed micro grid and subsequent solar/hydrogen power station for the following reasons:

1. **Carbon Emission Reduction:** The DMG project stands as a commendable initiative, set to remove significant carbon emissions from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol and Federal Gove reduction targets but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions. Without the microgrid the current reliance on diesel generators will need to continue and this does not align with community and global interests including those outlined by the Federal & State Governments. As a business very much wanting to provide tourism services aligned with an environmentally friendly focus I support this project. Due to the energy needs of our business we require a reliable source of power in this remote rainforest location. Following our own investigations we have found that without clearing rainforest solar is not a reliable option for us. Although we have made every effort to reduce energy consumption the use of generators means that there is a fundamental conflict with our values and that of the Shire with the current system.

2. **Sustainable Development- Minimal Environmental Impact:** The DMG project is a beacon of sustainable development. It strikes a balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources and existing infrastructure, thus limiting impacts onto the surrounding environment.

The project assures that no aspect detrimentally compromises the World Heritage values or other local environment. The proposed works on site are considered minimal and low impact and occur within an existing agricultural facility.

The proposed structures are typically single storey shed like structures that would generally be in keeping with a rural setting. Any argument against solar farms not being in keeping with a rural setting would put in question every other solar farm in the country and question Queensland's willingness to facilitate renewable projects.

The proposal reduces visual impacts via the use of underground cabling and networks. No views or aesthetics are detrimentally impacted upon by the proposal, the majority of the facility would be visually obscured from the road due to existing landscaping and a setback of about 400mtrs. With respect to environmental impacts both Wet Tropics Management and The Commonwealth Dept of Environment have deemed the proposed works as minor in nature and inconsequential.

3. **Allotment realignment:** The proposed allotment realignment/lease arrangements are inconsequential being a function of facilitation of the development and are of no grounds for refusal of the development.

4. **Strategic Planning Criteria**

It is considered the proposal is consistent with the strategic planning guidelines required, pursuant to Councils assessment. There are no significant elements of the proposal that would deem the application for refusal under such provisions. Furthermore the application supports and is in keeping with key strategic goals of such planning documents.

5. **Socio Economic Benefits for the Shire:** The proposed solar/ hydrogen plant would be a world first/best practice example of sustainable development which would become a tourist attraction moving forward. With the sugar mill likely to close, tourism for the shire will become an even more important factor for sustainable employment opportunities. The microgrid could provide long term employment opportunities and support the message on a global scale that Douglas Shire Council is serious about sustainability and reducing its Carbon footprint and ultimately preserving the UNESCO listed World Heritage sites of the Rainforest/Reef.

6. **Global Prestige**

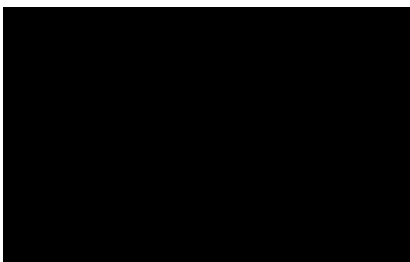
If Council were to refuse such an application, it would detrimentally impact on the Shire's Green credentials and bring global questions as to if the shire supports the preservation of the Rainforest/Reef. A refusal of such a world first/ best practice

application would furthermore damage the Port Douglas/Daintree tourism brand and ultimately the economic prosperity of the shire. If Council were to refuse the applicant I ask what do they propose or do they simply wish to continue burning excessive diesel each year.

7. **Security for Essential Services:** Reliable power, a direct result of the project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure. A significant portion of the population north of the river are elderly and have specific health needs that require reliable power. Pursuant to the UN charter access to reliable power is a Human right. If Council refuses to support this application it is choosing to block what is freely available to every other Australian. If this application is refused we would suggest that the Queensland Human Rights Commissioner could look into the decision further as a Human Rights issue.

In conclusion, the project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. The proposal is considered consistent with the aims and objectives of DSC and demonstrates no detrimental economic, environmental or social impacts to the region or shire.

I urge you to consider the project's undeniable benefits as you assess its approval but also consider the Global ramifications if the project is refused on the basis that the Shire would be, by default, supporting the further use of fossil fuels and carbon emissions when the world is moving away from such technology.



Chief Executive Officer
Douglas Shire Council
PO Box 723,
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20th November 2023

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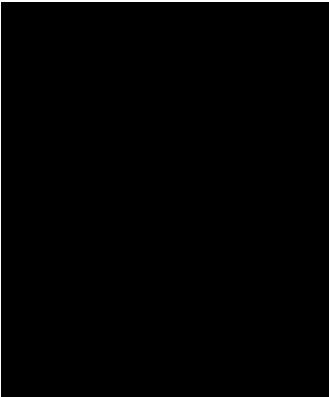
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2. **Sustainable Development:** After almost four decades of debate, the DMG project emerges as a beacon of sustainable development. It strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.
3. **Preservation of Environmental Values:** Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring the project's positive impact on the Daintree.
4. **Economic Benefits for Local Businesses:** By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.

5. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.



Rebecca Taranto

Subject: https://douglas.qld.gov.au/download/planning-services/development_applications/CA-2023_5496-Amended-Application-Confirmation-Notice_ca-2023_5496.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Rebecca

I would just like to give my full support into the proposal of a microgrid North of The Daintree River. I have followed Volt Advisory for many years and they have my full support in this wonderful clean green alternative to the many litres of Dirty Diesel we are spilling out into this pristine part of the world. This will be a wonderful marketing tool for the entire shire of Douglas adding to their Eco hats already in place. Businesses will benefit not only with this marketing tool but also the horrid costs imposed in not only the fuel but the general workings and maintenance on our generators. Other benefits will mean that the elderly and frail will not have to worry about topping their generators with oil and fuel and associated costs in the running of dinosaurs on many properties.

This couldn't come at a better time with the cost of living already at all time highs. So excited to finally see this project come to fruition and a huge shout out to DSC for being so supportive.

Cheers

Rebecca Taranto

From: [REDACTED]
Sent: Tuesday, 21 November 2023 7:08 PM
To: Rebecca Taranto
Subject: Doc 1197551 Rebecca.taranto@douglas.qld.gov.au Entity: Douglas Shire Council RE: Application reference: CA2023_5496/1 - Development Permit for combined application - Material Change of Use, Operational Work and Reconfiguration of a Lot.

Follow Up Flag: Follow up
Flag Status: Flagged

Chief Executive Officer Douglas Shire Council
PO Box 723, Mossman Q 4873
21 st November 2023

Attn: Rebecca Taranto – Assessment Manager

RE: Application reference: CA2023_5496/1 - Development Permit for combined application – Material Change of Use, Operational Work and Reconfiguration of a Lot.

Dear Ms. Taranto, I am writing in enthusiastic support of the DMG project, recognizing the significant benefits it brings to both the local community and the Daintree Rainforest.

1. Carbon Emission Reduction: The DMG project stands as a commendable initiative, set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.
2. Sustainable Development: After almost four decades of debate, the DMG project emerges as a beacon of sustainable development. It strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.
3. Preservation of Environmental Values: Crucially, the DMG project assures that no aspect compromises the World Heritage values or other local environmental values. Visual amenity, biodiversity, and cultural aspects are meticulously preserved, ensuring the project's positive impact on the Daintree.
4. Economic Benefits for Local Businesses: By reducing reliance on diesel fuels, the DMG project supports local businesses in acquiring reliable and cost-effective power for their commercial needs. This, in turn, enhances commercial viability, staff retention, and provides more consistent local employment opportunities.
5. Security for Essential Services: Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval. Yours sincerely,

Rebecca Taranto

From: [REDACTED]
Sent: Thursday, 9 November 2023 1:36 PM
To: Enquiries
Subject: Re CA 2023_5496 Attn Rebecca Taranto

Re:

Property Address: CA 2023_5496 – 174 Buchanan Creek Road COW BAY
Applicant Name & Address: Volt Advisory Group Pty Ltd, Lvl 7,757 Ann Street, FORTITUDE
Proposed Development: Combined Application (MCUI, ROL 1 Lot into 2 Lots & OP Works)

CA 2023_5496

Good Morning

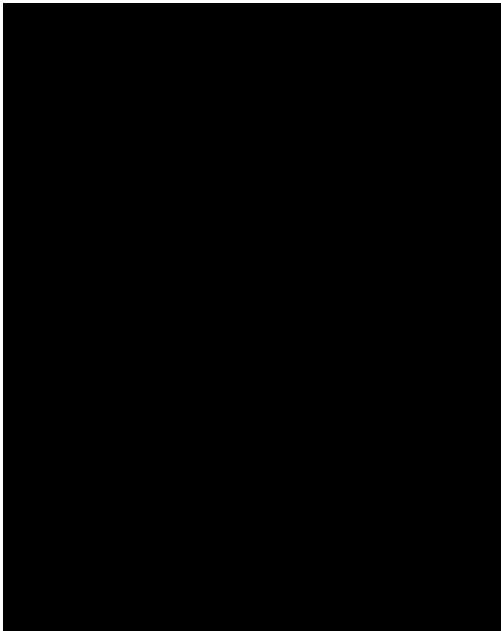
I would like to submit in favour of this application.

This application would be one of the most thorough and complete that DSC has ever seen. The amount of work done to achieve a sensitive development that benefits the community is incredible.

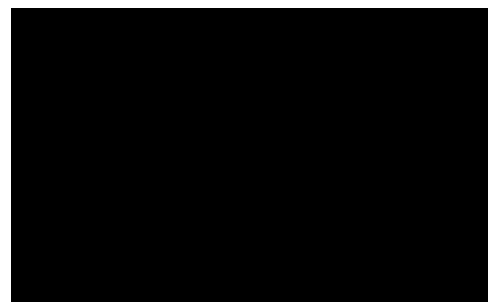
I firmly believe that the environmental footprint of this application is minimal, and the benefits to the community far outweigh any negatives. Thus I urge DSC staff to recommend approval of this long needed project and Councillors to approve it.

Please count me as a resident 100% in favour of this project.

cheers



Chief Executive Officer
Douglas Shire Council
PO Box 723,
Mossman Q 4873



20th November 2023

Attn: Rebecca Taranto – Assessment Manager
via email: Rebecca.taranto@douglas.qld.gov.au
Entity: Douglas Shire Council

**RE: Application reference: CA2023_5496/1 - Development Permit for combined application
– Material Change of Use, Operational Work and Reconfiguration of a Lot.**

Dear Ms. Taranto,

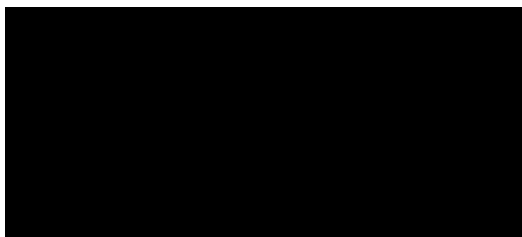
I am writing in enthusiastic support of the DMG project, recognizing the significant benefits it brings to both the local community and the Daintree Rainforest.

1. **Carbon Emission Reduction:** The DMG project stands as a commendable initiative, set to remove between 8,000 to 10,000 metric tonnes of carbon from the Daintree. This not only aligns with Australia's commitment to the Kyoto Protocol but, more importantly, contributes to the preservation of the Daintree's delicate ecosystem by eliminating these emissions.
2. **Sustainable Development:** After almost four decades of debate, the DMG project emerges as a beacon of sustainable development. It strikes a delicate balance by facilitating construction without environmental penalties, promoting the use of sustainable power sources, and ensuring distribution and installation without promoting further detrimental development in the region.
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5. **Security for Essential Services:** Reliable power, a direct result of the DMG project, ensures the security of essential services. This includes providing power to telephone exchanges, remote and mobile towers, the Health Centre, school, and other vital community infrastructure.

In conclusion, the DMG project represents a remarkable step towards a sustainable and prosperous future for the Daintree Rainforest and its surrounding community. I urge you to consider the project's undeniable benefits as you assess its approval.

Yours sincerely,



Rebecca Taranto

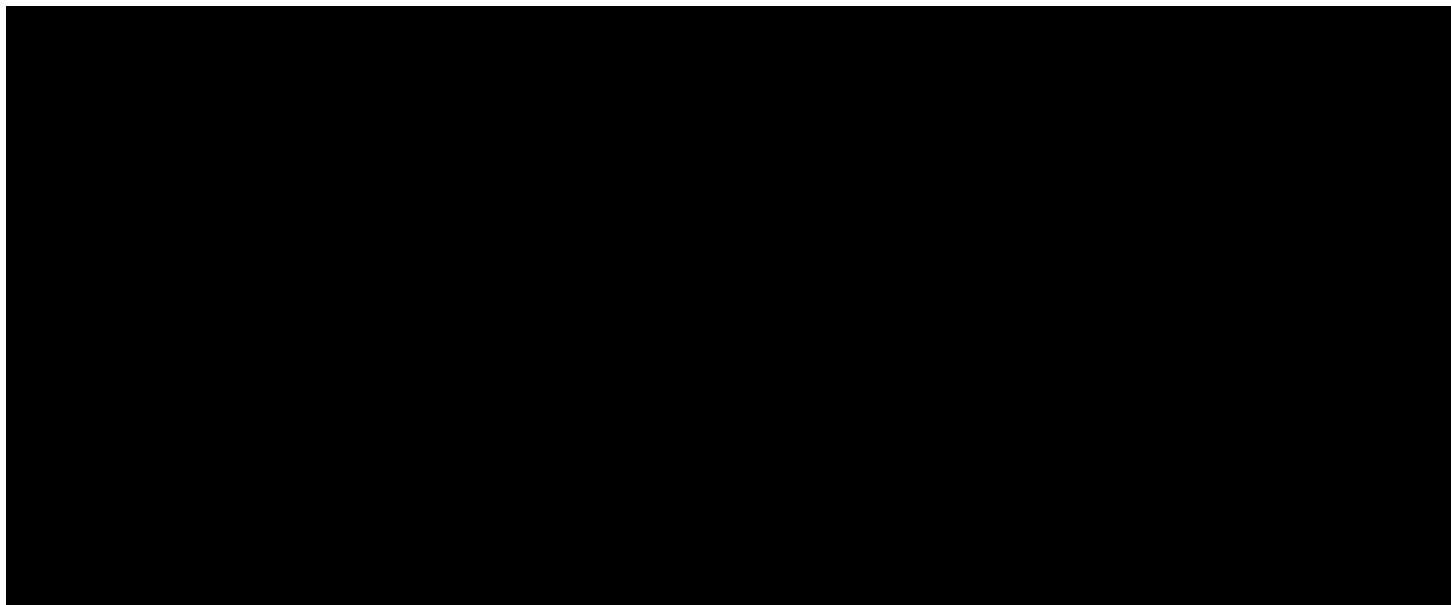
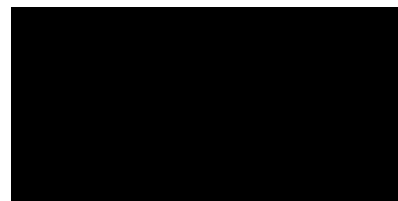
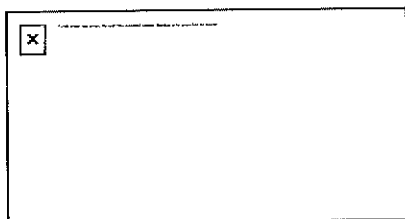
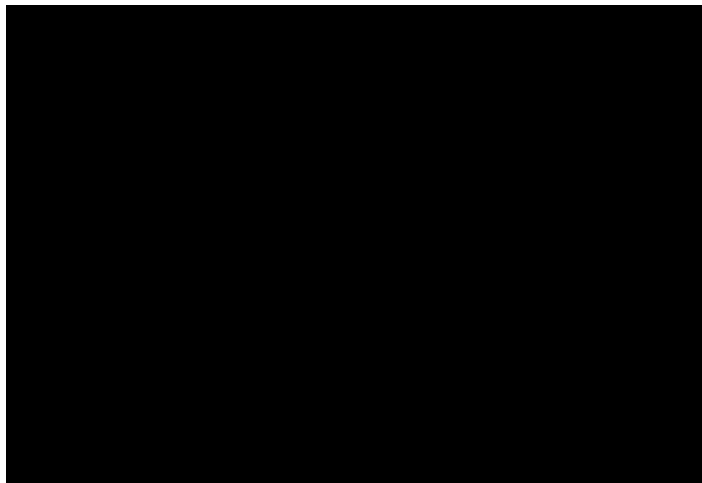
Sent: Monday, 20 November 2023 8:18 PM
To: Rebecca Taranto

Subject: Re: Daintree Microgrid - Public Comment Council Approval - Development Application CA 2023_5496

Dear Rebecca,

As owner operators of an eco-lodge in Cape Tribulation, we support the development application CA 2023_5496 and look forward to the commissioning of this important project that demonstrates the our commitment to reducing emissions in our unique environment by enabling the elimination of the need for diesel derived power generation.

Your sincerely,





Hi DMC Members,


I've just found out it is the final week of public comment for the approval of the Daintree Microgrid with Council. Sharing this with members in case there are others who would like to provide comment before it closes and haven't received notice.

https://douglas.qld.gov.au/download/planning-services/development_applications/CA-2023_5496-Amended-Application-Confirmation-Notice_ca-2023_5496.pdf

As DMC members, we are sending this email to other DMC members as we feel that this project is in line with the focus of the co-op in facilitating tourism in the Daintree.

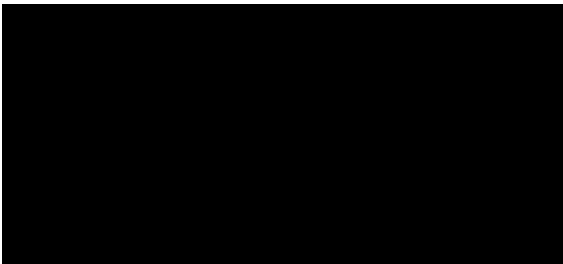

At Daintree Siesta we are particularly supporting this project as it aligns with the eco-tourism Eco-Certified Destination message that is promoted for our region.

Letters of support for the project must be **signed and emailed to Council no later than Friday 24 November to: Rebecca.taranto@douglas.qld.gov.au**, in order to comply.



P.s. For those who haven't heard I stepped down as Chair of the DMC at the AGM (Gaye has stepped into the role). I am still a DMC member and am still very much present in our business and the Daintree.

Thanks for your support over the last year and I look forward to catching up when next our paths cross.



Rebecca Taranto

Sent: Tuesday, 14 November 2023 3:01 PM
To: Enquiries
Subject: Submission for support of CA 2023_5496 174 Buchanan Creek Rd Cow Bay

Re:

Property Address: CA 2023_5496 – 174 Buchanan Creek Road COW BAY

Applicant Name & Address: Volt Advisory Group Pty Ltd, Lvl 7,757 Ann Street, FORTITUDE

CA 2023_5496

Proposed Development: Combined Application (MCUI, ROL 1 Lot into 2 Lots & OP Works)

Hello

I would like to confirm my support for the above application.

I strongly feel that the environmental footprint of this application is minimal. The benefits to the Daintree with this application will be significant in reducing pollution & benefit the community as a whole.

I am 100% support this application.

Regards



PO Box 762
Mossman Qld 4873

sustainabilitydouglas@gmail.com

24 November 2023

Chief Executive Officer
Douglas Shire Council

Via email: enquiries@douglas.qld.gov.au

RE: Development Application Combined Application (MCUI, ROL 1 Lot into 2 Lots & OP Works) - CA 2023_5496 – 174 Buchanan Creek Road COW BAY- Material Change of Use & Reconfiguring of a Lot, Lot 5 BK157130, 174 Buchanan Creek Road, Operational works

Dear Sir/ Madam

Douglas Shire Sustainability Group Inc. (DSSG) is an incorporated association active in the Douglas Shire since 2005, in support of sustainability in this region.

DSSG is a community-based environmental advocacy organisation whose objects are:

- To promote and encourage the adoption of the principals of ecologically sustainable development to all sectors of the community throughout the Douglas Shire;
- To the protection and conservation of the unique environment in the Douglas Shire and its surrounds, including the Great Barrier Reef, the Wet Tropics and World Heritage areas;
- To promote social, economic and environmental balance;
- To promote and support environmentally sustainable practices, education and great environmental awareness amongst visitors to and residents of the Douglas Shire;
- To recognise and promote the sustainable practices of the traditional owners of the Douglas Shire; and
- To promote and encourage the adoption of the principals of ecologically sustainable development to all sectors of the community throughout the Douglas Shire.

The Daintree rainforest is one of the world's rarest and most irreplaceable ecosystems, often described as 'the jewel in the crown' of the Wet Tropics World Heritage Area of Far North Queensland. An international study has rated the Daintree the second most critical and irreplaceable of all World Heritage Areas. The exceptional biological and scientific values of the Daintree Coast mean the conservation, presentation and transmission of those values to future generations must take priority. All development which occurs within this area has the potential to degrade and threaten these ecological values and in recognition of this, Douglas Shire Council has developed a number of planning frameworks and documents to manage and direct development (Conservation Zone/ Cape Tribulation and Daintree Coast local plan code and various overlays). At every level within DSC planning guidelines (Planning Scheme, Strategic Framework/ Overlays/ Codes/ Local plans) the potential for development to threaten the ecological values, biodiversity and unique

tourism potential of the Daintree (and the Conservation zone) is recognised. It is also recognised that any single development which encourages a further development footprint or intensity has a significant potential to threaten the underlying biodiversity and ecological values of the area.

The grounds on which a Material Change of Use can gain approval are therefore extremely limited and require the applicant to demonstrate that it meets the entire requirements of the DSC Planning Scheme including all relevant plans, codes and overlays.

DSSG members do not support the combined application **CA 2023_5496 (MCUI, ROL 1 Lot into 2 lots and operational works 2021_4231/1)**, and do not believe the Development Application (DA) demonstrates compliance with the Douglas Shire Planning Scheme. In many instances insufficient or questionable data is used to support assertions, and the developer is asking Council to exercise discretion in its favour in circumstances where only full compliance to the highest standards should apply.

As this is a technically complex proposal, DSSG submits that Council must seek specialised assessment assistance. It is far from clear that Council staff have the requisite knowledge or experience to make this assessment. Aside from the absence of specific surveys and reports on many topics, the assessor is being asked to rely on assertions of the developer as to matters such as drainage, environmental survey, impact of light and noise etc.

In the event that the DA is approved, DSSG members request that it be approved subject to stringent conditions as to sufficient proof of viability and sustainability, protection of Biodiversity, Visual amenity and environmental values including waterways and fauna, mitigation of nuisance from noise, dust and emissions, mitigation of risk from fire and hazardous chemicals, and proper management of drainage, biosecurity hazards and social disturbance.

The Development Application

The applicant proposes to establish a renewable energy facility (being a combined hydrogen/solar renewable energy plant) on lot 5 BK157130. Operational works within the solar farm include earthworks for drainage and internal access.

The application is a Combined Application comprising:

- A. Material Change of Use- Renewable Energy Facility and Battery Storage Facility (8MW electrical generation solar station and battery storage facility) and;
- B. Material Change of Use- Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power).
- C. Reconfiguring a Lot- creating two lots by lease agreement for a period of more than ten (10) years-Lease Area B and Lease Area C.
- D. Operational Work- Excavation and Fill over 25m³; and;
- E. Operational Work- Work within an unconstructed local government road between Lease Area B and Lease Area C (installation of underground cables and construction of road access driveway and drainage).

Notably, the DA does not include consideration of the impact of electrical distribution via underground cabling in conduits with approximately 68.9km of cables within 56km of road reserve (there will be doubling up of cables in some trenches/conduits) with 27 transformer kiosks and junction boxes/switchgear to be installed. Distribution will extend to all 32 road reserves between and including Cow Bay to Cape Tribulation.

DSSG has significant concerns about this aspect of the Daintree Microgrid Project (the project) and these are articulated at attachment A. Of primary concern is the lack of public scrutiny of the planning for this aspect of the project.

The project

How we got here

Supply of grid power to the Daintree Coast has been a very fraught issue for over the past 30 plus years. It has caused major social controversy and serious conflict. Several surveys of alternatives for provision of power have been undertaken, the most recent and comprehensive study (KPMG Daintree Electricity Supply 2019: conclusions: section 11) concluded SPSs (with the government providing residents with new batteries and other components were the preferred model. Microgrids were not preferred.

We are advised that most of the approximately 600 property owners are fairly satisfied with their stand-alone power systems (mostly solar). However a very vocal pro-power group has formed (including most major businesses), who purport to be concerned about the emissions from their own high diesel fuel usage for generators. Ironically, this group formed the Daintree Renewable Energy Group (DREG) to lobby for provision of grid- equivalent power.

With the support of the member for Leichhardt, they were successful in achieving grant money from the Federal Government. The Federal Government initially provided \$980,000 to DREG in Nov 2019 to develop a plan for the provision of renewable, hydrogen backed, reticulated power for the Daintree Coast.

On Tuesday 20 April 2020, newly elected Mayor Michael Kerr successfully moved a motion by way of Mayoral Minute expressing Council's support for the "Federal Government's Daintree Microgrid project"¹. We assume this 'support' will not influence planning decisions.

In June 2021 a further \$19 million was provided over three years (in Forward Estimates) for providing reticulated power on the Daintree Coast, presumably based on the plan devised as a result of the 2019 grant. That money was provided in full to Volt Advisory Group (the advisers to DREG) by way of an appropriation immediately prior to the last Federal election.

There has been no survey of demand for the reticulated power, and no consultation with the broader resident community. The known demand (and vocal support for the project) is commercial/ business interests and these interests will be the main beneficiaries.

The DA references the 2016 Compass Report (Daintree Cape Tribulation Electricity Survey) as a justification for the project model. This survey comprising telephone calls with 100 people, used inadequate and flawed data sets AND misrepresented survey outcomes in terms of likely residential uptake of a microgrid electricity supply. The DA utilised outcomes from the 2018 Sunverge "Powering Daintree" Report which was selectively based on non-representative consumers (just 4 businesses and only ONE residential dwelling and used known Pro-power advocates and founding members of a small residents group lobbying for a microgrid as the single 'representative' residential dwelling and itself utilised the flawed data from the 2016 Compass survey re likely customer take up and preferred models of supply.

Sustainability

This project had no social licence, being developed without consultation and largely 'in secret'; and demand is unknown. It is our view that many residents of the area will reject the 'opportunity' as they have systems that work well now, and connection costs are unknown and likely to involve significant upgrade to household wiring standards and external cabling. The land lease is only ten years and there is no 'end of life' plan to dismantle and correctly dispose of the materials.

The Queensland Planning Act 2016 and the Douglas Shire Council Strategic Framework highlight that in relation to decision making processes for development, there is a need to consider the broader sustainability of a proposal, including both short and long-term environmental effects, matters of equity between present and future generations, and to promote sustainable use of renewable and non-renewable natural resources.

¹ 20200428-Ordinary-Meeting-Confirmed-Minutes.pdf (douglas.qld.gov.au)

The Micro-grid model proposed in DA is likely to be rapidly superseded by currently evolving changes in technology which include solar panel efficiency and cost, domestic battery storage efficiency and cost, smart metering and energy-efficient appliances. While the rest of the country is moving towards a 'Distributed Electricity' model where consumers produce their own energy through rooftop solar and feed in to the grid using the grid as a Virtual Battery (ref SA Virtual Battery) gaining credits to cross-subsidise or negate night-time energy consumption, this project proposes to effectively replace individual stand-alone energy systems and replace them with a centralised production and distribution network. Additionally, while other grids around the country enable users to feed-in (as above), this proposal has no mechanism or capacity for this and the lack of reference to this deficiency (in a 400+ page DA) is notable!

There is no detail in DA which addresses the long-term sustainability of the microgrid model either financial or in terms of longevity of the various components (e.g. hydrogen storage tanks and other infrastructure) over the 25-year period inferred for the development. Interestingly, the initial lease is only for a 10 year period which would not come close to providing a sufficient return on investment for the development.

The Micro-grid system poses a high risk as a business model due to the above, potential low take-up by residents (and insufficient survey data has been gathered to estimate this), the minimal capitalisation of the proponent developer and the potential for failure (lack of reliability leading to alternate arrangements by consumer businesses and residents) of the production and distribution systems.

While the applicant contends that this project is essential for the sustainable development of the area, it is imperative to highlight that residents have already been successfully utilising small-scale renewable energy systems in the Conservation Zone for 20+ years and most residents now have fit for purpose SPS. These existing systems have proven effective in promoting sustainability without the necessity for such a large-scale development. Therefore, the argument for the indispensability of this proposal in promoting sustainable development is unsustainable, especially considering the risk to the local ecology and the adverse visual and other impacts it imposes on the community.

A key element of the rationale for this DA is that the proposed development will save approximately 10 million /L of diesel fuel used each year to run generators and offset 8-10,000 metric tonnes (MT) of CO₂e annually.

It is unclear how the litres of diesel usage is sourced. Ideally this will be sourced from invoices for fuel purchased by users² and not from 'guesstimates' of proponents³. The resultant savings of emissions seems to rely on direct replacement of diesel for solar and battery/ hydrogen based power. What take up does this assumption require? As previously mentioned, demand from all residents appears to be low and there has been no formal demand survey undertaken.

DSSG submits it is not clear how much emissions will be reduced by this action. These figures have been extrapolated from extremely limited and flawed survey data⁴ (as above) and no substantial or accurate metered data has been sought or gained even from businesses who have reliable fuel consumption figures let alone from household residences who do not. It is essential to challenge these fuel use and CO₂e emission projections/ extrapolations if the ideal electricity provision model is to be determined. This proposed development has not adequately demonstrated it is sustainable or fit for purpose and has a high chance of business failure.

It should also be noted that grid electricity reduces use constraints compared with SAS where users are necessarily careful with consumption. It almost certainly the case that grid electricity means people will use a lot more power. The proposed fossil fuel gas back-up may well have to work harder to meet demand at

² Estimating emissions and energy from fuel combustion guideline (cleanenergyregulator.gov.au)

³ Daintree Report - ARENA 20180316 FINAL page 77

⁴ 2016 Compass Report (Daintree Cape Tribulation Electricity Survey) and 2018 Sunverge "Powering Daintree" Report

times of low solar radiation and result in similar if not more use of fossil fuel. It appears that weather patterns in the area are becoming cloudier, thus reducing available solar insolation, especially in summer when power demand becomes high.

Furthermore, given the Outstanding Universal Values of this region, biodiversity must be paramount consideration, not just diesel use.

The proposed lot reconfiguration associated with this development becomes problematic when project viability comes into question, as the Conservation Zone includes the 'outcome' that further lot reconfigurations do not occur, except for "essential community infrastructure" (and a small number of other exceptions irrelevant to this development). The proposed development has NOT adequately demonstrated it is for 'essential community infrastructure' and there is extensive evidence to support this (see KPMG Daintree Electricity Supply 2019 and other comments above).

Equity

An inequitable approach to electricity access for residents/consumers has been proposed in the DA whereby only existing holders of a DA (i.e. no new residents or developments) will have access to the electricity produced AND existing residents both commercial and residential will only be entitled to the amount they already produce and consume. No detail at all has been provided of estimates done to ascertain these volumes and it is inconceivable that this could be in any way realistically calculated or demonstrated.

It is certain, however, that IF the development were to gain approval and be constructed, demand would rapidly outstrip supply due to the development impetus provided, leading to

- System failure, brown outs and routine use of (noisier and more polluting) back-up generators (currently designated as for emergency use only) and
- Lobbying for an extension to the solar farm area
- Lobbying for an alternate additional solar farm probably at Cape Tribulation

It is an inflexible system that cannot be scaled up as needed NOTE: the land area of the proposed development site is limited and the proposed solar farm array sizing utilises almost all of the available lease area meaning the array sizing cannot easily be increased and also that there is not the required area of land remaining to provide the vegetation and landscaping which is a usual requirement of any such new development.

Major Hazards

The proposed infrastructure/ technology (both battery and hydrogen as well as LPG storage) poses an unacceptable risk in relation to fire and lightning strikes which are common in tropical areas. Also, no consideration appears to have been given to ongoing environmental changes due to Climate Change including increasing risk of bushfires and lightning strikes, increasing temperatures and humidity (affecting both generation and storage plant and equipment). This is a potentially dangerous development and to leave it unstaffed many hours of the day/night is extremely unsafe.

Insufficient risk assessment and mitigation measures have been undertaken by the applicant and there appears to be no fire safety or evacuation plan for any on-site staff or nearby residents. The HAZMAT Plan in the DA is insubstantial and inadequate given the nature and complexity of the proposed development

Significant risks is posed by limited road access and exit for workers and guests of nearby accommodation providers in the case of a gas explosion, fire, chemical spill or any other kind of emergency requiring evacuation

Further to this, the experimental technology proposed by hydrogen power generation poses a significant risk of fire and chemical hazard to the site area and its nearby surroundings.

Batteries

The batteries to be used are LFP, and while these are less volatile than lithium-ion batteries, they can still pose a fire risk if misused. They're still lithium-ion batteries, so they can be damaged by overcharging and catch fire if they're damaged. LFP batteries are not exempt from thermal runaway as they share the same structure as lithium-ion batteries. Anodes and cathodes are located on each side with separators in the middle, and both kinds of batteries are filled with a flammable electrolyte solution. In addition to thermal runaways, other external factors such as short circuits or mechanical shock may also lead to battery explosions. To reduce the likelihood of these occurrences happening it is essential that safe handling practices are observed at all times including careful transportation procedures designed specifically for protecting sensitive electronic components like lifepo4 batteries from vibration or impact damage.

"It is clear from the number and frequency of incidents that thermal runaway and battery fires are a serious risk that must be proactively managed by the owners, operators, and constructors of BESS systems. Global BESS fire events in Europe and North America that have highlighted that this failure mode is not unique to a particular manufacturer or design, but that the hazard is inherent in the technology. Batteries must be protected from day one of construction and there must be a zero tolerance approach to battery abuse. Battery management systems must be sophisticated, monitored, and responded to. Gas detection, explosion prevention, fire detection, and fire suppression as well as a robust emergency response plan are essential to mitigate the damage if a thermal runaway event does occur"⁵.

Solar panels

Photovoltaic panels may contain hazardous materials, and although they are sealed under normal operating conditions, there is the potential for environmental contamination if they were damaged or improperly disposed upon decommissioning. Concentrating solar power systems may employ materials such as oils or molten salts, hydraulic fluids, coolants, and lubricants, which may be hazardous and present spill risks. Proper planning and good maintenance practices can be used to minimize impacts from hazardous materials. There is no evidence the applicant has considered this issue.

Construction of solar facilities on large areas of land requires clearing and grading, and results in soil compaction, potential alteration of drainage channels, and increased runoff and erosion. Engineering methods can be used to mitigate these impacts. There is no evidence this has been considered.

The construction and operation of solar facilities generates particulate matter, which can be a significant pollutant particularly in areas such as national parks and wilderness areas. The developer claims little or no particulate matter is generated from this development.

Solar farms may create a heat-island affect, which could heat up the local micro-climate. Heat-island mitigation studies have found that temperatures decrease with every percentage increase in tree canopy cover. The developer has asserted he cannot install landscaping due to negative impact on power generation.

The developer claims that although individual panels or small groups of panels on a common alignment will produce glint and glare it is not sufficient in itself to have any overflight impacts for birds or aircraft/helicopters. There is no evidence provided to support this assertion.

Environmental values

The DSC Strategic Framework, Conservation Zone and the Cape Tribulation and Daintree Coast local plan code all give a high level of importance to ensuring the protection of biological diversity and ecological functioning. The following demonstrate the project has a negative impact on environmental values

⁵ Battery Energy Storage Systems and the rising risk of thermal runaway (marsh.com)

- The increased development in the conservation Zone likely to result from the proposed intervention will undermine the intent of the Conservation Zone, creating a precedent for further unsustainable developments
- The proposed micro-grid will provide a stimulus for energy demand in the Conservation Zone and become a catalyst for further expansion to the solar production infrastructure increasing the threat to inherent conservation and ecological values
- The increased development in the Conservation Zone resulting from the proposed development will further alienate existing habitat, transport corridors and highly localised flora and fauna undermining the region's ecological values and biodiversity
- Fencing of the proposed project site will prevent movement of fauna from the adjacent National Park to other areas of the park and to adjacent roadside verges and transport corridors
- Endemic local fauna such as tree kangaroos, dingoes, reptiles, ground birds and cassowary that are regularly sighted on Silkwood Rd will be impacted by the development activity
- Impacts on Buchanan creek (and associated impacts on broader ecological functioning and water catchment quality)

The developer has identified potential impacts from the proposal.

"There is the potential of indirect impacts on the integrity of adjacent vegetation habitats along Buchanan Creek through; • accidental release of fuels, oils, lubricants and other hazardous materials from machinery during construction at the solar farm generation site. • Potential for construction and general vehicle movements/ machinery to act as dispersal vectors for invasive species. • sediments may be mobilised into adjoining vegetation/wetlands in periods of unexpected rainfall."

In our view, the proposed mitigations are either unable to be tested or are clearly insufficient.

Visual amenity

The proposed renewable energy facility, battery storage and associated works would pose significant visual impact on the surrounding area, particularly on the properties located on Silkwood Road. The applicant has put forward to utilise and 'thicken' existing roadside vegetation – this is unacceptable. Vegetation cannot be relied upon in the first instance nor in perpetuity to maintain a visual break (the nature of vegetation being that it takes years to establish and achieve the screening effect the applicant is relying on and that it is subject to disease, damage and decay). Furthermore, it is particularly concerning that screening is proposed only on the nature strip, over which there is no means to enforce the applicant to maintain the health, number or visual effect of the trees. There is no effort to account for screening on the subject land, vegetation or otherwise.

The applicant, in assessing the visual impact of the proposal to the properties along Silkwood Road, refers primarily to the glint and glare from the panels. While this is concerning, particularly with regard to "vegetation screening" aforementioned, there are a number of issues also not addressed and which must be considered:

The view of an 'industrial-scale' development (even if partially screened) to residents of Silkwood rd. and visitors to the two accommodation houses on the road, will severely impact the 'Daintree Experience' for all.

Furthermore, access gates and driveways will create a huge break in any vegetation buffer and, given the commercial nature of the development, represent a much larger visual impact incongruent with the current farmland use of the lease area

The 1.8 - 2 metre high security fencing is also proposed to the perimeter of the project, presumably with associated signage. This is unacceptable in the context of the residential properties opposite who will have views of this, whether through thin vegetation, or access ways.

The above issues present an unreasonable detrimental impact, which cannot be appropriately managed with the project design. To achieve appropriate visual amenity, the project size (given the constraints of this site) would have to be substantially smaller, meeting setbacks of other development in the area, which are well in excess of 60m.

The site plan at a 1:1000 scale shows solar panels set back as little as 5m from the Lease boundary at Silkwood Road. If these are accurate this represents a significant visual impact and should not be approved given the normal 20m setback for infrastructure.

The proposal notes that there is no native vegetation removal proposed. Aerial imagery show several scattered trees throughout the site, and the plans indicate solar panels in these locations indicating they will require removal. There is no detail on the type of trees these are – whether they are native or not.

While the DA contains reference to a biological audit of the site being prepared, it is not attached so assessing the biological, ecological, and avian significance of this site audit is not possible.

Buchanan Creek

Buchanan Creek is a significant adjacent waterway and it is not clear from the project documentation that there is adequate protection from polluted or contaminated water, erosion from project-created flooding and drainage surcharge routes or other significant polluting events.

It is not clear from this plan or from a site survey how drainage can ultimately be directed away from Buchanan Ck:

- the entirety of the proposed lease areas B and C have fall and drain into Buchanan Creek.
- a significant amount of water traverses the proposed project site as an overland flow line from the National Park above the site AND from Lots 19 - 22 opposite the site (via a culvert under Silkwood Road and a roadside drain on the western side of Silkwood road). The amount of water during regular flood events in this area (3+ times/year) is such that DSC is required to repair this section of Silkwood Road from washout after each such event (please consult your engineering and maintenance sections).
- the DA for this project has specified there are no significant drainage patterns on the proposed site. This is incorrect. A comprehensive drainage survey for the site during flood events needs to be undertaken to ensure any engineering works take appropriate account of this drainage line.
- it is also not clear from the DA how rainwater will be collected from the solar array and directed to the 110,000L water storage tank. Detailed engineering documentation has not been provided to demonstrate these will also not create erosion through overflow during flood and high rainfall events and that contaminated or sediment rich water will not enter Buchanan Creek due to this intervention.
- an erosion and vegetation management plan specific to this flow line and the entire site needs to be provided to ensure Buchanan Creek is not compromised by this development on its immediate eastern boundary.

Water

It is not clear how much water is required for the hydrogen aspects of this project. This detail must be included as part of the assessment so as to ensure sufficient water is captured for the process to be self-sufficient. It is unclear how the water is captured from the solar array to the on-site water storage.

Clearly expert assessment is required.

Assessment

The proposed DA is not aligned with and contradicts the stated purpose of the Queensland Planning Act 2016, the DSC Planning Scheme, Conservation Zone code 6.2.3, the CT & DC Planning code (Precinct 5) and a

number of relevant overlays. It would inevitably lead to increased and potentially unsustainable development threatening the natural biodiversity.

Douglas Shire Council Strategic Framework

The strategic framework has as its base significant concepts, including:

- *The unique environmental character of the Shire comprising internationally renowned landscapes, ecologically significant rainforest systems, sensitive coastal systems and areas of unsurpassed natural beauty, are maintained in association with sustainable development practices, which seek to minimise the effects of development on the natural environment.*

The strategic framework sets out that *equitable access should be provided to a complete range of services.* This development proposal does not represent any step towards equitable access to services (i.e. electricity) as:

- It is limited in terms of the number of customers able to connect to the system, with potential to increase social inequality
- It is proposed to offset the consumption of diesel generator use in the Daintree - primarily used by large businesses, i.e. the project does NOT primarily service the needs of the local community or lead to greater social equity, it is a benefit primarily to large business operators
- Does not anticipate being able to cater to 'new customers' i.e. future generations
- Does not have scope to further expand the project, without greater incursion into land in the Conservation Zone, including all associated detrimental impacts on visual amenity, environment and sustainability

Conservation Zone

The proposed DA is not aligned with the stated purpose of the Conservation Zone code (6.2.3):

1. *The purpose of the Conservation zone code is to provide for the protection, restoration and management of areas identified as supporting significant biological diversity and ecological integrity.*
2. *The local government purpose of the code is to:*
 - (a) *implement the policy direction set in the Strategic Framework*
 - (b) *conserve and maintain the integrity of biodiversity values, wildlife, habitats and other significant ecological assets and processes over time, across public and private lands.*

The Proposed DA is likely to significantly impact biological diversity and ecological integrity (wildlife, habitats, and other significant ecological assets) of the zone by

- Facilitating and encouraging further residential development and current development intensity
- Facilitating and encouraging further SME and commercial development and current development intensity
- Facilitating and encouraging increased visitor numbers (both day-trippers and overnight stays)

The proposed DA

- makes minimal and insufficient provision to protect scenic amenity
- threatens the biological diversity and ecological integrity of immediate surrounds and the zone as a whole
- affects the environmental, habitat, conservation and scenic values of both the proposed lease site and surrounding area
- is not for a low intensity facility
- has not sufficiently demonstrated a need and or provided sufficient evidence that it will have a minimal impact on the environmental and scenic amenity values of the site or surrounding area
- has not provided evidence that the DMG is essential community infrastructure as required for lot reconfigurations - 'essential community infrastructure'.
- does not demonstrate that it is self-contained through the use of appropriate on-site or nearby rainwater collection and storage, sewerage treatment and electricity generation

In addition, the DA specifically contravenes many Performance Outcomes identified in Table 6.2.3.3.a - Conservation zone – assessable development. The proposal does not meet the performance outcomes, as described below:

At least PO3, PO6, PO7, PO11 and PO12 are not met. The applicant has no intention of meeting these performance outcomes.

PO6 -The 'alternatives' proposed for PO6 do not meet the acceptable outcome. Solar panels are reflective and are not provided in colours that blend in easily. The development cannot be said to be subservient to the surrounding environment.

PO7 - The 'alternatives' proposed for PO7 do not meet the acceptable outcome as the balance of the site will not be vegetated, and the proposal for screening the view from Silkwood Rd is not sufficient. There will be no rehabilitation of natural processes on this disturbed site and the environmental integrity of the area will not be improved by this development.

PO12 - Constant nocturnal light and full boundary security fencing at up to 2 m high will serve to impede the free movement of native fauna including dingo, cassowary and reptiles all of which are currently common and regularly seen in and adjacent to the proposed project area.

PO3 - It appears from the scale drawings of the site plan that solar arrays which can be considered to be 'structures' will be installed less than 20m from the lease boundary along Silkwood Road and likely within 5m or 8m. No variation to the 20m setback requirement should be allowable.

PO4 - Whilst the values of the site may not be adversely effected, the values of surrounding areas certainly are adversely effected. The scenic values of Silkwood Rd are negatively impacted by not only the structures but also the 2 m high security fence surrounding it. The fencing itself will have an adverse impact on conservation values in that native fauna will be excluded from traversing the site, including to access Buchanan Creek. It is not correct to describe the structures on the site as subservient to the natural environment – they couldn't be more alien. Constant nocturnal lighting will negatively impact native fauna.

PO5.- There is no evidence that the project overall will deliver a reduced carbon footprint for the region (see discussion above) It is the distribution cables that are said to deliver this advantage, however this DA is about the solar farm aspects only. In addition see PO4 re impact on native fauna and scenic amenity of surrounding areas.

PO6 -The 'alternatives' proposed for PO6 do not meet the acceptable outcome. Solar panels are reflective and are not provided in colours that blend in easily. The development cannot be said to be subservient to the surrounding environment.

PO7 - The 'alternatives' proposed for PO7 do not meet the acceptable outcome as the balance of the site will not be vegetated, and the proposal for screening the view from Silkwood Rd is not sufficient. There will be no rehabilitation of natural processes on this disturbed site and the environmental integrity of the area will not be improved by this development.

PO8 - It is not correct to say that the development is complementary or harmonises with the surrounding environment. The development requires significant earthworks to site buildings, drainage lines and roadways.

PO 9 - the development does not maintain the scenic values of the surrounding land and does not minimise visibility from external sites i.e. Silkwood Rd. It does not protect the ecological values of either the site or especially the surrounding land.

An erosion and sediment control plan has not been provided, making it impossible to assess this PO.

PO10 - Buchanan Creek carries a huge amount of water during flooding events - several times in a normal wet season. The development poses a pollution threat due to site run-off. There has been no hydrological studies undertaken. Buchanan Creek is a significant adjacent waterway and it is not clear from the project documentation that there is adequate protection from polluted or contaminated water, erosion from

project-created flooding and drainage surcharge routes or other significant polluting events. It has not been demonstrated that appropriate setbacks to Buchanan Creek have been provided (see also comments regarding impacts to Buchanan Creek)

While the application documents note that site excavation is 'minimised', there is still great concern with regard to potential impacts from excavation, particularly on drainage patterns and impacts to Buchanan Creek and appropriate buffers to Buchanan Creek has not been provided. An erosion and sediment control plan has not been provided, making it impossible to assess this PO.

PO11 -Site area will be disturbed as part of the construction of development. No rehabilitation has been proposed. This would be essential in maintaining (and improving) the environmental integrity of the area. This is of particular importance due to the proximity to Buchanan Creek, and potential for contamination, erosion and other environmental impacts from drainage, construction and ongoing management processes.

Local Plan - Cape Tribulation and Daintree Coast

The intent of this local plan is to minimise the impact of development, and ensure that development allowed within established residential areas maintain a low environmental impact. The need for the local plan was established from recognition that development associated with 'rural residential style' lots in the Daintree posed a risk of significant detrimental impacts on the ecology and landscape character of the area (see 7.2.1.2 of the local plan code which covers the context of the plan in detail). Section 7.2.1.2 also acknowledges the compounding nature of further development spurring increased services and infrastructure, which in turn leads to more development pressure and associated detrimental impacts. It highlights the need for preserving the natural environment, landscape character and low-key nature of development and intrinsic attractiveness of the area.

The purpose of the Cape Tribulation and Daintree Coast local plan code clearly sets out how this intent is to be achieved.

(1) The purpose of the Daintree River - Bloomfield River local plan is to retain the attraction of the area as a very low-key, largely undeveloped nature-based recreation environment, based on Douglas Shire Planning Scheme 2018 Version 1.0 Part 7: Local plans Part 7: Page 4 the exploration and appreciation of the natural environment and to ensure that any development that does occur is appropriate and does not place additional pressures on the values of area.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) areas within the local plan are appropriately managed to protect biological diversity, water catchment quality, ecological functioning, beach protection and coastal management, scenic amenity, and historical and cultural values;

(b) the natural character of the locality is protected, and where degraded, restored or enhanced;

(c) new development does not occur, with the exception of development located within, and consistent with the respective precinct intents for:

(i) Precinct 1 – Conservation precinct

(ii) Precinct 2 – Low impact residential precinct;

(iii) Precinct 3 – Low impact commercial precinct;

(iv) Precinct 4 – Low impact community purpose precinct;

(v) Precinct 5 – Low impact rural production and tourism enterprise precinct;

(vi) Precinct 6 – Low impact tourism accommodation precinct;

(d) where development occurs it is:

(i) very low scale and remains within the limits imposed by the vehicular capacity of the Daintree River ferry crossing, the Alexandra Range road crossing and the local road network;

(ii) sensitive and sympathetic to its remote location in an area of unique biodiversity, ecological, conservation and scenic amenity value;

(iii) self-contained through the use of appropriate on-site or nearby rain water collection and storage, sewerage treatment and electricity generation;

(e) adequate services and facilities for settlement areas and an appropriate level of economic opportunity for local residents are provided

This purpose will be achieved through:

- Appropriately managing areas to protect biological diversity, water catchment quality, ecological functioning and scenic amenity
- Where development occurs, ensuring it is:
 - Very low scale
 - Sensitive and sympathetic to its remote location [...] ecological, conservation and scenic amenity value
 - Self-contained through the use of appropriate on-site or nearby rainwater collection and storage, sewerage treatment and electricity generation

This purpose is not served by this DA as the development

- Is NOT low-key and will inevitably lead to increased development and resident population (see KPMG 2019/ Sunverge 2018) as well as enabling higher energy consumption as a result of increased availability of off-site energy supply. Clearly this is considered to be contrary to the preferred outcomes of this plan.
- Is not sensitive and sympathetic to its remote location in terms of biodiversity, ecological function, conservation and scenic amenity (see further detail regarding impacts on environmental/ecological function, Buchanan Creek, scenic amenity below)
- Will affect the natural character of the locality
- Does not attempt to restore or enhance degraded local character (where the broader local character is low-land tropical rainforest, this historically cleared site can be considered 'degraded', and any development should include restoration and enhancement of natural environment)
- Will place additional strain on the capacity of the Daintree River ferry and Silkwood Road during construction
- Is a new development and inconsistent with the respective precinct intents for Precinct 5 (see detailed assessment in section C regarding Precinct 5)

With specific regard to the assessment criteria of the Cape Tribulation & Daintree Coast local plan, the proposal fails to demonstrate an acceptable outcome as follows:

PO1 - See discussion above re development.

PO2 - The developer has not properly answered this PO (which applies to all development in the Local Plan area). No comment re fire-fighting services

PO3 -The developer does not address or make provision for sanitary services post construction and does not address wastewater or effluent processes

We have seen no data about water usage and waste from the production of hydrogen. ,

PO5- The DA does not adequately detail strategies for the protection of natural water resources (Buchanan Creek) or remnant vegetation along the creek/lease boundary from wastewater, sedimentary inundation, chemical spills, excessive flooding or other contamination during construction or due to the ongoing site activity.

Engineering plans for cross-water flow (specifically from the eastern side of Silkwood Rd via the under-road culvert and from drainage lines under solar arrays) do not demonstrate sufficient research or understanding of rainfall intensity, water flow or flood events in the specific lease area and surrounds.

An erosion and sediment control plan has not been provided, making it impossible to assess this PO.

PO6 – AO6.1 - The 'alternative' is Solar panels and they are reflective. This PO is not met.

AO6.2 - There is no report or independent assessment of noise – merely assertions or undertakings - It must be a condition of any approval that noise measurements are undertaken and reported.

PO9 – AO9.3 This is not met as the developer intends to remove existing trees.

AO9.4 - The on-site impacts on natural flow regimes and erosion and sedimentation are inadequately assessed or addressed and appear to be insufficient to avoid flooding and erosion of the site and subsequent discharge of sediment and potentially contaminated water into Buchanan Creek (as in PO4/PO5). There is no proposed revegetation of exposed areas shown on the plans, essential in protecting the environmental qualities of the site and Buchanan Creek. An erosion and sediment control plan has not been provided, making it impossible to assess this PO.

Precinct 5 - Low Impact Rural Production and Tourism Enterprise

PO26 -This PO is not met as the developer will only revegetate where there is no shading impact on solar panels and has no intention to landscape.

PO27 - Sufficient information to ensure the protection of environmental and scenic values has not been provided.

- Strategies to minimise dust, noise, social disruption, vibration and traffic management are inadequate and will not alleviate impact on Silkwood Road residents and guests of local accommodation businesses
- Strategies to address erosion and sedimentation, fire management, land contamination, flora and fauna, rehabilitation, water quality, weed and pest management are not sufficiently identified to ensure no impact on the lease area and surrounds ecological and heritage values.

In addition there is no Site rehabilitation plan.

Overlay Codes

Bushfire Hazard Overlay Code

The site is not identified as within a bushfire risk sub category, however, the development fits within the description of a 'vulnerable activity' and bushfire risk must be present and would have catastrophic effect. Have the overlay maps been updated for potential climate change impacts? World heritage Queensland rainforest burned for 10 days – and almost no one noticed | Bushfires | The Guardian

Landscape values overlay code

PO1 –

AO1.3 -The applicant has put forward to utilise and 'thicken' existing roadside vegetation – this is unacceptable. Vegetation cannot be relied upon in the first instance nor in perpetuity to maintain a visual break (the nature of vegetation being that it takes years to establish and achieve the screening effect the applicant is relying on and that it is subject to disease, damage and decay). Furthermore, it is particularly concerning that screening is proposed only on the nature strip, over which I believe there is no means to enforce the applicant to maintain the health, number or visual effect of the trees. There is no effort to account for screening on the subject land, vegetation or otherwise. Furthermore, access gates and driveways will create a huge break in any vegetation buffer and, given the commercial nature of the development, represent a much larger visual impact incongruent with the current farmland use of the lease area. It should be a condition of any approval to provide appropriate screening.

AO1.5 - 90% of the proposed site includes reflective surfaces, contradicting the standard – does not comply

Natural areas overlay code

PO1 -The developer has not provided any reports by a qualified person as to mitigation of impacts. The Appendix D Technical descriptions document does not satisfy the description of requisite report in AO2 or AO3, relevant reports should be attached, rather than summaries of alleged surveys and reports. In the absence of these reports the Council should secure independent reports. Insufficient information to assess.

PO2 - AO2

Insufficient information to address hydrology and drainage and the site will be surrounded by a 2 m fence – this does not allow for safe movement of fauna. – Not met

PO6 - There is insufficient information provided in the DA to assess – there is no ecological survey provided, merely assertions by the developer.

Use Codes

Industry activities code

PO4 - The developer does not propose to landscape within the development site. Clearly the PO requires landscaping.

Environmental performance code

PO1 - Technical parameters, design, installation, operation and maintenance of outdoor lighting must comply with the requirements of Australian standard AS4282-1997 Control of the obtrusive effects of outdoor lighting. This should be a condition of any approval

PO2 – Developer has not provided proof of compliance – should provide a noise assessment by an appropriately qualified person as a condition of approval

PO3 - The EMP is insufficient. Does not provide for emissions from weed and pest management or potentially from solar panels.

PO7- The EMP is insufficient in dealing with these matters. The design does not demonstrate adequate consideration of a comprehensive drainage survey for the site during flood events needs to be undertaken to ensure any engineering works take appropriate account of this drainage line. Engineering plans for cross-water flow (specifically from the eastern side of Silkwood Rd via the under-road culvert and from drainage lines under solar arrays) do not demonstrate sufficient research or understanding of rainfall intensity, water flow or flood events in the specific lease area and surrounds.

PO8 – there has been no declaration from an appropriately qualified person.

Filling and excavation code

PO3 and PO4 -

Filling and excavation does not result in a reduction of the water quality of receiving waters.

It is not clear that the engineering plans have adequately assessed the impact on Buchanan Creek. An engineering study is required

Infrastructure works code

PO3 - The response of the developer does not comply with the PO.

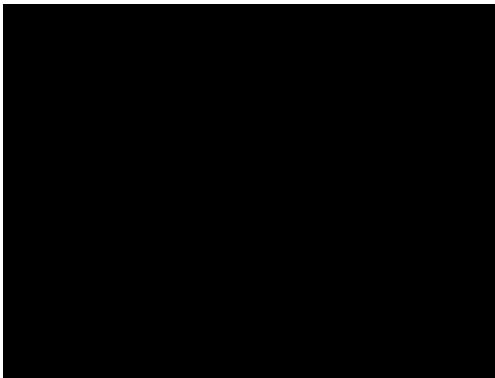
PO9 - The developer does not intend to screen from view by landscaping – but has suggested planting on road reserve outside the project area. – PO not met.

Deficiencies and conditions

Crucial deficiencies exist in the DA regarding environmental impact assessment and community consultation to justify the basis for the proposed development. As part of this objection, I request the following actions to be taken by the applicant in order to adequately address the specific needs of the Daintree Coastal community:

- Social research to justify the intervention proposed by the DA on Daintree residents and small businesses
- Evidence that recent documented, qualitative community consultations undertaken with a range of households in the Daintree area align with the proposed model and anticipated outcomes of the project
- Evidence of more substantial impact assessments according to applicable area overlays including:
 - Vegetation
 - Fauna
 - Drainage/irrigation
 - Chemical use in site maintenance
 - Parking and transport
 - Earthworks as part of construction
- An Environmental Management Plan which addresses not only the construction phase of the proposed development but also the ongoing operations of the solar farm/ energy utility and the potential short-term, mid-term and long-term impacts on the ecology of the Conservation Zone AND adjacent landholders and businesses.
- Evidence that the project proposal is the best choice of options evaluated in the most recent study into electricity provision for the Conservation zone of the DSC Planning Scheme (i.e. the 2019 KPMG Daintree Electricity Supply Study prepared for the Queensland Department of Natural Resources, Mines and Energy).

Yours sincerely



Attachment A

DISTRIBUTION CABLING

This project includes electrical distribution will be via underground cabling in conduits with approximately 68.9km of cables within 56km of road reserve (there will be doubling up of cables in some trenches/conduits) with 27 transformer kiosks and junction boxes/switchgear to be installed. Distribution will extend to all 32 road reserves between and including Cow Bay to Cape Tribulation.

DSSG understands that the operational works within the local government road network (Zone C of the Wet Tropics World Heritage Area) are not part of this Development Application, and will be addressed through a Prescribed Activities Permit application with Douglas Shire Council.

Does this permit arrangement allow for public input? This is a controversial project which will cause significant disruption to residents and visitors to the Daintree Coast – public input to any permit and planning seems to be necessary.

DSSG is concerned about the level of supervision of compliance with the proposed work in the road reserves and particularly with waterway crossings and work in sensitive areas.

We note the SARA referral response says

“Based on the revised pre-lodgement material provided, the proposed development of the electricity distribution network will require referral to SARA under the following provision of the Planning Regulation 2017 (Planning Regulation):

Schedule 10, Part 17, Division 3, Table 1 – Operational work that is tidal works and work in a coastal management district. This will require a fee of \$3,516 (fee item 8(e)).

SARA would be a referral agency and Douglas Shire Council the assessment manager for prescribed tidal works’

Expressing concern at impact on marine plants, the SARA report says”

“However, if it is not possible to locate the cable under the traffic lanes near the Cooper Creek estuary and the cable is located in the outer road reserve, marine plants are likely to be impacted as a result of the works. As identified in the pre-lodgement advice issued on 12 September 2022, the works may be undertaken in accordance with work types 2.15 and 2.24 of the ADR provided the maximum disturbance footprint is 25m² or if the works cannot comply with the ADR, a Development Application will be required.

DSSG is concerned to understand whether the distribution project will be referred as a Development Application and when this will be known, allowing public input.

We are advised that optic fibre cables may be installed at the same time – presumably by arrangement with Telstra – is this the case and was this aspect advised to the Queensland Government via SARA referral?

Costs to Douglas Shire Council

There has been significant support provided to this developer by DSC, and more resource will be required if the project proceeds. As ratepayers, members of DSSG are concerned that these costs are captured and reported specifically for public scrutiny.

We would like to understand the precise terms of the usage of the road reserve and other land for this installation. Who ‘owns’ the reserve and the land on which transformers and kiosks will be installed, and is a lease arrangement in place? How much will the developer pay to use this land?

Kiosks and Transformer boxes

We understand that kiosks and transformers will be set back from the road reserve. On whose land will they be placed? We believe the placement of these structures will impede slashing of the road sides, requiring more Council resources to undertake maintenance.

Most network companies have a published set of standards for placement of kiosks and transformers – see below.

Site Requirements 2.1 General 2.1.1 Kiosk substations shall be located in areas that are well drained (no ponding) and are clear of underground or overhead obstructions as required by Clause 2.2 and Section 5. 2.1.2 To minimise soil erosion effects and long-term movement of the kiosk assembly, the kiosk site area (refer to Annexure A) shall be level, or made level using suitable retaining structures. 2.1.3 Kiosk substation sites shall comply with the environmental and fire segregation requirements specified in Sections 9 and 11. 2.1.4 All kiosk substation sites shall comply with the Standards Australia Handbook SAA HB 100 (CJC 4) Co-ordination of Power and Telecommunications. 2.2 Site limitations 2.2.1 Kiosk substations shall not be installed in the following areas, unless Ausgrid determines that there is no reasonable alternative: • areas prone to stormwater run-off or ponding; • areas subject to declared 1 in 100 year floods; • areas less than one metre above the mean high water mark; • ocean-front areas where storm wave erosion could affect the site, or where storm wave conditions could cause access difficulties; • exposed ocean-front locations subject to salt laden winds or coastal environments which demonstrate accelerated corrosion to existing infrastructure; • locations defined as coastal vulnerability areas; • unstable areas; and • roadway restriction areas including kerb blisters or similar traffic control narrowing.

shall not obstruct a road user's view of traffic at crests, curves, roundabouts or other locations, where a traffic accident could reasonably be attributed to loss of view caused by the kiosk; • shall not obstruct a road user's view of traffic when the road user is about to enter the carriageway of a road from a driveway; • shall not be vulnerable to damage by reasonably expected traffic movements;

Site Selection and Preparation for Kiosk Substations (ausgrid.com.au)

What standards will apply for this project?

Premises Lead in

We note that the 9.4.5 Infrastructure works code at AO8.2 requires "The premises is connected to the electricity distribution network in accordance with the Design Guidelines set out in Section D8 of the Planning scheme policy SC5 – FNQROC Regional Development Manual. Note - Areas north of the Daintree River have a different standard."

Can you advise what standard will apply and confirm it is at least equal in safety and preservation of environment as applies elsewhere?

[REDACTED]

Attn: Ms. Rebecca Trantino - Assessment Manager, Douglas Shire Council

Re: CA 2023_5496 - Objection to planning application for 174 Buchanan Creek Drive, Cow Bay.

Dear Ms. Trantino,

[REDACTED] (the businesses) opposite the
[REDACTED]
development proposed for 174 Buchanan Creek Drive, Cow Bay, by [REDACTED]

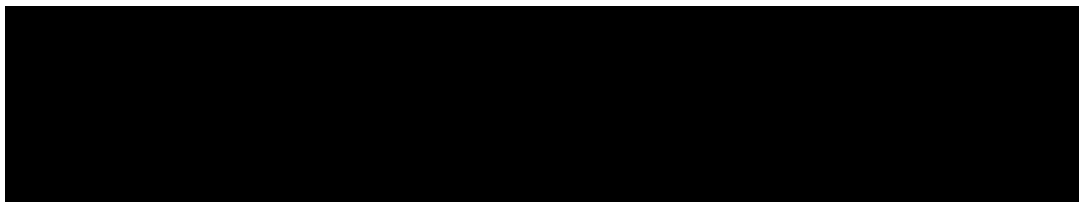
The comprehensive grounds for my objection are detailed in the document below, based on contradictions posed by the DA to the following regional planning frameworks, codes and local overlays specific to the Daintree Rainforest Conservation Zone. The main substance of my objection is that the proposed Daintree micro-grid development (DMG):

- will inevitably facilitate and encourage further development in the Conservation zone
- is not consistent with broader sustainability outcomes
- has not been justified in being an essential community infrastructure/ need
- does not have sufficient information regarding project viability and is based on inadequate research and outdated data
- is likely to significantly impact local ecology and biodiversity both through stimulating a larger development footprint and intensity AND directly on the site and its surrounds
- poses significant detrimental visual impact that cannot be appropriately mitigated
- will result in noise and disturbance both during construction and ongoing site operations
- has not adequately demonstrated appropriate drainage, across ground, flood mitigation or erosion control management
- has not demonstrated an acceptable response to fire and chemical hazard risks posed by a high voltage system with hydrogen and LPG storage
- contains inconsistencies, errors and omissions such that a proper assessment cannot be undertaken, including with regards to the safety of project operations

These objections are strongly tied to the requirements of the applicable State and Local Planning policies, strategic frameworks and codes, and I submit that the proposal:

- does not comply with and is contrary to the intent, purpose and requirements of the Conservation Zone of the DSC Planning Scheme
- is not consistent with the Cape Tribulation and Daintree Coast Local Plan, including the purpose and requirements of Precinct 5 (Low impact rural production and tourism enterprise) and relevant overlays
- is not consistent with the Douglas Shire Council Strategic Framework and broader sustainable development vision;
- Is not consistent with the broader intent of the Queensland Planning Act from which the planning scheme derives;
- is inequitable to members of the local community and unsustainable in both design and responsiveness to local energy needs;
- has been developed without adequate survey data, appropriate consideration of alternative proposals or legitimate community-wide consultation.

The submission I have prepared to substantiate these objections comprises, in the first place, a detailed summary of the terms of my objection with reference to the relevant planning documentation. The specific details of my objection with regard to the codes and local plans are included as appendices to this document.



Application No.	Details
CA 2023_5496	Property Address: CA 2023_5496 - 174 Buchanan Creek Road COW BAY Applicant Name & Address: Volt Advisory Group Pty Ltd, Lvl 7, 757 Ann Street, FORTITUDE VALLEY QLD 4006 Proposed Development: Combined Application (MCUI, ROL 1 Lot into 2 Lots & OP Works)

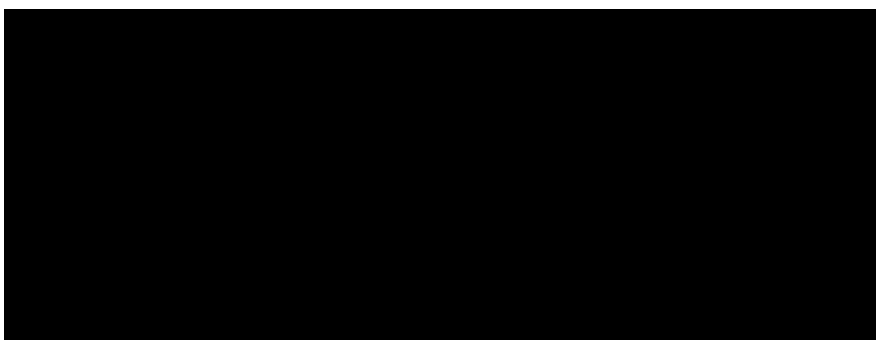


Table of Contents

	Page
1. Introduction and submission context	3
2. Summary of DA	5
3. Summary of Objections	6
4. Conclusions	8
Appendix 1 - Details of objections	9
Appendix 2 - Inconsistencies with overlay codes	34
Appendix 3 - Incompatibility with QLD Planning Act 2016	36
Appendix 4 - Contradictions with DSC Strategic Framework	39
Appendix 5 - Inadequacies of current DA - Additional requirements for future proposals	40

1. Introduction and submission context

My key objection to this DA is in relation to the proposed Material Change Of Use, which requires both Impact Assessment and Code Assessment. I am specifically concerned about the construction and operation of an 8 MW electrical generation (solar) station which will comprise a solar farm, battery storage, emergency generator backup, containerised electrical switchgear and a containerised hydrogen electrolyser and fuel cell on the project site.

While it is not a current part of this DA, I am additionally concerned about the electrical distribution aspects of this proposed development upon which this proposal depends. Traversing 56 km of road way or road reserve via underground cabling in conduits with approximately 68.9km of cables, 27 transformer kiosks and the installation of requisite junction boxes and switchgear. This proposal impacts all 32 road reserves between and including Cow Bay to Cape Tribulation.

The Daintree area is an internationally-recognised, highly significant ecological area, hence its listing as a World Heritage Site. All development which occurs within this area has the potential to degrade and threaten these ecological values and in recognition of this, Douglas Shire Council has developed a number of planning frameworks and documents to manage and direct development (Conservation Zone/ Cape Tribulation and Daintree Coast local plan code and various overlays).

At every level within DSC planning guidelines (Planning Scheme, Strategic Framework/ Overlays/ Codes/ Local plans) the potential for development to threaten the ecological values, biodiversity and unique tourism potential of the Daintree (and the Conservation zone) is recognised. It is also recognised that any single development which encourages a further development footprint or intensity has a significant potential to threaten the underlying biodiversity and ecological values of the area.

The grounds on which a Material Change Of Use can gain approval are therefore extremely limited and require the applicant to demonstrate that it meets the entire requirements of the DSC Planning Scheme including all relevant plans, codes and overlays.

Outdated, inadequate research has been used to justify the project as a whole and the model for this particular development in terms of

- justifying the proposed development as essential community infrastructure
- residential demand both re electricity volumes (Kw/h) and the means of supply
- current residential electricity production volumes and sources
- contemporary technology and alternate electricity production/supply options
- models for the extrapolation of residential electricity usage

such that the "essential" nature of this particular proposed development is highly questionable. Furthermore, the proponent has not adequately demonstrated that the particular model for this project is the best option, or that it will even meet the needs of

residents in terms of equity of supply, stakeholder involvement and public good (e.g., no feed-in potential to the micro-grid has been provided for).

In addition, the DA for this proposed development has failed to demonstrate (and in some cases has not even tried to demonstrate) that it is sustainable in terms of

- long-term demand
- the immediate supply constraints
- the potential to expand
- reliability
- the timeframe before the technology is superseded
- the cost to residents of connection, rewiring existing dwellings and the market price at which the electricity will be sold

2. Summary of DA

Development Application CA 2023_5496 -174 Buchanan Creek Rd, Cow Bay requires:	
Impact Assessment against the whole of the DSC Planning Scheme for	<ul style="list-style-type: none"> • Material Change of Use - Renewable Energy Facility and Battery Storage Facility (8MW electrical generation solar station and battery storage) and; • Reconfiguring a Lot - creating 2 lots by lease agreement for a period of more than ten (10) years - Lease area B and Lease area C
Code Assessment for	<ul style="list-style-type: none"> • Material Change of Use- Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power) • Operational Work - excavation and fill over 25m3; and; • Operational Work - Work within an unconstructed local government road between Lease Area B and Lease Area C (underground cables and construction of road access driveway and drainage)

3. Summary of objections (detailed in appendices)

1. Alignment with DSC Planning Scheme, Conservation Zone Code, Cape Tribulation & Daintree Coast Local Plan Code Precinct 5 and relevant overlays

- Proposed DA is not aligned with and contradicts the stated purpose of the Queensland Planning Act 2016, the DSC Planning Scheme, Conservation Zone code 6.2.3, the CT & DC Planning code (Precinct 5) and a number of relevant overlays
- Will inevitably lead to increased and potentially unsustainable development threatening the natural biodiversity

2. Unsustainable development approach in submission

- Micro-grid model proposed in DA is likely to be superseded by changes in technology
- No mechanisms conveyed in DA to address long-term sustainability and viability of the infrastructure over the 25-year period
- Micro-grid system poses a high risk as a business model
- Inequitable approach taken to provision of local power supply
- Inflexible system that cannot be scaled up as needed

3. Lack of project viability based on inadequate research and outdated data

- The DA proposal contradicts the latest, most comprehensive study (KPMG Daintree Electricity Supply 2019)
- The DA references the 2016 Compass Report (Daintree Cape Tribulation Electricity Survey) as a justification for the project model. This survey used inadequate and flawed data sets AND misrepresented survey outcomes
- Utilised outcomes from the 2018 Sunverge "Powering Daintree" Report which used inadequate and flawed data sets

4. Impact on ecology and biodiversity

- The increased development in the conservation Zone likely to result from the proposed intervention will undermine the intent of the Zone, creating a precedent for further unsustainable developments
- The proposed micro-grid will provide a stimulus for energy demand in the Conservation Zone and become a catalyst for further expansion to the solar production infrastructure increasing the threat to inherent conservation and ecological values
- The increased development in the Conservation Zone resulting from the proposed development will further alienate existing habitat, transport corridors and highly localised flora and fauna undermining the regions ecological values and biodiversity
- Fencing of the proposed project site will prevent movement of fauna from the adjacent National Park to other areas of the park and to adjacent roadside verges and transport corridors
- Endemic local fauna such as tree kangaroos, dingoes, reptiles, ground birds and cassowary that are regularly sighted on Silkwood Rd will be impacted by the development activity

5. Visual and amenity impacts (Conservation Zone and Cape Tribulation & Daintree Coast Local Plan)

- High visual impact on residents and visitors to Silkwood Road businesses
- Inadequate provision for immediate and long-term screening, including screening from the gateway
- 1.8m - 2m high security fence of the whole lease area is not noted as a visual impact in the DA; no adequate provision has been made to assess visual impact of this structure or to address adequate screening
- "Lake Effect" - risk to endemic birds of the Conservation Zone to be impacted by glare during flyover
- Light pollution due to security lights at night-time will impact nocturnal wildlife

6. Noise and disturbance posed by construction and ongoing site operations

- Residents and visitors to 2 accommodation residences on Silkwood Road will be impacted during construction by:
 - Transport noises from trucks and vehicles transporting materials and infrastructure to the site
 - Use of tools, on-site generators and power tools
 - Dust from earthworks and construction activities
 - Traffic movements of heavy machinery accessing and operating on the development site
 - General traffic management on Silkwood Road during construction period
- Residents and visitors to 2 accommodation residences on Silkwood Road will be impacted during ongoing operation of the proposed development by noise pollution from general site operations, the use of backup generators during emergency outages and brushcutters/ tractor slashers which are designated for site maintenance

7. Fire and chemical hazard risks posed by high voltage system with hydrogen and LPG storage

- The proposed infrastructure/ technology (both battery and hydrogen as well as LPG storage) poses an unacceptable risk in relation to fire and lightning strikes which are common in tropical areas
- Insufficient risk assessment and mitigation measures by applicant and lack of a fire safety and evacuation plan for nearby residents
- Insufficient HAZMAT Plan in DA by applicant, given the nature and complexity of the proposed development
- Risks posed by limited road access and exit for workers and guests of nearby accommodation providers in case of gas explosion and/or fire
- Chemical pollution which may result from weed control and insect management is likely to impact the lease area and neighbouring properties and has not been referenced or adequately assessed in the DA

4. Conclusions

I therefore submit that there are so many areas in which this DA is deficient for such a major project, is not aligned with, contrary to, or undermines the intent and purpose of State and Local planning frameworks, Planning Schemes, planning codes and overlays that it should be refused.

Further, if a future application was to be presented, it would need to incorporate significant changes and substantial research to support the proposed development and to address specific concerns related to:

- Biodiversity and conservation impact
- Future development impact
- Sustainability
- Visual amenity
- Noise
- Ongoing environmental management planning
- Drainage design
- Fire/bushfire/explosion risk
- Fauna impact

Please see Appendix 5 for further details.

Appendices

Appendix 1 - Further information regarding specific objections

1. Alignment with framework, DSC Planning Scheme, Conservation Zone Code, Cape Tribulation & Daintree Coast local plan, Precinct 5 and relevant overlays

The proposed DA

- is not aligned with and contradicts the stated purpose of the Queensland Planning Act 2016, the DSC Planning Scheme, Conservation Zone code 6.2.3, the CT & DC Planning code (Precinct 5) and a number of relevant overlays
- will inevitably lead to increased and potentially unsustainable development in the area, threatening the natural biodiversity

A. Conservation Zone Code (5.6C)

The proposed DA is not aligned with the stated purpose of the Conservation Zone code (6.2.3):

- (1) *The purpose of the Conservation zone code is to provide for the protection, restoration and management of areas identified as supporting significant biological diversity and ecological integrity.*
- (2) *The local government purpose of the code is to:*
 - (a) *implement the policy direction set in the Strategic Framework*
 - (b) *conserve and maintain the integrity of biodiversity values, wildlife, habitats and other significant ecological assets and processes over time, across public and private lands.*

The Proposed DA is likely to significantly impact biological diversity and ecological integrity (wildlife, habitats, other significant ecological assets) of the zone by

- Facilitating and encouraging further residential development and current development intensity
- Facilitating and encouraging further SME and commercial development and current development intensity
- Facilitating and encouraging increased visitor numbers (both daytrippers and overnight stays)

This is further detailed in Appendix 4.

The proposed DA is inconsistent with a number of the desired outcomes of the code:

- (3) *The purpose of the code will be achieved through the following overall outcomes:*
 - (a) *Biological diversity, ecological integrity and scenic amenity are protected;*
 - (b) *Any recreational or other uses of areas that are in the control of the Crown, or the Council, such as reserves, national parks and the Wet Tropics World Heritage Area or areas adjacent to these areas, are consistent with the management plans of the controlling authority so that conservation and scenic values of these areas are not adversely affected;*
 - (c) *Any use of land in private ownership does not affect the environmental, habitat, conservation or scenic values of that land or surrounding area;*
 - (d) *Any low intensity facilities based on the appreciation of the natural environment or nature based recreation only establish where there is a demonstrated need and provided they have a minimal impact on the environmental and scenic amenity values of the site or surrounding area.*
 - (e) *The provisions of the Return to Country Local Plan facilitate economic and social opportunities on traditional Indigenous lands;*
 - (f) *Further lot reconfigurations other than amalgamations, boundary realignments to resolve encroachments, or for the practical needs of essential community infrastructure, or to facilitate Return to Country outcomes do not occur.*

The proposed DA

- makes minimal and insufficient provision to protect scenic amenity
- threatens the biological diversity and ecological integrity of immediate surrounds and the zone as a whole
- affects the environmental, habitat, conservation and scenic values of both the proposed lease site and surrounding area
- is not for a low intensity facility
- has not sufficiently demonstrated a need and or provided sufficient evidence that it will have a minimal impact on the environmental and scenic amenity values of the site or surrounding area
- has not provided evidence that the DMG is essential community infrastructure as required for lot reconfigurations - 'essential community infrastructure'.
- does not demonstrate that it is self-contained through the use of appropriate on-site or nearby rainwater collection and storage, sewerage treatment and electricity generation

With regard to the above points, matters regarding scenic amenity and ecological/biodiversity impacts are detailed further in this objection.

In addition, the DA specifically contravenes many Performance Outcomes identified in Table 6.2.3.3.a - Conservation zone – assessable development. The proposal does not meet the performance outcomes, as described in the below table:

Performance outcomes of the Conservation Zone	
PO1	The DA is for a Material Change of Use- Renewable Energy Facility and Battery Storage Facility, and for Material Change of Use- Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power). The proposal is <i>inconsistent</i> with the outcomes sought for the Conservation zone and <i>does not</i> protect the zone from the intrusion of inconsistent uses. A utility installation is an inconsistent use, as listed in 6.2.3.3b, and is not an acceptable outcome with regard to the Conservation Zone.
PO3:	Though not specified explicitly in the DA, it appears from the scale drawings of the site plan that solar arrays which can be considered to be 'structures' will be installed less than 20m from the lease boundary along Silkwood Road and likely within 5m or 8m. As adequate screening cannot be provided in the short or medium term (for up to 10 years) through the DA's proposal to limit screening to vegetation 'thickening' of the existing roadside reserve, the development will be easily visible during construction and for many years of initial operation from Silkwood road users. This makes the DA non-compliant with PO3 and constitutes a significant compromise to the scenic values of the area. While the height of the solar panels is less than that of a dwelling or typical building, and the applicant may seek to vary the requirement on this basis, due to the scale of the proposal the visual impact will be significant, and no variation to the 20m setback requirement should be allowable.
PO4:	While the development is proposed for an already (largely) cleared area (AO4) it clearly does NOT meet the outcomes described in PO4. Currently the scenic values of the project site are high constituting an idyllic farm view, with remnant vegetation/tall trees, pioneer rural ploughs and tranquil cattle grazing. Many guests to the Epiphyte B & B and Hibiscus Cottage (Overnight Stays) photograph this view from a viewpoint on Silkwood road especially at sunset. The proposed site coverage of buildings, structures and security fencing will certainly have a significant adverse effect on the scenic amenity values.
PO5:	The proposed development is NOT consistent with the overall outcomes sought for the Conservation Zone as identified above.
PO6:	The proposed development clearly does NOT complement and is not subservient to the surrounding environment nor is it in keeping with the ecological, landscape and scenic values of the area. It is clearly impossible to install solar panels which are non-reflective and blend easily with surrounding native vegetation and viewshed (AO6).
PO7:	The proposed DA does NOT adequately screen the development from view from the adjoining road (Silkwood Road) with a dense screen of endemic/native landscape which is

	<p>a) informal in character and complementary to the existing natural environment; (b) provides screening; (c) enhances the visual appearance of the development</p> <p>It also does NOT provide for the balance area of the site not built upon, including all setback areas to be landscaped/revegetated with dense three tier, endemic planting which is maintained to ensure successful screening is achieved. Furthermore, due to the proposed subdivision by lease agreement, the 'balance' of site area able to be revegetated is significantly limited, particularly if the development must also account for bushfire management, including cleared buffer areas. It has not been demonstrated that an appropriate balance between development and natural environment can be struck. -</p> <p>I have met with, inspected the site and discussed with the nominated commercial contractor the likely timeframes and outcomes of the proposed 'thickening' of existing vegetation on the Silkwood Road roadside verge in terms of providing an adequate screening buffer. It is apparent that it would take at least 6-10 years for screening limited to the roadside verge to screen visibility of the site from Silkwood Road traffic and pedestrians.</p> <p>To effectively screen the site during construction and for the first 6-10 years of operations it would be necessary to provide a second layer of bushy low vegetation screening inside the lease area (e.g. inset 3m-5m from the current lease boundary where in full sun it would grow quickly and easily. This should be provided in addition to the three tier endemic planting required under PO7.</p>
PO8:	<p>The development can in no way be considered 'complementary' to the surrounding environment and requires significant earthworks to site buildings, drainage lines and roadways. While the proponent asserts no terracing will be required for the installation of solar arrays it is not clear how this could be the case on the large unevenly sloping lease site.</p> <p>A08.2 While the proponent asserts no driveways or parking are required to be constructed it is clear a significant roadway capable of handling heavy vehicles during the construction phase of the project and parking for ongoing project workers and maintenance crew will definitely be required.</p> <p>A0-8.3 A geotechnical report has not been provided assessing the impact of development on any land with a gradient greater than 1:6.</p>
PO9:	<p>The development does not protect the ecological values of either the site or especially the surrounding land, does not adequately protect the scenic values of the area, does not provide sufficient setbacks from overland flow paths (see notes below on drainage patterns within the project site) and does not adequately minimise visibility from external sites or public viewing points on Silkwood Road.</p> <p>NOTE: Visitors to Crocodylus Village hostel (700m away), Hibiscus Cottage and Epiphyte B & B (both opposite the site) routinely traverse Silkwood Road on foot especially at sunset to enjoy and photograph the views across the current farm - the proposed project site. See attached photos.</p>

PO10

PO 10: There is a significant risk that the proposed development will result in adverse impacts:

(a) on ecological function or features especially at a larger scale in terms of spurring development within the entire Conservation Zone but also more locally as identified above with local fauna. There is also a significant risk during construction from noise, dust, chemical spill, general activity of a detrimental affect on ecological function and more particularly during ongoing operations of fire, explosion, chemical spills etc.

Buchanan Creek is a significant adjacent waterway and it is not clear from the project documentation that there is adequate protection from polluted or contaminated water, erosion from project-created flooding and drainage surcharge routes or other significant polluting events.

(b) as described in PO9 the development will not maintain the scenic values of the area

(c) It has not been demonstrated that appropriate setbacks to Buchanan Creek have been provided (see also comments regarding impacts to Buchanan Creek)

(e) while the application documents note that site excavation is 'minimised', there is still great concern with regard to potential impacts from excavation, particularly on drainage patterns and impacts to Buchanan Creek.

(f) appropriate buffers to Buchanan Creek has not been provided

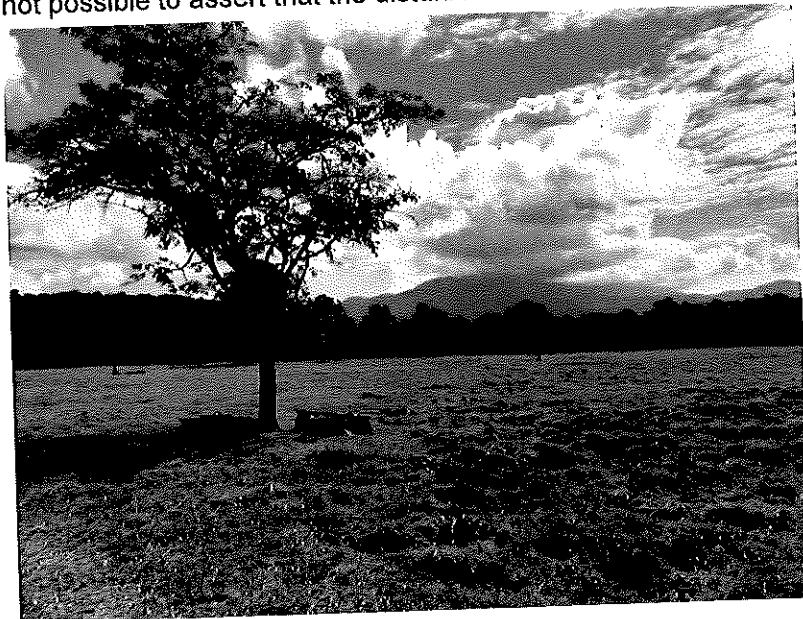
(g) visibility of the development to external sites is NOT minimised (residencies, Silkwood Road which is also a common viewing point as described in PO9).


Sufficient screening has not been provided, with no provision for on-site screening measures.

(h) Detail of vegetation as seen in aerial imagery has not been provided.

Scattered trees can provide areas for roosting and foraging and impact fauna habitat as well as landscape quality.

While vegetation and fauna habitat may be only minimally affected on the actual project site, the development will certainly act to 'alienate' habitat for wildlife in the adjoining areas of National Park and the roadside verge. These areas are both home to Bennets Tree Kangaroo, Cassowary, Dingo, Paddymelon and numerous reptiles and birds. Without a significant study - which has not been undertaken - it is not possible to assert that the disturbance will not be significant.



	<p>View across the proposed development area from viewing point on Silkwood Road.</p>  <p>Bennett's Tree Kangaroo (near threatened endemic species) sighted at top of proposed development area on the roadside verge.</p>
PO11	<p>Site area will be disturbed as part of the construction of development. No rehabilitation has been proposed. This would be essential in maintaining (and improving) the environmental integrity of the area. This is of particular importance due to the proximity to Buchanan Creek, and potential for contamination, erosion and other environmental impacts from drainage, construction and ongoing management processes (as also described above)</p>
PO12	<p>PO 12: It is clear the proposed fencing (which is mandatory for such a development) will certainly impede the free movement of native fauna through the site. This includes dingo, cassowary and reptiles all of which are currently common and regularly seen in and adjacent to the proposed project area. Proposed security lighting is also likely to be a hazard to many nocturnal animals and birds.</p>

B. Cape Tribulation and Daintree Coast local plan code (7.2.1) :

The intent of this local plan is to minimise the impact of development, and ensure that development allowed within established residential areas maintain a low environmental impact. The need for the local plan was established from recognition that development associated with 'rural residential style' lots in the daintree posed a risk of significant detrimental impacts on the ecology and landscape character of the area (see 7.2.1.2 of the local plan code which covers the context of the plan in detail). Section 7.2.1.2 also acknowledges the compounding nature of further development spurring increased services and infrastructure, which in turn leads to more development pressure and associated detrimental impacts. It highlights the need for preserving the natural environment, landscape character and low-key nature of development and intrinsic attractiveness of the area.

The purpose of the Cape Tribulation and Daintree Coast local plan code clearly sets out how this intent is to be achieved (below)

7.2.1.3 Purpose

(1) The purpose of the Daintree River - Bloomfield River local plan is to retain the attraction of the area as a very low-key, largely undeveloped nature-based recreation environment, based on Douglas Shire Planning Scheme 2018 Version 1.0 Part 7: Local plans Part 7: Page 4 the exploration and appreciation of the natural environment and to ensure that any development that does occur is appropriate and does not place additional pressures on the values of area.

(2) The purpose of the code will be achieved through the following overall outcomes:

(a) areas within the local plan are appropriately managed to protect biological diversity, water catchment quality, ecological functioning, beach protection and coastal management, scenic amenity, and historical and cultural values;

(b) the natural character of the locality is protected, and where degraded, restored or enhanced;

(c) new development does not occur, with the exception of development located within, and consistent with the respective precinct intents for:

(i) Precinct 1 – Conservation precinct

(ii) Precinct 2 – Low impact residential precinct;

(iii) Precinct 3 – Low impact commercial precinct;

(iv) Precinct 4 – Low impact community purpose precinct;

(v) Precinct 5 – Low impact rural production and tourism enterprise precinct;

(vi) Precinct 6 – Low impact tourism accommodation precinct;

(d) where development occurs it is:

(i) very low scale and remains within the limits imposed by the vehicular capacity of the Daintree River ferry crossing, the Alexandra Range road crossing and the local road network;

(ii) sensitive and sympathetic to its remote location in an area of unique biodiversity, ecological, conservation and scenic amenity value;

(iii) self-contained through the use of appropriate on-site or nearby rain water collection and storage, sewerage treatment and electricity generation;

(e) adequate services and facilities for settlement areas and an appropriate level of economic opportunity for local residents are provided

Proposed DA contradicts the stated purpose and assessment criteria of the Cape Tribulation and Daintree Coast local plan code on the following basis:

- Is NOT low-key and will inevitably lead to increased development and resident population (see KPMG 2019/ Sunverge 2018) as well as enabling higher energy consumption as a result of increased availability of off-site energy supply. Clearly this is considered to be contrary to the preferred outcomes of this plan.
- Is not sensitive and sympathetic to its remote location in terms of biodiversity, ecological function, conservation and scenic amenity (see further detail regarding impacts on environmental/ecological function, Buchanan Creek, scenic amenity below)
- Will affect the natural character of the locality
- Does not attempt to restore or enhance degraded local character (where the broader local character is low-land tropical rainforest, this historically cleared site can be considered 'degraded', and any development should include restoration and enhancement of natural environment)
- Will place additional strain on the capacity of the Daintree River ferry and Silkwood Road during construction
- Is a new development and inconsistent with the respective precinct intents for Precinct 5 (see detailed assessment in section C regarding Precinct 5)

With specific regard to the assessment criteria of the Cape Tribulation & Daintree Coast local plan, the proposal fails to demonstrate an acceptable outcome (see table below)

Assessment against Cape Tribulation & Daintree Coast local plan code	
PO1	Additional strain will be placed on the capacity of the Daintree River ferry and Silkwood Road during construction, and for ongoing maintenance.
PO3	The DA does not address or make provision for sanitary services post construction and does not address wastewater or effluent processes
PO4	<p>The DA does not adequately detail strategies for the protection of natural water resources (Buchanan Creek) or remnant vegetation along the creek/lease boundary from wastewater, sedimentary inundation, chemical spills, excessive flooding or other contamination during construction or due to the ongoing site activity.</p> <p>Engineering plans for cross-water flow (specifically from the eastern side of Silkwood Rd via the under-road culvert and from drainage lines under solar arrays) do not demonstrate sufficient research or understanding of rainfall intensity, water flow or flood events in the specific lease area and surrounds.</p>
PO5	
PO6	<p>The development can in no way be characterised as subservient in scale and intensity to the surrounding natural environment, which is National Park and rural low-impact production precinct.</p> <p>The solar panels are a reflective product that will not complement the colours of surrounding vegetation and view shed. Reflection and glare will detrimentally impact residents/businesses located on Silkwood Road.</p>
PO7	Landscaping should reflect the endemic character of the local area and (as in PO26, Precinct 5), a balance of the site should be revegetated/rehabilitated HOWEVER no landscaping is proposed in the DA.
PO9	<p>The on-site impacts on natural flow regimes and erosion and sedimentation are inadequately assessed or addressed and appear to be insufficient to avoid flooding and erosion of the site and subsequent discharge of sediment and potentially contaminated water into Buchanan Creek (as in PO4/PO5).</p> <p>There is no proposed revegetation of exposed areas shown on the plans, essential in protecting the environmental qualities of the site and Buchanan Creek.</p>

The Cape Tribulation and Daintree Coast local plan, in Section 7.2.1.3, asserts that the purpose of the local plan will be achieved through:

- Appropriately managing areas to protect biological diversity, water catchment quality, ecological functioning and scenic amenity
- Where development occurs, ensuring it is:
 - Very low scale
 - Sensitive and sympathetic to its remote location [...] ecological, conservation and scenic amenity value
 - Self-contained through the use of appropriate on-site or nearby rainwater collection and storage, sewerage treatment and electricity generation

The earthworks and associated works required for the renewable energy facility and battery storage will impact the drainage pattern of the land. The plans show drainage surcharge routes within the property, feeding into the existing overflow path from Silkwood Road.

In 3.1.1 of the DA it is noted that:

A drainage plan has been identified (see Appendix E, drawing DRE-ELE-GAR-1002) that directs flow away from Buchanan Creek.

It is not clear from this plan or from a site survey how drainage can ultimately be directed away from Buchanan Ck:

- the entirety of the proposed lease areas B and C have fall and drain into Buchanan Creek.
- a significant amount of water traverses the proposed project site as an overland flow line from the National Park above the site AND from Lots 19 - 22 opposite the site (via a culvert under Silkwood Road and a roadside drain on the western side of Silkwood road). The amount of water during regular flood events in this area (3+ times/year) is such that DSC is required to repair this section of Silkwood Road from washout after each such event (please consult your engineering and maintenance sections).
- the DA for this project has specified there are no significant drainage patterns on the proposed site. This is incorrect. A comprehensive drainage survey for the site during flood events needs to be undertaken to ensure any engineering works take appropriate account of this drainage line.
- it is also not clear from the DA how rainwater will be collected from the solar array and directed to the 110,000L water storage tank. Detailed engineering documentation has not been provided to demonstrate these will also not create erosion through overflow during flood and high rainfall events and that contaminated or sediment rich water will not enter Buchanan Creek due to this intervention.
- an erosion and vegetation management plan specific to this flow line and the entire site needs to be provided to ensure Buchanan Creek is not compromised by this development on its immediate eastern boundary.

While the DA notes: *"The DMG project EMP will be updated to include the Erosion and Sediment Control Plan (ESCP) which will be prepared by the construction contractor and approved by the relevant Regulators (e.g. DSC, WTMA) prior to construction"* this appears to have not yet been provided.

- Therefore, it is not possible for DSC planning staff or others to adequately assess whether the DA meets the requirements of
 - PO9 and PO10 of the Conservation Code (6.2.3) or;
 - PO4, PO5 and PO9 of the Cape Tribulation and Daintree Coast local plan code (7.2.1.2)

C. Cape Tribulation and Daintree Coast local plan code: Precinct 5

The Cape Tribulation and Daintree Coast local plan sets out that new development does not occur, except development located within, and consistent with the relevant precinct intents. The proposed development is located within 7.2.1.8 Precinct 5 - Low impact rural production and tourist enterprise precinct

(1) The purpose of Precinct 5 as detailed on the Local Plan maps contained in Schedule 2 is to recognise existing rural areas and permit their continued use, while encouraging low-impact tourism enterprise including bed and breakfast, short term accommodation (being farm stay accommodation) and nature based tourism (being forest stay accommodation) as an alternative land use, where significant restoration and/or rehabilitation measures are undertaken as an incentive.

(2) The overall outcomes sought for Precinct 5 are to:

- (a) provide for continued rural production activities where lawfully established and to permit low-key ancillary tourism enterprise such as farm attractions, roadside stalls in appropriate locations;
- (b) provide for other tourism enterprise in the form of bed and breakfast, farm stay accommodation or forest stay accommodation as an alternative land use to primary production, where significant rehabilitation of habitat is achieved.
- (c) facilitate other existing tourism enterprises based on the appreciation of the natural environment.
- (d) ensure development, including waste treatment is limited to existing cleared areas;
- (e) development, including primary production, is carried out in accordance with an Environmental Management Plan.

The proposed DA

- Is inconsistent with the intent to provide for retention of low impact rural production and to enable low impact tourism.
- The reference in (d) to ensure that any rural or low impact tourism development does not involve clearing existing vegetation is NOT designed to enable alternate land uses (other than tourism enterprise) or significant development on previously cleared areas.

The proposal spectacularly fails to meet the additional requirements of Precinct 5 - low impact production and tourist enterprise precinct, as demonstrated in the table below:

Additional requirements of Precinct 5:	
PO25	The proposed development does not complement, protect or enhance the environmental and scenic values of the site (no on-site rehabilitation of natural environment proposed, detrimental visual impacts will occur to residencies./businesses/road-users of Silkwood Road, insufficient information on the environmental impacts on Buchanan Creek/vegetation adjacent, significant impact on natural values of the surrounding area)
PO26	The proposal does not include revegetation or rehabilitation of large cleared sites, and is NOT a suitably <i>small scale</i> development. The site context (being a small site with limited space to construct solar panels within), does not allow for any meaningful 'balance area' of development to be revegetated/rehabilitated.
PO27	<p>Sufficient information to ensure the protection of environmental and scenic values has not been provided (several examples of this have been provided already in this objection. Refer Conservation Zone, and Scenic Amenity Impacts)</p> <p>The Queensland Government Guideline - <i>Preparing Environmental Management Plans</i> outlines likely environmental elements that should be addressed in an EMP. Relevant environmental elements to the Daintree Microgrid Project as identified in the QLD Guideline are summarised in the project DA and proposed strategies detailed in an EMP.</p> <p>The Environmental Management Plan submitted is insufficient in a number of respects:</p> <ul style="list-style-type: none"> • Strategies to minimise dust, noise, social disruption, vibration and traffic management are inadequate and will not alleviate impact on Silkwood Road residents and guests of local accommodation businesses • Strategies to address erosion and sedimentation, fire management, land contamination, flora and fauna, rehabilitation, water quality, weed and pest management are not sufficiently identified to ensure no impact on the lease area and surrounds ecological and heritage values.

2. Unsustainable development approach in submission

The Queensland Planning Act 2016 and the Douglas Shire Council Strategic Framework (further detailed in Appendix 3 and 4, respectively) highlight that in relation to decision making processes for development, there is a need to consider the broader sustainability of a proposal, including both short and long-term environmental effects, matters of equity between present and future generations, and to promote sustainable use of renewable and non-renewable natural resources.

- The Micro-grid model proposed in DA is likely to be rapidly superseded by currently evolving changes in technology which include solar panel efficiency and cost, domestic battery storage efficiency and cost, smart metering and energy-efficient appliances.
While the rest of the country is moving towards a 'Distributed Electricity' model where consumers produce their own energy through rooftop solar and feed in to the grid using the grid as a Virtual Battery (ref SA Virtual Battery) gaining credits to cross-subsidise or negate nighttime energy consumption, this project proposes to effectively replace individual stand-alone energy systems and replace them with a centralised production and distribution network. Additionally, while other grids around the country enable users to feed-in (as above), this proposal has no mechanism or capacity for this and the lack of reference to this deficiency (in a 400+ page DA) is notable!
- There is no detail in DA which addresses the long-term sustainability of the microgrid model either financial or in terms of longevity of the various components (e.g. hydrogen storage tanks and other infrastructure) over the 25-year period inferred for the development. Interestingly, the initial lease is only for a 10 year period which would not come close to providing a sufficient pay back period for the development.
- The Micro-grid system poses a high risk as a business model due to the above, potential low take-up by residents (and insufficient survey data has been gathered to estimate this), the minimal capitalisation of the proponent developer and the potential for failure (lack of reliability leading to alternate arrangements by consumer businesses and residents) of the production and distribution systems.
- An inequitable approach to electricity access for residents/consumers has been proposed in the DA whereby only existing customers (i.e. no new residents or developments) will have access to the electricity produced AND existing residents both commercial and residential will only be entitled to the amount they already produce and consume. No detail at all has been provided of estimates done to ascertain these volumes and it is inconceivable that this could be in any way realistically calculated or demonstrated.
It is certain, however, that IF the development were to gain approval and be constructed, demand would rapidly outstrip supply due to the development impetus provided, leading to

- a) System failure, brown outs and routine use of (noisier and more polluting) back-up generators (currently designated as for emergency use only) and
 - b) Lobbying for an extension to the solar farm area
 - c) Lobbying for an alternate additional solar farm probably at Cape Tribulation
- It is an inflexible system that cannot be scaled up as needed (see above) and
NOTE: the land area of the proposed development site is limited and the proposed solar farm array sizing utilises almost all of the available lease area meaning the array sizing cannot easily be increased and also that there is not the required area of land remaining to provide the vegetation and landscaping which is a usual requirement of any such new development.

Sustainable Development Assertion:

While the applicant contends that this project is essential for the sustainable development of the area, it is imperative to highlight that residents have already been successfully utilising small-scale renewable energy systems in the Conservation Zone for 20+ years and most residents now have fit for purpose, Stand alone Power Systems (SPSs). These existing systems have proven effective in promoting sustainability without the necessity for such a large-scale development. therefore, the argument for the indispensability of this proposal in promoting sustainable development is unsustainable, especially considering the risk to the local ecology and the adverse visual and other impacts it imposes on the community.

3. Lack of project viability based on inadequate research and outdated data

- The DA proposal contradicts the latest, most comprehensive study (KPMG Daintree Electricity Supply 2019: conclusions: section 11) regarding preferred model and data on costings and residential power usage.

This study surveyed and assessed 6 alternate models of electricity provision for the Daintree area (essentially for the Conservation Zone area) and determined that a Microgrid model

- a) Was too expensive to develop
- b) Was too expensive for residents to utilise
- c) Would face 'Reliability' issues
- d) Would face sustainability and longevity issues
- e) Would be superseded by alternate technology in a likely short timeframe
- f) Would likely impact significantly the region's ecological and biodiversity values
- g) Was inflexible in terms of upscaling to meet new or varying demand
- h) Did not build on current residential investment (i.e. SPSs)

They concluded SPSs (with the government providing residents with new batteries and other components) were the preferred model because

- a) It would be cheaper for both the government AND residents
- b) Residents would be stakeholders in the initiative and it would build on the existing infrastructure
- c) It would minimise likely threats to the local ecology and biodiversity
- d) It would have the flexibility to be upscaled or downscaled according to needs and changing energy use profiles
- e) It would likely be more reliable
- f) It would enable as yet undeveloped technologies to be utilised rapidly

Even this study is already outdated particularly in its assertion that due to environmental constraints (long wet seasons, shading, above average cloud cover), residents... have a heavy reliance on generators.

This contention was truer in 2019 than now, but has for quite some time been erroneous. With the huge drop in the price of solar panels, most residents now have much larger solar arrays than previously and very few non-business residences now run generators more than a few hours a week (at most) for special purposes e.g. to pump water or possibly run a dryer.

At the Epiphyte B & B, I have not needed to run a generator (though I have one) for over 3 years since upgrading my solar array to 5.5 kw and this despite running 3 fridges, multiple fans and hosting up to 8 guests at a time.

At Hibiscus Cottage there is a 5 kw solar array and despite catering for up to 4 guests at a time (usually guests unused to energy conservation requirements) I haven't ever run a generator in its 5 years of operation - in fact there IS no generator!

- The DA references the 2016 Compass Report (Daintree Cape Tribulation Electricity Survey) as a justification for the project model. This survey used inadequate and flawed data sets AND misrepresented survey outcomes in terms of likely residential uptake of a microgrid electricity supply.

This telephone survey of 100 residents did not adequately or accurately

 - a) control for resident type (e.g. big commercial premises, SMEs, domestic dwellings) in many summaries of answers despite knowing the resident type of all respondents
 - b) control for respondents answering 'Don't Know' (and there were many)
 - c) control for differences between resident type (i.e. large commercial premises or individual households/residences) when averaging out generator run time, fuel used, system size, generator size and many other elements
 - d) Extrapolate from the determined data sets
 - e) compare data sets from the survey area with those for state regional or urban areas
 - f) qualitatively categorise responses when summarising data outcomes e.g. they misrepresent the 'Willingness or likelihood to connect' (i.e. "What would be needed to convince you to connect") where an analysis of qualitative data (individual responses) indicates 66% would not connect or would only connect if it was cheaper, more affordable, subsidised whereas only 13% would connect irrespective.
- The DA utilised outcomes from the 2018 Sunverge "Powering Daintree" Report which
 - a) used inadequate and flawed data sets
 - b) utilised an inadequate model for extrapolating residential generator usage (roof size extrapolation)
 - c) was selectively based on non-representative consumers (just 4 businesses and only ONE residential dwelling)
 - d) used known Pro-power advocates and founding members of a small residents group lobbying for a microgrid as the single 'representative' residential dwelling
 - e) itself utilised the flawed data from the 2016 Compass survey re likely customer take up and preferred models of supply
- A key element of the rationale for this DA is that the proposed development will save approximately 10 million /L of diesel fuel used each year to run generators and offset 8-10,000 metric tonnes (MT) of CO₂e annually.

These figures have been extrapolated from extremely limited and flawed survey data (as above) and no substantial or accurate metered data has been sought or gained even from businesses who have reliable fuel consumption figures let alone from household residences who do not. It is essential to challenge these fuel use and CO₂e emission projections/ extrapolations if the ideal electricity provision model is to be determined. This proposed development has not adequately demonstrated it is sustainable or fit for purpose and has a high chance of business failure.

The above goes to the intent of the Queensland Planning Act 2016 and the vision of the Douglas Shire Council Strategic Framework (further detailed in Appendix 3 and 4, respectively) with regard to the 'sustainability' of proposed development.

The proposed lot reconfiguration associated with this development also becomes problematic when project viability comes into question, as the Conservation Zone includes the 'outcome' that further lot reconfigurations do not occur, except for "essential community infrastructure" (and a small number of other exceptions irrelevant to this development). The proposed development has NOT adequately demonstrated it is for 'essential community infrastructure' and there is extensive evidence to support this (see KPMG Daintree Electricity Supply 2019 and other comments above).

4. Impact on ecology and biodiversity

The DSC Strategic Framework, Conservation Zone and the Cape Tribulation and Daintree Coast local plan code all give a high level of importance to ensuring the protection of biological diversity and ecological functioning. This has been detailed in Appendix 1 (Section 1: A, B, C above) and is further detailed in Appendix 2, Appendix 3, Appendix 4 and Appendix 5 of this document (below).

- The increased development in the conservation Zone likely to result from the proposed intervention will undermine the intent of the Conservation Zone, creating a precedent for further unsustainable developments (Appendix 1/Section 1)
- The proposed micro-grid will provide a stimulus for energy demand in the Conservation Zone and become a catalyst for further expansion to the solar production infrastructure increasing the threat to inherent conservation and ecological values (Appendix 1/ Section 1)
- The increased development in the Conservation Zone resulting from the proposed development will further alienate existing habitat, transport corridors and highly localised flora and fauna undermining the regions ecological values and biodiversity (Appendix 1/ Section 1)
- Fencing of the proposed project site will prevent movement of fauna from the adjacent National Park to other areas of the park and to adjacent roadside verges and transport corridors (see Conservation Zone 6.2.3.3, PO12)
- Endemic local fauna such as tree kangaroos, dingoes, reptiles, ground birds and cassowary that are regularly sighted on Silkwood Rd will be impacted by the development activity (see Appendix 1/Section 1/ A: PO10, PO12 // B: Local plan 7.2.1.3// C: PO27)
- Impacts on Buchanan creek (and associated impacts on broader ecological functioning and water catchment quality) have been detailed previously with regard to both the Cape Tribulation and Daintree Coast local plan code (see Appendix 1/ B / PO4, PO5, PO9 and additional notes re water flow paths and drainage)

5. Visual and amenity impacts (Conservation Zone and Cape Tribulation & Daintree Coast Local Plan)

- High visual impact on residents and visitors to Silkwood Rd businesses (The Epiphyte B&B and Hibiscus Cottage) - This has been referenced in detail with regard to the Conservation Zone and the Cape Tribulation and Daintree Coast local plan code (see Section 1: A and B)
- Inadequate provision for immediate and long-term screening, including screening from the gateway (an integral outcome referenced extensively under the Conservation Zone and the Cape Tribulation and Daintree Coast local plan code) (see Section 1: A and B)
- The 1.8m - 2m high security fence of the whole lease area is not noted as a visual impact in the DA; no adequate provision has been made to assess visual impact of this structure or to address adequate screening (see Section 1: A: PO4, PO12)
- The "Lake Effect" - there is a significant risk endemic and migratory birds in the Conservation Zone will be impacted by glare from the development during flyover resulting in injury and death. This effect is where a large solar array has the appearance from the air of a lake and birds dive towards it/ into it
- Light pollution due to security lights at night-time will impact nocturnal wildlife (see Appendix 4)

Additional comment:

The proposed renewable energy facility, battery storage and associated works would pose significant visual impact on the surrounding area, particularly on the properties located on Silkwood Road, of which three are owned by myself.

The applicant has put forward to utilise and 'thicken' existing roadside vegetation – this is unacceptable. Vegetation cannot be relied upon in the first instance nor in perpetuity to maintain a visual break (the nature of vegetation being that it takes years to establish and achieve the screening effect the applicant is relying on and that it is subject to disease, damage and decay). Furthermore, it is particularly concerning that screening is proposed only on the nature strip, over which I believe there is no means to enforce the applicant to maintain the health, number or visual effect of the trees. There is no effort to account for screening on the subject land, vegetation or otherwise.

The applicant, in assessing the visual impact of the proposal to the properties along Silkwood Road, refers primarily to the glint and glare from the panels. While this IS

concerning, particularly with regard to "vegetation screening" aforementioned, there are a number of issues also not addressed:

The view of an 'industrial-scale' development (even if partially screened) to residents of Silkwood rd and visitors to the two accommodation houses on the road, will severely impact the 'Daintree Experience' for all. This will inevitably result in a diminished lifestyle experience for residents and will significantly compromise the marketing, reviews, business model and business operations of the accommodation businesses. It is (sadly) ironic that a specifically designated use within Precinct 5 (low impact tourism enterprise) could potentially be shut down by the approval of an 'inconsistent use' development which is not the preferred model for electricity supply and for which there has not been sufficient or current research to demonstrate a community need.

Furthermore, access gates and driveways will create a huge break in any vegetation buffer and, given the commercial nature of the development, represent a much larger visual impact incongruent with the current farmland use of the lease area

The 1.8 - 2 metre high security fencing is also proposed to the perimeter of the project, presumably with associated signage. This is unacceptable in the context of the residential properties opposite who will have views of this, whether through thin vegetation, or accessways.

The above issues present an unreasonable detrimental impact, which cannot be appropriately managed with the project design. To achieve appropriate visual amenity, the project size (given the constraints of this site) would have to be substantially smaller, meeting setbacks of other development in the area, which are well in excess of 60m.

The site plan at a 1:1000 scale shows solar panels set back as little as 5m from the Lease boundary at Silkwood Road. If these are accurate this represents a significant visual impact and should not be approved given the normal 20m setback for infrastructure (see references in Appendix 1/ Sections A and B)

The proposal notes that there is no native vegetation removal proposed. Aerial imagery show several scattered trees throughout the site, and the plans indicate solar panels in these locations indicating they will require removal. There is no detail on the type of trees these are – whether they are native or not. While the PA contains reference to a biological audit of the site being prepared, it is not attached so assessing the biological, ecological, and avian significance of this site audit is not possible.

6. Noise and disturbance posed by construction and ongoing site operations

- Residents and visitors to 2 accommodation residences on Silkwood Road (Epiphyte B & B and Hibiscus Cottage) will be impacted during construction by:
 - Transport noises from trucks and vehicles transporting materials and infrastructure to the site
 - Use of tools, on-site generators and power tools
 - Dust from earthworks and construction activities
 - Traffic movements of heavy machinery accessing and operating on the development site
 - General traffic management on Silkwood Road during construction period
- Residents and visitors to 2 accommodation residences on Silkwood Road will be impacted during ongoing operation of the proposed development by noise pollution from general site operations, the use of backup generators during emergency outages and brushcutters/ tractor slashers which are designated for site maintenance

(See references in Appendix 1)

7. Fire and chemical hazard risks posed by high voltage system with hydrogen and LPG storage

- The proposed infrastructure/ technology (both battery and hydrogen as well as LPG storage) poses an unacceptable risk in relation to fire and lightning strikes which are common in tropical areas. Also, no consideration appears to have been given to ongoing environmental changes due to Climate Change including increasing risk of bushfires and lightning strikes, increasing temperatures and humidity (affecting both generation and storage plant and equipment) and risk identification and mitigation in terms of resident caretakers or security personnel. This is a potentially dangerous development and to leave it unstaffed many hours of the day/night is extremely unsafe.
- Insufficient risk assessment and mitigation measures have been undertaken by the applicant and there appears to be no fire safety or evacuation plan for on-site staff or nearby residents
- The HAZMAT Plan in the DA is insubstantial and inadequate given the nature and complexity of the proposed development (see both above dot points)
- Significant risks is posed by limited road access and exit for workers and guests of nearby accommodation providers in the case of a gas explosion, fire, chemical spill or any other kind of emergency requiring evacuation
- Chemical pollution/ drift which may result from weed control and insect management is likely to impact the lease area and neighbouring properties and has not been referenced or adequately assessed in the DA

Further to this, the experimental technology proposed by hydrogen power generation poses a significant risk of fire and chemical hazard to the site area and its nearby surroundings. As a local accommodation provider, it is unfathomable to me that the applicant has not provided comprehensive and detailed HAZCHEM and Dangerous Goods assessment as part of the DA and has not considered the real threat of fire or lightning strike in the leasehold area on Silkwood Road.

Appendix 2 - Non-alignment with overlay codes

(8.2.5) Hillslopes Overlay Code

PO1: AO1.1 - The development will negatively affect the visual amenity of the hillslope area, as it is visible from Silkwood Road.

PO2: AO2.1 - The proposed development is occurring on land with a gradient in excess of 16.6%, affecting visual amenity significantly.

PO2: AO2.3C - Measures for erosion control are not specified in the application.

PO2: AO2.5 - What are the building methods that will be put into place? Engineering diagrams are insufficient to demonstrate construction modalities that will be used to minimise modification of the natural terrain.

PO2: AO2.7B.ii - Reflective surfaces are proposed on the hillslope which will be seen from Silkwood Road.

PO2: AO2.9 - The proposal does not include adequate means of screening the development from the Silkwood Road entrance.

(8.2.6) Landscape Values Overlay Code

PO1A - Visible hillslopes.

PO1B - Visible from the road for next 3 years.

PO1C - Inadequate enhancements proposed.

PO1D - The proposed development does not incorporate a scale, design, height, position on site, construction material, or external finish that is compatible with landscape values.

PO1E - Proposed site does not avoid detrimental impact in regards to the design, layout etc.

PO1F - Proposed site does not meet the standard.

AO1.3 - Development proposal is insufficiently screened from the road.

AO1.5 - 90% of the proposed site includes reflective surfaces, contradicting the standard.

AO1.7 - Proposed development does not meet this standard.

(8.2.7) Natural Areas Overlay Code

PO1 - Development does not protect matters of environmental significance.

AO1.1 - The proposed development insufficiently meets this standard.

AO1.2 - The report has not been cited.

AO1.3 - The proposal does not explain how it will protect water quality, hydrology and biological process.

PO2. AO2.A - The design insufficiently minimise adverse impact on ecologically important areas. The area is not fully cleared (it has some trees).

AO2.B - Design does not preserve existing habitat.

AO2.D - Design does not sufficiently address impact towards hydrology and drainage patterns.

AO2.E - Design does not ensure that significant former habitats are protected.

AO2.F - Design does not incorporate measures that allow safe movements of fauna through the site.

PO6. - The development does not protect, nor enhance, ecological connectivity or habitat extent.

AO6.1 - The development does not retain native vegetation, but seeks to remove trees of significant ecological value.

AO6.2 - The development does not seek to rehabilitate native vegetation, except as screening.

AO6.3 - Insufficient surveying and reporting about adverse effects on native fauna, feeding, nesting, breeding and roosting, as well as native fauna movement. Also contradicts residents' sightings of tree kangaroos and cassowaries, etc.

PO7 - Development does not minimise disturbance to matters of state environmental significance.

Appendix 3 - The QLD Planning Act 2016

<https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2016-025>

While the proposed DA is not required to be assessed against the Act, the intent of the Act is to inform the development and application of assessment tools (Planning Schemes) utilised by local government authorities. It is important in the context of this objection, to draw your attention to the overall intent of the Queensland Planning Act 2016, which is an Act

providing for an efficient, effective, transparent, integrated, coordinated and accountable system of land use planning and development assessment to facilitate the achievement of ecological sustainability.

Advancing the purpose of this Act includes—

- (a) following ethical decision-making processes that
 - (i) take account of short and long-term environmental effects of development at local, regional, State and wider levels; and*
 - (ii) apply the precautionary principle, namely that the lack of full scientific certainty is not a reason for delaying taking a measure to prevent degradation of the environment if there are threats of serious or irreversible environmental damage; and*
 - (iii) seek to provide for equity between present and future generations; and**
- (b) providing opportunities for the community to be involved in making decisions; and*
- (c) promoting the sustainable use of renewable and non-renewable natural resources, including biological, energy, extractive, land and water resources that contribute to economic development through employment creation and wealth generation; and*
- (d) valuing, protecting and promoting Aboriginal and Torres Strait Islander knowledge, culture and tradition; and*
- (e) conserving places of cultural heritage significance; and*
- (f) providing for housing choice, diversity and affordability; and*
- (g) encouraging investment, economic resilience and economic diversity; and*
- (h) supplying infrastructure in a coordinated, efficient and orderly way; and*
- (i) applying amenity, conservation, energy use, health and safety in the built environment in ways that are cost-effective and of public benefit; and*
- (j) avoiding, if practicable, or otherwise minimising the adverse environmental effects of development (climate change, urban congestion or declining human health, for example).*

This highlights the need to take into consideration the broader sustainability of the project, as well as immediate and ongoing impacts, with the specific intent that development should facilitate ecological sustainability.

I submit that the proposal does not advance the purpose of the Act. See below table for a brief summary of the problematic nature of the proposal with regard to the Act, noting that this view is bolstered by a detailed assessment against the applicable zone/local plans which has been detailed previously.

<p>a) <i>follow ethical decision-making processes that</i> <i>(i) take account of short and long-term environmental effects of development at a local level</i></p>	<p>The Proposed DA will</p> <ul style="list-style-type: none"> • encourage further development of currently undeveloped land in the Daintree which may otherwise be bought back under several current buy back schemes thus alienating land from possible future inclusion in the National Park. • It is also likely to facilitate further development intensity in current development especially Tourism infrastructure resulting in larger visitor numbers and a bigger impact and human footprint on a very fragile ecosystem
<p><i>(ii) apply the precautionary principle, namely that the lack of full scientific certainty is not a reason for delaying taking a measure to prevent degradation of the environment if there are threats of serious or irreversible environmental damage;</i></p>	<p>Applying the Precautionary Principle in this case would require extensive further studies to determine and assess</p> <ul style="list-style-type: none"> • accurate energy demand by sector, accurate current diesel generator use, potential environmental impacts of increased and intensified development • If there are alternative more sustainable models for the proposal
<p><i>iii) seek to provide for equity between present and future generations;</i></p>	<p>This DA argues that residents will be provided with greater social equity as a result of this project, however this is an extremely narrow minded view. The proposal</p> <ul style="list-style-type: none"> • Is limited in terms of the number of customers able to connect to the system, with potential to increase social inequality • Is proposed to offset the consumption of diesel generator use in the Daintree - primarily used by large businesses, i.e. the project does NOT primarily service the needs of the local community or lead to greater social equity, it is a benefit primarily to business operators. • Does not anticipate being able to cater to 'new customers' i.e. future generations • Does not have scope to further expand the project, without greater incursion into land in the Conservation Zone, including all associated detrimental impacts on visual amenity, environment and sustainability
<p><i>b) providing opportunities for the community to be involved in making decisions</i></p>	<ul style="list-style-type: none"> • Community involvement e.g. surveys, stakeholder involvement, consultation, has been extremely limited

	<ul style="list-style-type: none"> • at no point since 2016 has the community been presented with alternative models for this proposal and responses sought • At no point have costings to consumers of alternate models been presented for public comment • Despite the most recent study (the KPMG Daintree Electricity Supply Study 2019) recommending an alternate supply option, this was not presented to the community for public comment or community members surveyed through a formal survey process
<i>c) promoting the sustainable use of renewable and non-renewable natural resources, including biological, energy, extractive, land and water resources that contribute to economic development through employment creation and wealth generation;</i>	<p>"Promoting the sustainable use of renewable and non-renewable natural energy resources..." in terms of this proposal would more appropriately be</p> <ul style="list-style-type: none"> • enhancing current Stand Alone Power Systems (SPS) with improved battery banks as an interim solution for the region while other potential long term solutions are investigated and potentially relevant technologies mature (as per the preferred option identified in the 2019 KPMG study) <p>Where the majority of residencies already have on-site PV systems, the availability of a micro-grid would encourage further electricity usage, beyond the current low-scale and environmentally sensitive levels of energy consumption.</p>
<i>(i) applying amenity, conservation, energy use, health and safety in the built environment in ways that are cost-effective and of public benefit</i>	<p>The proposed DA significantly fails the public benefit test in that it is</p> <ul style="list-style-type: none"> • inflexible (not future proofed for increased demand) • does not take into account stakeholder/residents' best interests (to be able to 'feed in' excess electricity production from currently in-place residential systems) • is not cost effective (refer KPMG report) and; • does not adequately assess the amenity, energy and conservation considerations

Appendix 4 - Douglas Shire Council Strategic Framework

The Douglas Shire Council Strategic Framework sets out several themes, elements and specific outcomes which set policy direction for the whole of the Planning Scheme and include several very important concepts with significant relevance to the project, including that:

- *environmental responsibility is fundamental to the community's future and will direct land use decision making*
- *the Shire's topography, creeks, rivers, coastlines and natural environment creates a strong sense of identity and of belonging to a place with a particular character and history. This sense of place enhances the quality of life for its residents, and is of great value to tourism*
- *those parts of the Shire in the Wet Tropics and Great Barrier Reef World Heritage Areas, and other areas of environmental value and ecological significance, are preserved and protected for nature conservation, landscape/scenic quality, biodiversity and habitat values."*
- *development north of the Daintree River is restricted to achieve low key, sustainable and self-sufficient outcomes and is carefully planned to conserve the scenic and ecological World Heritage values of the area.*
- *The unique environmental character of the Shire comprising internationally renowned landscapes, ecologically significant rainforest systems, sensitive coastal systems and areas of unsurpassed natural beauty, are maintained in association with sustainable development practices, which seek to minimise the effects of development on the natural environment.*
- *Development protects, maintains and enhances the region's Landscape values*
- *equitable access is provided to a complete range of services*

As this strategic vision feeds down into the more direct planning policy of the Zones and Codes, these matters have been addressed in detail previously. I strongly believe that the proposal is entirely inconsistent with the desired outcomes for the area. As this strategic direction is the foundation of the relevant planning policies, the matters it sets out should be at the forefront of decision making.

Additional notes:

The strategic framework sets out that *equitable access should be provided to a complete range of services*. This development proposal does not represent any step towards equitable access to services (i.e. electricity) as:


- It is limited in terms of the number of customers able to connect to the system, with potential to increase social inequality
- It is proposed to offset the consumption of diesel generator use in the Daintree - primarily used by large businesses, i.e. the project does NOT primarily service the needs of the local community or lead to greater social equity, it is a benefit primarily to large business operators
- Does not anticipate being able to cater to 'new customers' i.e. future generations
- Does not have scope to further expand the project, without greater incursion into land in the Conservation Zone, including all associated detrimental impacts on visual amenity, environment and sustainability

This concern is also noted with regard to the Queensland Planning Act 2016 (appendix 3).

Appendix 5 - Inadequacies in current DA and additional requirements for future proposals

Crucial deficiencies exist in the DA regarding environmental impact assessment and community consultation to justify the basis for the proposed development. As part of this objection, I request the following actions to be taken by the applicant in order to adequately address the specific needs of the Daintree Coastal community:

- Social research to justify the intervention proposed by the DA on Daintree residents and small businesses
- Evidence that recent documented, qualitative community consultations undertaken with a range of households in the Daintree area align with the proposed model and anticipated outcomes of the project
- Evidence of more substantial impact assessments according to applicable area overlays including:
 - Vegetation
 - Fauna
 - Drainage/irrigation
 - Chemical use in site maintenance
 - Parking and transport
 - Earthworks as part of construction
- An Environmental Management Plan which addresses not only the construction phase of the proposed development but also the ongoing operations of the solar farm/ energy utility and the potential short-term, mid-term and long-term impacts on the ecology of the Conservation Zone AND adjacent landholders and businesses.
- Evidence that the project proposal is the best choice of options evaluated in the most recent study into electricity provision for the Conservation zone of the DSC Planning Scheme (i.e. the 2019 KPMG Daintree Electricity Supply Study prepared for the Queensland Department of Natural Resources, Mines and Energy).



23/11/2023

Attn: Ms. Rebecca Trantino - Assessment Manager, Douglas Shire Council

Re: CA 2023_5496 - Objection to planning application for 174 Buchanan Creek Drive, Cow Bay.

Dear Ms. Trantino,

I wish to submit my formal objection to the development proposed for 174 Buchanan Creek Drive, Cow Bay, by Voltage Advisory Group Limited.

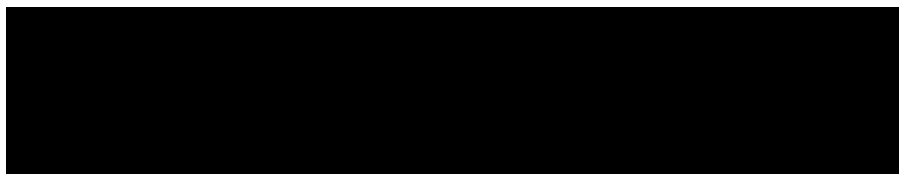
The comprehensive grounds for my objection are detailed in the document below, based on contradictions posed by the DA to the following regional planning frameworks, codes and local overlays specific to the Daintree Rainforest Conservation Zone. The main substance of my objection is that the proposed Daintree micro-grid development (DMG):

- will inevitably facilitate and encourage further development in the Conservation zone
- is not consistent with broader sustainability outcomes
- has not been justified in being an essential community infrastructure need
- does not have sufficient information regarding project viability and is based on inadequate research and outdated data
- is likely to significantly impact local ecology and biodiversity both through stimulating a larger development footprint and intensity AND directly on the site and its surrounds
- poses significant detrimental visual impact that cannot be appropriately mitigated
- will result in noise and disturbance both during construction and ongoing site operations
- has not demonstrated acceptable response to fire and chemical hazard risks posed by a high voltage system with hydrogen and LPG storage
- contains inconsistencies, errors and omissions such that a proper assessment cannot be undertaken, including with regards to the safety of project operations

These objections are strongly tied to the requirements of the applicable State and Local Planning policies, strategic frameworks and codes, and I submit that the proposal:

- does not comply with and is contrary to the intent, purpose and requirements of the Conservation Zone of the DSC Planning Scheme
- is not consistent with the Cape Tribulation and Daintree Coast Local Plan, including the purpose and requirements of Precinct 5 (Low impact rural production and tourism enterprise)
- is not consistent with the Douglas Shire Council Strategic Framework and broader sustainable development vision;
- Is not consistent with the broader intent of the Queensland Planning Act from which the planning scheme derives;
- is inequitable to members of the local community and unsustainable in both design and responsiveness to local energy needs;
- has been developed without adequate survey data, appropriate consideration of alternative proposals or legitimate community-wide consultation.

The submission I have prepared to substantiate these objections comprises, in the first place, a detailed summary of terms of my objection with reference to the relevant planning documentation. The specific details of my objection with regard to the codes and local plans are included as appendices to this document.



Application No.	Details
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CA 2023_5496	
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	Property Address: CA 2023_5496 – 174 Buchanan Creek Road COW BAY
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	Applicant Name & Address: Volt Advisory Group Pty Ltd, Lvl 7, 757 Ann Street, FORTITUDE VALLEY QLD 4006
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	Proposed Development: Combined Application (MCUI, ROL 1 Lot Into 2 Lots & OP Works)
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Signed:

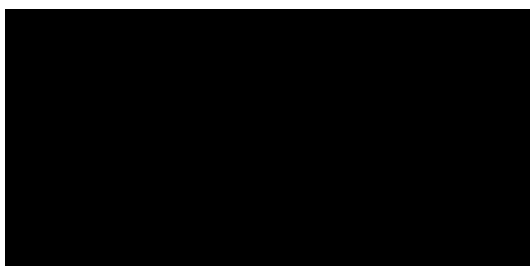


Table of Contents

	Page
1. Introduction and submission context	4
2. Summary of DA	5
3. Summary of Objections	6
4. Conclusions	8
Appendix 1 - Details of objections	10
Appendix 2 - Inconsistencies with overlay codes	31
Appendix 3 - Incompatibility with QLD Planning Act 2016	33
Appendix 4 - Contradictions with DSC Strategic Framework	36
Appendix 5 - Inadequacies of current DA - Additional requirements for future proposals	37

1. Introduction and submission context

My key objection to this DA is in relation to the proposed Material Change Of Use, which requires both Impact Assessment and Code Assessment. I am specifically concerned about the construction and operation of an 8 MW electrical generation (solar) station which will comprise a solar farm, battery storage, emergency generator backup, containerised electrical switchgear and a containerised hydrogen electrolyser and fuel cell on the project site.

While it is not a current part of this DA, I am additionally concerned about the electrical distribution aspects of this proposed development upon which this proposal depends. Traversing 56 km of road way or road reserve via underground cabling in conduits with approximately 68.9km of cables, 27 transformer kiosks and the installation of requisite junction boxes and switchgear. This proposal impacts all 32 road reserves between and including Cow Bay to Cape Tribulation.

The Daintree area is a highly significant ecological area, hence its listing as a World Heritage Site. All development within this area has the potential to degrade and threaten these ecological values and in recognition of this, Douglas Shire Council has developed a number of planning frameworks and documents to manage and direct development (Conservation Zone/ Cape Tribulation and Daintree Coast local plan code and various overlays).

At every level within DSC planning guidelines (Planning Scheme, Strategic Framework/ Overlays/ Codes/ Local plans) the potential for development to threaten the ecological values, biodiversity and unique tourism potential of the Daintree (and the Conservation zone) is recognised. It is also recognised that any single development which encourages a further development footprint or intensity has a significant potential to threaten the underlying biodiversity and ecological values of the area.

The grounds on which a Material Change Of Use can gain approval are therefore extremely limited and require the applicant to demonstrate that it meets the entire requirements of the DSC Planning Scheme including all relevant plans, codes and overlays.

Outdated, inadequate research has been used to justify the project as a whole and the model for this particular development in terms of

- justifying the proposed development as essential community infrastructure
- residential demand both re electricity volumes (Kw/h) and the means of supply
- current residential electricity production volumes and sources
- contemporary technology and alternate electricity production/supply options
- models for the extrapolation of residential electricity usage

such that the "essential" nature of this particular proposed development is highly questionable. Furthermore, the proponent has not adequately demonstrated that the particular model for this project is the best option, or that it will even meet the needs of residents in terms of equity of supply, stakeholder involvement and public good (e.g., no feed-in potential to the micro-grid has been provided for).

In addition, the DA for this proposed development has failed to demonstrate (and in some cases has not even tried to demonstrate) that it is sustainable in terms of

- long-term demand
- the immediate supply constraints
- the potential to expand
- reliability
- the timeframe before the technology is superseded
- the cost to residents of connection, rewiring existing dwellings and the market price at which the electricity will be sold

2. Summary of DA

Development Application CA 2023_5496 -174 Buchanan Creek Rd, Cow Bay requires:	
Impact Assessment against the whole of the DSC Planning Scheme for	<ul style="list-style-type: none"> • Material Change of Use - Renewable Energy Facility and Battery Storage Facility (8MW electrical generation solar station and battery storage) and; • Reconfiguring a Lot - creating 2 lots by lease agreement for a period of more than ten (10) years - Lease area B and Lease area C
Code Assessment for	<ul style="list-style-type: none"> • Material Change of Use- Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power) • Operational Work - excavation and fill over 25m3: and; • Operational Work - Work within an unconstructed local government road between Lease Area B and Lease Area C(underground cables and construction of road access driveway and drainage

3. Summary of objections (detailed in appendices)

- 1. Alignment with DSC Planning Scheme, Conservation Zone Code, Cape Tribulation & Daintree Coast Local Plan Code Precinct 5 and relevant overlays**
 - Proposed DA is not aligned with and contradicts the stated purpose of the Queensland Planning Act 2016, the DSC Planning Scheme, Conservation Zone code 6.2.3, the CT & DC Planning code (Precinct 5) and a number of relevant overlays
 - Will inevitably lead to increased and potentially unsustainable development threatening the natural biodiversity

- 2. Unsustainable development approach in submission**
 - Micro-grid model proposed in DA is likely to be superseded by changes in technology
 - No mechanisms conveyed in DA to address long-term sustainability and viability of the infrastructure over the 25-year period
 - Micro-grid system poses a high risk as a business model
 - Inequitable approach taken to provision of local power supply
 - Inflexible system that cannot be scaled up as needed

- 3. Lack of project viability based on inadequate research and outdated data**
 - The DA proposal contradicts the latest, most comprehensive study (KPMG Daintree Electricity Supply 2019)
 - The DA references the 2016 Compass Report (Daintree Cape Tribulation Electricity Survey) as a justification for the project model. This survey used inadequate and flawed data sets AND misrepresented survey outcomes
 - Utilised outcomes from the 2018 Sunverge "Powering Daintree" Report which used inadequate and flawed data sets

- 4. Impact on ecology and biodiversity**
 - The increased development in the conservation Zone likely to result from the proposed intervention will undermine the intent of the Zone, creating a precedent for further unsustainable developments
 - The proposed micro-grid will provide a stimulus for energy demand in the Conservation Zone and become a catalyst for further expansion to the solar production infrastructure increasing the threat to inherent conservation and ecological values
 - The increased development in the Conservation Zone resulting from the proposed development will further alienate existing habitat, transport corridors and highly localised flora and fauna undermining the regions ecological values and biodiversity
 - Fencing of the proposed project site will prevent movement of fauna from the adjacent National Park to other areas of the park and to adjacent roadside verges and transport corridors
 - Endemic local fauna such as tree kangaroos, dingoes, reptiles, ground birds and cassowary that are regularly sighted on Silkwood Rd will be impacted by the development activity

5. **Visual and amenity impacts (Conservation Zone and Cape Tribulation & Daintree Coast Local Plan)**
- High visual impact on residents and visitors to Silkwood Road businesses
 - Inadequate provision for immediate and long-term screening, including screening from the gateway
 - 1.8m - 2m high security fence of the whole lease area is not noted as a visual impact in the DA; no adequate provision has been made to assess visual impact of this structure or to address adequate screening
 - "Lake Effect" - risk to endemic birds of the Conservation Zone to be impacted by glare during flyover
 - Light pollution due to security lights at night-time will impact nocturnal wildlife
6. **Noise and disturbance posed by construction and ongoing site operations**
- Residents and visitors to 2 accommodation residences on Silkwood Road will be impacted during construction by:
 - Transport noises from trucks and vehicles transporting materials and infrastructure to the site
 - Use of tools, on-site generators and power tools
 - Dust from earthworks and construction activities
 - Traffic movements of heavy machinery accessing and operating on the development site
 - General traffic management on Silkwood Road during construction period
 - Residents and visitors to 2 accommodation residences on Silkwood Road will be impacted during ongoing operation of the proposed development by noise pollution from general site operations, the use of backup generators during emergency outages and brushcutters/ tractor slashers which are designated for site maintenance
7. **Fire and chemical hazard risks posed by high voltage system with hydrogen and LPG storage**
- The proposed infrastructure/ technology (both battery and hydrogen as well as LPG storage) poses an unacceptable risk in relation to fire and lightning strikes which are common in tropical areas
 - Insufficient risk assessment and mitigation measures by applicant and lack of a fire safety and evacuation plan for nearby residents
 - Insufficient HAZMAT Plan in DA by applicant, given the nature and complexity of the proposed development
 - Risks posed by limited road access and exit for workers and guests of nearby accommodation providers in case of gas explosion and/or fire
 - Chemical pollution which may result from weed control and insect management is likely to impact the lease area and neighbouring properties and has not been referenced or adequately assessed in the DA

4. Conclusions

I therefore submit that there are so many areas in which this DA is deficient for such a major project, is not aligned with, contrary to, or undermines the intent and purpose of State and Local planning frameworks, Planning Schemes, planning codes and overlays that it should be refused.

Further, if a future application was to be presented, it would need to incorporate significant changes and substantial research to support the proposed development and to address specific concerns related to:

- Biodiversity and conservation impact
- Future development impact
- Sustainability
- Visual amenity
- Noise
- Ongoing environmental management planning
- Drainage design
- Fire/bushfire/explosion risk
- Fauna impact

Please see Appendix 5 for further details.

Appendices

Appendix 1 - Further information regarding specific objections

1. Alignment with framework, DSC Planning Scheme, Conservation Zone Code, Cape Tribulation & Daintree Coast local plan, Precinct 5 and relevant overlays

The proposed DA

- is not aligned with and contradicts the stated purpose of the Queensland Planning Act 2016, the DSC Planning Scheme, Conservation Zone code 6.2.3, the CT & DC Planning code (Precinct 5) and a number of relevant overlays
- will inevitably lead to increased and potentially unsustainable development in the area, threatening the natural biodiversity

A. Conservation Zone Code (5.6C)

The proposed DA is not aligned with the stated purpose of the Conservation Zone code (6.2.3):

1. *The purpose of the Conservation zone code is to provide for the protection, restoration and management of areas identified as supporting significant biological diversity and ecological integrity.*
2. *The local government purpose of the code is to:*
 - (a) *implement the policy direction set in the Strategic Framework*
 - (b) *conserve and maintain the integrity of biodiversity values, wildlife, habitats and other significant ecological assets and processes over time, across public and private lands.*

The Proposed DA is likely to significantly impact biological diversity and ecological integrity (wildlife, habitats, other significant ecological assets) of the zone by

- Facilitating and encouraging further residential development and current development intensity
- Facilitating and encouraging further SME and commercial development and current development intensity
- Facilitating and encouraging increased visitor numbers (both daytrippers and overnight stays)

This is further detailed in Appendix 4.

The proposed DA is inconsistent with a number of the desired outcomes of the code:

- (3) *The purpose of the code will be achieved through the following overall outcomes:*
- (a) *Biological diversity, ecological integrity and scenic amenity are protected;*
 - (b) *Any recreational or other uses of areas that are in the control of the Crown, or the Council, such as reserves, national parks and the Wet Tropics World Heritage Area or areas adjacent to these areas, are consistent with the management plans of the controlling authority so that conservation and scenic values of these areas are not adversely affected;*
 - (c) *Any use of land in private ownership does not affect the environmental, habitat, conservation or scenic values of that land or surrounding area;*
 - (d) *Any low intensity facilities based on the appreciation of the natural environment or nature based recreation only establish where there is a demonstrated need and provided they have a minimal impact on the environmental and scenic amenity values of the site or surrounding area.*
 - (e) *The provisions of the Return to Country Local Plan facilitate economic and social opportunities on traditional Indigenous lands;*
 - (f) *Further lot reconfigurations other than amalgamations, boundary realignments to resolve encroachments, or for the practical needs of essential community infrastructure, or to facilitate Return to Country outcomes do not occur.*

The proposed DA

- makes minimal and insufficient provision to protect scenic amenity
- threatens the biological diversity and ecological integrity of immediate surrounds and the zone as a whole
- affects the environmental, habitat, conservation and scenic values of both the proposed lease site land surrounding area
- is not for a low intensity facility
- has not sufficiently demonstrated a need and or provided sufficient evidence that it will have a minimal impact on the environmental and scenic amenity values of the site or surrounding area

- has not provided evidence that the DMG is essential community infrastructure as required for lot reconfigurations - 'essential community infrastructure'.
- does not demonstrate that it is self-contained through the use of appropriate on-site or nearby rainwater collection and storage, sewerage treatment and electricity generation

With regard to the above points, matters regarding scenic amenity and ecological/ biodiversity impacts are detailed further in this objection.

In addition, the DA specifically contravenes many Performance Outcomes identified in Table 6.2.3.3.a - Conservation zone – assessable development. The proposal does not meet the performance outcomes, as described in the below table:

Performance outcomes of the Conservation Zone	
PO1	The DA is for a Material Change of Use- Renewable Energy Facility and Battery Storage Facility, and for Material Change of Use- Utility Installation (hydrogen production, hydrogen power generation conversion and utility installation to distribute generated power). The proposal is <i>inconsistent</i> with the outcomes sought for the Conservation zone and <i>does not</i> protect the zone from the intrusion of inconsistent uses. A utility installation is an inconsistent use, as listed in 6.2.3.3b, and is not an acceptable outcome with regard to the Conservation Zone.
PO3:	Though not specified explicitly in the DA, it appears from the scale drawings of the site plan that solar arrays which can be considered to be 'structures' will be installed less than 20m from the lease boundary along Silkwood Road and likely within 5m or 8m. As adequate screening cannot be provided in the short or medium term (for up to 10 years) through the DA's proposal to limit screening to vegetation 'thickening' of the existing roadside reserve, the development will be easily visible during construction and for many years of initial operation from Silkwood road users. This makes the DA non-compliant with PO3 and constitutes a significant compromise to the scenic values of the area. While the height of the solar panels is less than that of a dwelling or typical building, and the applicant may seek to vary the requirement on this basis, due to the scale of the proposal the visual impact will be significant, and no variation to the 20m setback requirement should be allowable.
PO4:	While the development is proposed for an already (largely) cleared area (AO4) it clearly does NOT meet the outcomes described in PO4. Currently the scenic values of the project site are high constituting an idyllic farm view, with remnant vegetation/tall trees, pioneer rural ploughs and tranquil cattle grazing. Many guests to the Epiphyte B & B and Hibiscus Cottage (Overnight Stays) photograph this view from a viewpoint on Silkwood road especially at sunset. The proposed site coverage of buildings, structures and security fencing will certainly have a significant adverse effect on the scenic amenity values.
PO5:	The proposed development is NOT consistent with the overall outcomes sought for the Conservation Zone as identified above.
PO6:	The proposed development clearly does NOT complement and is not subservient to the surrounding environment nor is it in keeping with the ecological, landscape and scenic values of the area. It is clearly impossible to install solar panels which

	are non-reflective and blend easily with surrounding native vegetation and viewshed (AO6).
PO7:	<p>The proposed DA does NOT adequately screen the development from view from the adjoining road (Silkwood Road) with a dense screen of endemic/native landscape which is</p> <ul style="list-style-type: none"> a) informal in character and complementary to the existing natural environment; (b) provides screening; (c) enhances the visual appearance of the development <p>It also does NOT provide for the balance area of the site not built upon, including all setback areas to be landscaped/revegetated with dense three tier, endemic planting which is maintained to ensure successful screening is achieved. Furthermore, due to the proposed subdivision by lease agreement, the 'balance' of site area able to be revegetated is significantly limited, particularly if the development must also account for bushfire management, including cleared buffer areas. It has not been demonstrated that an appropriate balance between development and natural environment can be struck. -</p> <p>The nominated commercial contractor has advised of the likely timeframes and outcomes of the proposed 'thickening' of existing vegetation on the Silkwood Road roadside verge in terms of providing an adequate screening buffer. It is apparent that it would take at least 6-10 years for screening limited to the roadside verge to screen visibility of the site from Silkwood Road traffic and pedestrians. To effectively screen the site during construction and for the first 6-10 years of operations it would be necessary to provide a second layer of bushy low vegetation screening inside the lease area (e.g. inset 3m-5m from the current lease boundary where in full sun it would grow quickly and easily. This should be provided in addition to the three tier endemic planting required under PO7.</p>
PO8:	<p>The development can in no way be considered 'complementary' to the surrounding environment and requires significant earthworks to site buildings, drainage lines and roadways. While the proponent asserts no terracing will be required for the installation of solar arrays it is not clear how this could be the case on the large unevenly sloping lease site.</p> <p>AO8.2 While the proponent asserts no driveways or parking are required to be constructed it is clear a significant roadway capable of handling heavy vehicles during the construction phase of the project and parking for ongoing project workers and maintenance crew will definitely be required.</p> <p>A0-8.3 A geotechnical report has not been provided assessing the impact of development on any land with a gradient greater than 1:6.</p>
PO9:	<p>The development does not protect the ecological values of either the site or especially the surrounding land, does not adequately protect the scenic values of the area, does not provide sufficient setbacks from overland flow paths (see notes below on drainage patterns within the project site) and does not adequately minimise visibility from external sites or public viewing points on Silkwood Road.</p> <p>NOTE: Visitors to Crocodylus Village hostel (700m away), Hibiscus Cottage and Epiphyte B & B (both opposite the site) routinely traverse Silkwood Road on foot especially at sunset to enjoy and photograph the views across the current farm - the proposed project site. See attached photos.</p>

PO10

PO 10: There is a significant risk that the proposed development will result in adverse impacts:

(a) on ecological function or features especially at a larger scale in terms of spurring development within the entire Conservation Zone but also more locally as identified above with local fauna. There is also a significant risk during construction from noise, dust, chemical spill, general activity of a detrimental affect on ecological function and more particularly during ongoing operations of fire, explosion, chemical spills etc.

Buchanan Creek is a significant adjacent waterway and it is not clear from the project documentation that there is adequate protection from polluted or contaminated water, erosion from project-created flooding and drainage surcharge routes or other significant polluting events.

(b) as described in PO9 the development will not maintain the scenic values of the area

(c) It has not been demonstrated that appropriate setbacks to Buchanan Creek have been provided (see also comments regarding impacts to Buchanan Creek)

(e) while the application documents note that site excavation is 'minimised', there is still great concern with regard to potential impacts from excavation, particularly on drainage patterns and impacts to Buchanan Creek.

(f) appropriate buffers to Buchanan Creek has not been provided

(g) visibility of the development to external sites is NOT minimised (residencies, Silkwood Road which is also a common viewing point as described in PO9).


Sufficient screening has not been provided, with no provision for on-site screening measures.

(h) Detail of vegetation as seen in aerial imagery has not been provided. Scattered trees can provide areas for roosting and foraging and impact fauna habitat as well as landscape quality.

While vegetation and fauna habitat may be only minimally affected on the actual project site, the development will certainly act to 'alienate' habitat for wildlife in the adjoining areas of National Park and the roadside verge. These areas are both home to Bennets Tree Kangaroo, Cassowary, Dingo, Paddymelon and numerous reptiles and birds. Without a significant study - which has not been undertaken - it is not possible to assert that the disturbance will not be significant.



View across the proposed development area from viewing point on Silkwood Road.

	 <p>Bennett's Tree Kangaroo (near threatened endemic species) sighted at top of proposed development area on the roadside verge.</p>
PO11	<p>Site area will be disturbed as part of the construction of development. No rehabilitation has been proposed. This would be essential in maintaining (and improving) the environmental integrity of the area. This is of particular importance due to the proximity to Buchanan Creek, and potential for contamination, erosion and other environmental impacts from drainage, construction and ongoing management processes (as also described above)</p>
PO12	<p>PO 12: It is clear the proposed fencing (which is mandatory for such a development) will certainly impede the free movement of native fauna through the site. This includes dingo, cassowary and reptiles all of which are currently common and regularly seen in and adjacent to the proposed project area. Proposed security lighting is also likely to be a hazard to many nocturnal animals and birds.</p>

B. Cape Tribulation and Daintree Coast local plan code (7.2.1):

The intent of this local plan is to minimise the impact of development, and ensure that development allowed within established residential areas maintain a low environmental impact. The need for the local plan was established from recognition that development associated with 'rural residential style' lots in the daintree posed a risk of significant detrimental impacts on the ecology and landscape character of the area (see 7.2.1.2 of the local plan code which covers the context of the plan in detail). Section 7.2.1.2 also acknowledges the compounding nature of further development spurring increased services and infrastructure, which in turn leads to more development pressure and associated detrimental impacts. It highlights the need for preserving the natural environment, landscape character and low-key nature of development and intrinsic attractiveness of the area.

The purpose of the Cape Tribulation and Daintree Coast local plan code clearly sets out how this intent is to be achieved in section 7.2.1.3 *Purpose* (below)

(1) The purpose of the Daintree River - Bloomfield River local plan is to retain the attraction of the area as a very low-key, largely undeveloped nature-based recreation environment, based on Douglas Shire Planning Scheme 2018 Version 1.0 Part 7: Local plans Part 7: Page 4 the exploration and appreciation of the natural environment and to ensure that any development that does occur is appropriate and does not place additional pressures on the values of area.

(2) The purpose of the code will be achieved through the following overall outcomes:

- (a) areas within the local plan are appropriately managed to protect biological diversity, water catchment quality, ecological functioning, beach protection and coastal management, scenic amenity, and historical and cultural values;*
- (b) the natural character of the locality is protected, and where degraded, restored or enhanced;*
- (c) new development does not occur, with the exception of development located within, and consistent with the respective precinct intents for:*
 - (i) Precinct 1 – Conservation precinct*
 - (ii) Precinct 2 – Low impact residential precinct;*
 - (iii) Precinct 3 – Low impact commercial precinct;*
 - (iv) Precinct 4 – Low impact community purpose precinct;*
 - (v) Precinct 5 – Low impact rural production and tourism enterprise precinct;*
 - (vi) Precinct 6 – Low impact tourism accommodation precinct;*
- (d) where development occurs it is:*
 - (i) very low scale and remains within the limits imposed by the vehicular capacity of the Daintree River ferry crossing, the Alexandra Range road crossing and the local road network;*
 - (ii) sensitive and sympathetic to its remote location in an area of unique biodiversity, ecological, conservation and scenic amenity value;*
 - (iii) self-contained through the use of appropriate on-site or nearby rain water collection and storage, sewerage treatment and electricity generation;*
- (e) adequate services and facilities for settlement areas and an appropriate level of economic opportunity for local residents are provided*

Proposed DA contradicts the stated purpose and assessment criteria of the Cape Tribulation and Daintree Coast local plan code on the following basis:

- Is NOT low-key and will inevitably lead to increased development and resident population (see KPMG 2019/ Sunverge 2018) as well as enabling higher energy consumption as a result of increased availability of off-site energy supply. Clearly this is considered to be contrary to the preferred outcomes of this plan.

- Is not sensitive and sympathetic to its remote location in terms of biodiversity, ecological function, conservation and scenic amenity (see further detail regarding impacts on environmental/ecological function, Buchanan Creek, scenic amenity below)
- Will affect the natural character of the locality
- Does not attempt to restore or enhance degraded local character (where the broader local character is low-land tropical rainforest, this historically cleared site can be considered 'degraded', and any development should include restoration and enhancement of natural environment)
- Will place additional strain on the capacity of the Daintree River ferry and Silkwood Road during construction
- Is a new development and inconsistent with the respective precinct intents for Precinct 5 (see detailed assessment in section C regarding Precinct 5)

With specific regard to the assessment criteria of the Cape Tribulation & Daintree Coast local plan, the proposal fails to demonstrate an acceptable outcome (see table below)

Assessment against Cape Tribulation & Daintree Coast local plan code	
PO1	Additional strain will be placed on the capacity of the Daintree River ferry and Silkwood Road during construction, and for ongoing maintenance.
PO3	The DA does not address or make provision for sanitary services post construction and does not address wastewater or effluent processes
PO4	The DA does not adequately detail strategies for the protection of natural water resources (Buchanan Creek) or remnant vegetation along the creek/lease boundary from wastewater, sedimentary inundation, chemical spills, excessive flooding or other contamination during construction or due to the ongoing site activity. Engineering plans for cross-water flow (specifically from the eastern side of Silkwood Rd via the under-road culvert and from drainage lines under solar arrays) do not demonstrate sufficient research or understanding of rainfall intensity, water flow or flood events in the specific lease area and surrounds.
PO5	
PO6	The development can in no way be characterised as subservient in scale and intensity to the surrounding natural environment, which is National Park and rural low-impact production precinct. The solar panels are a reflective product that will not complement the colours of surrounding vegetation and view shed. Reflection and glare will detrimentally impact residents/businesses located on Silkwood Road.
PO7	Landscaping should reflect the endemic character of the local area and (as in PO26, Precinct 5), a balance of the site should be revegetated/rehabilitated HOWEVER no landscaping is proposed in the DA.
PO9	The on-site impacts on natural flow regimes and erosion and sedimentation are inadequately assessed or addressed and appear to be insufficient to avoid flooding and erosion of the site and subsequent discharge of sediment and potentially contaminated water into Buchanan Creek (as in PO4/PO5). There is no proposed revegetation of exposed areas shown on the plans, essential in protecting the environmental qualities of the site and Buchanan Creek.

The Cape Tribulation and Daintree Coast local plan, in Section 7.2.1.3, asserts that the purpose of the local plan will be achieved through:

- Appropriately managing areas to protect biological diversity, water catchment quality, ecological functioning and scenic amenity
- Where development occurs, ensuring it is:
 - Very low scale
 - Sensitive and sympathetic to its remote location [...] ecological, conservation and scenic amenity value
 - Self-contained through the use of appropriate on-site or nearby rainwater collection and storage, sewerage treatment and electricity generation

The earthworks and associated works required for the renewable energy facility and battery storage will impact the drainage pattern of the land. The plans show drainage surcharge routes within the property, feeding into the existing overflow path from Silkwood Road.

In 3.1.1 of the DA it is noted that:

A drainage plan has been identified (see Appendix E, drawing DRE-ELE-GAR-1002) that directs flow away from Buchanan Creek.

It is not clear from this plan or from a site survey how drainage can ultimately be directed away from Buchanan Ck:

- the entirety of the proposed lease areas B and C have fall and drain into Buchanan Creek.
- a significant amount of water traverses the proposed project site as an overland flow line from the National Park above the site AND from Lots 19 - 22 opposite the site (via a culvert under Silkwood Road and a roadside drain on the western side of Silkwood road). The amount of water during regular flood events in this area (3+ times/year) is such that DSC is required to repair this section of Silkwood Road from washout after each such event (please consult your engineering and maintenance sections).
- the DA for this project has specified there are no significant drainage patterns on the proposed site. This is incorrect. A comprehensive drainage survey for the site during flood events needs to be undertaken to ensure any engineering works take appropriate account of this drainage line.
- it is also not clear from the DA how rainwater will be collected from the solar array and directed to the 110,000L water storage tank. Detailed engineering documentation has not been provided to demonstrate these will also not create erosion through overflow during flood and high rainfall events and that contaminated or sediment rich water will not enter Buchanan Creek due to this intervention.
- an erosion and vegetation management plan specific to this flow line and the entire site needs to be provided to ensure Buchanan Creek is not compromised by this development on its immediate eastern boundary.

While the DA notes: *"The DMG project EMP will be updated to include the Erosion and Sediment Control Plan (ESCP) which will be prepared by the construction contractor and approved by the relevant Regulators (e.g. DSC, WTMA) prior to construction"* this appears to have not yet been provided.

- Therefore, it is not possible for DSC planning staff or others to adequately assess whether the DA meets the requirements of
 - PO9 and PO10 of the Conservation Code (6.2.3) or;
 - PO4, PO5 and PO9 of the Cape Tribulation and Daintree Coast local plan code (7.2.1.2)

C. Cape Tribulation and Daintree Coast local plan code: Precinct 5

The Cape Tribulation and Daintree Coast local plan sets out that new development does not occur, except development located within, and consistent with the relevant precinct intents. The proposed development is located within 7.2.1.8 Precinct 5 - Low impact rural production and tourist enterprise precinct

(1) The purpose of Precinct 5 as detailed on the Local Plan maps contained in Schedule 2 is to recognise existing rural areas and permit their continued use, while encouraging low-impact tourism enterprise including bed and breakfast, short term accommodation (being farm stay accommodation) and nature based tourism (being forest stay accommodation) as an alternative land use, where significant restoration and/or rehabilitation measures are undertaken as an incentive.

(2) The overall outcomes sought for Precinct 5 are to:

- (a) provide for continued rural production activities where lawfully established and to permit low-key ancillary tourism enterprise such as farm attractions, roadside stalls in appropriate locations;
- (b) provide for other tourism enterprise in the form of bed and breakfast, farm stay accommodation or forest stay accommodation as an alternative land use to primary production, where significant rehabilitation of habitat is achieved.
- (c) facilitate other existing tourism enterprises based on the appreciation of the natural environment.
- (d) ensure development, including waste treatment is limited to existing cleared areas;
- (e) development, including primary production, is carried out in accordance with an Environmental Management Plan.

The proposed DA

- Is inconsistent with the intent to provide for retention of low impact rural production and to enable low impact tourism.
- The reference in (d) to ensure that any rural or low impact tourism development does not involve clearing existing vegetation is NOT designed to enable alternate land uses (other than tourism enterprise) or significant development on previously cleared areas.

The proposal spectacularly fails to meet the additional requirements of Precinct 5 - low impact production and tourist enterprise precinct, as demonstrated in the table below:

Additional requirements of Precinct 5:	
PO25	The proposed development does not complement, protect or enhance the environmental and scenic values of the site (no on-site rehabilitation of natural environment proposed, detrimental visual impacts will occur to residences./businesses/road-users of Silkwood Road, insufficient information on the environmental impacts on Buchanan Creek/vegetation adjacent, significant impact on natural values of the surrounding area)
PO26	The proposal does not include revegetation or rehabilitation of large cleared sites, and is NOT a suitably <i>small scale</i> development. The site context (being a small site with limited space to construct solar panels within), does not allow for any meaningful 'balance area' of development to be revegetated/rehabilitated.
PO27	<p>Sufficient information to ensure the protection of environmental and scenic values has not been provided (several examples of this have been provided already in this objection. Refer Conservation Zone, and Scenic Amenity Impacts)</p> <p>The Queensland Government Guideline - <i>Preparing Environmental Management Plans</i> outlines likely environmental elements that should be addressed in an EMP. Relevant environmental elements to the Daintree Microgrid Project as identified in the QLD Guideline are summarised in the project DA and proposed strategies detailed in an EMP.</p> <p>The Environmental Management Plan submitted is insufficient in a number of respects:</p> <ul style="list-style-type: none"> • Strategies to minimise dust, noise, social disruption, vibration and traffic management are inadequate and will not alleviate impact on Silkwood Road residents and guests of local accommodation businesses • Strategies to address erosion and sedimentation, fire management, land contamination, flora and fauna, rehabilitation, water quality, weed and pest management are not sufficiently identified to ensure no impact on the lease area and surrounds ecological and heritage values.

2. Unsustainable development approach in submission

The Queensland Planning Act 2016 and the Douglas Shire Council Strategic Framework (further detailed in Appendix 3 and 4, respectively) highlight that in relation to decision making processes for development, there is a need to consider the broader sustainability of a proposal, including both short and long-term environmental effects, matters of equity between present and future generations, and to promote sustainable use of renewable and non-renewable natural resources.

- The Micro-grid model proposed in DA is likely to be rapidly superseded by currently evolving changes in technology which include solar panel efficiency and cost, domestic battery storage efficiency and cost, smart metering and energy-efficient appliances.
While the rest of the country is moving towards a 'Distributed Electricity' model where consumers produce their own energy through rooftop solar and feed in to the grid using the grid as a Virtual Battery (ref SA Virtual Battery) gaining credits to cross-subsidise or negate nighttime energy consumption, this project proposes to effectively replace individual stand-alone energy systems and replace them with a centralised production and distribution network. Additionally, while other grids around the country enable users to feed-in (as above), this proposal has no mechanism or capacity for this and the lack of reference to this deficiency (in a 400+ page DA) is notable!
- There is no detail in DA which addresses the long-term sustainability of the microgrid model either financial or in terms of longevity of the various components (e.g. hydrogen storage tanks and other infrastructure) over the 25-year period inferred for the development. Interestingly, the initial lease is only for a 10 year period which would not come close to providing a sufficient pay back period for the development.
- The Micro-grid system poses a high risk as a business model due to the above, potential low take-up by residents (and insufficient survey data has been gathered to estimate this), the minimal capitalisation of the proponent developer and the potential for failure (lack of reliability leading to alternate arrangements by consumer businesses and residents) of the production and distribution systems.
- An inequitable approach to electricity access for residents/consumers has been proposed in the DA whereby only existing customers (i.e. no new residents or developments) will have access to the electricity produced AND existing residents both commercial and residential will only be entitled to the amount they already produce and consume. No detail at all has been provided of estimates done to ascertain these volumes and it is inconceivable that this could be in any way realistically calculated or demonstrated.
It is certain, however, that IF the development were to gain approval and be constructed, demand would rapidly outstrip supply due to the development impetus provided, leading to
 - a. System failure, brown outs and routine use of (noisier and more polluting) back-up generators (currently designated as for emergency use only) and
 - b. Lobbying for an extension to the solar farm area
 - c. Lobbying for an alternate additional solar farm probably at Cape Tribulation

- It is an inflexible system that cannot be scaled up as needed (see above) and NOTE: the land area of the proposed development site is limited and the proposed solar farm array sizing utilises almost all of the available lease area meaning the array sizing cannot easily be increased and also that there is not the required area of land remaining to provide the vegetation and landscaping which is a usual requirement of any such new development.

Sustainable Development Assertion:

While the applicant contends that this project is essential for the sustainable development of the area, it is imperative to highlight that residents have already been successfully utilising small-scale renewable energy systems in the Conservation Zone for 20+ years and most residents now have fit for purpose, Stand alone Power Systems (SPSs). These existing systems have proven effective in promoting sustainability without the necessity for such a large-scale development. therefore, the argument for the indispensability of this proposal in promoting sustainable development is unsustainable, especially considering the risk to the local ecology and the adverse visual and other impacts it imposes on the community.

3. Lack of project viability based on inadequate research and outdated data

- The DA proposal contradicts the latest, most comprehensive study (KPMG Daintree Electricity Supply 2019: conclusions: section 11) regarding preferred model and data on costings and residential power usage.
This study surveyed and assessed 6 alternate models of electricity provision for the Daintree area (essentially for the Conservation Zone area) and determined that a Microgrid model
 - a. Was too expensive to develop
 - b. Was too expensive for residents to utilise
 - c. Would face 'Reliability' issues
 - d. Would face sustainability and longevity issues
 - e. Would be superseded by alternate technology in a likely short timeframe
 - f. Would likely impact significantly the region's ecological and biodiversity values
 - g. Was inflexible in terms of upscaling to meet new or varying demand
 - h. Did not build on current residential investment (i.e. SPSs)

They concluded SPSs (with the government providing residents with new batteries and other components) were the preferred model because

- a. It would be cheaper for both the government AND residents
- b. Residents would be stakeholders in the initiative and it would build on the existing infrastructure
- c. It would minimise likely threats to the local ecology and biodiversity
- d. It would have the flexibility to be upscaled or downscaled according to needs and changing energy use profiles
- e. It would likely be more reliable
- f. It would enable as yet undeveloped technologies to be utilised rapidly

Even this study is already outdated particularly in its assertion that due to environmental constraints (long wet seasons, shading, above average cloud cover), residents have a heavy reliance on generators.

This contention was truer in 2019 than now, but has for quite some time been erroneous. With the huge drop in the price of solar panels, most residents now have much larger solar arrays than previously and very few non-business residences now run generators more than a few hours a week (at most) for special purposes e.g. to pump water or possibly run a dryer.

In several recent years I have spent a significant time living at and managing the Epiphyte B & B on behalf of my father (where I also spent the entirety of my childhood). The B&B has a 5.5kw solar array, and have not needed to run a generator (at least during the past 3 years since the solar was upgraded) and this is despite running 3 fridges, multiple fans and hosting up to 8 guests at a time. At Hibiscus Cottage there is a 5 kw solar array and despite catering for up to 4 guests at a time (usually guests unused to energy conservation requirements) there has never been the need to run a generator in its 5 years of operation - in fact there IS no generator!

- The DA references the 2016 Compass Report (Daintree Cape Tribulation Electricity Survey) as a justification for the project model. This survey used inadequate and flawed data sets AND misrepresented survey outcomes in terms of likely residential uptake of a microgrid electricity supply.

This telephone survey of 100 residents did not adequately or accurately

- a. control for resident type (e.g. big commercial premises, SMEs, domestic dwellings) in many summaries of answers despite knowing the resident type of all respondents
 - b. control for respondents answering 'Don't Know' (and there were many)
 - c. control for differences between resident type (i.e. large commercial premises or individual households/residences) when averaging out generator run time, fuel used, system size, generator size and many other elements
 - d. Extrapolate from the determined data sets
 - e. compare data sets from the survey area with those for state regional or urban areas
 - f. qualitatively categorise responses when summarising data outcomes e.g. they misrepresent the 'Willingness or likelihood to connect' (i.e. "What would be needed to convince you to connect") where an analysis of qualitative data (individual responses) indicates 66% would not connect or would only connect if it was cheaper, more affordable, subsidised whereas only 13% would connect irrespective.
- The DA utilised outcomes from the 2018 Sunverge "Powering Daintree" Report which
 - a. used inadequate and flawed data sets
 - b. utilised an inadequate model for extrapolating residential generator usage (roof size extrapolation)
 - c. was selectively based on non-representative consumers (just 4 businesses and only ONE residential dwelling)
 - d. used known Pro-power advocates and founding members of a small residents group lobbying for a microgrid as the single 'representative' residential dwelling
 - e. itself utilised the flawed data from the 2016 Compass survey re likely customer take up and preferred models of supply
 - f.
 - A key element of the rationale for this DA is that the proposed development will save approximately 10 million /L of diesel fuel used each year to run generators and offset 8-10,000 metric tonnes (MT) of CO₂e annually.

These figures have been extrapolated from extremely limited and flawed survey data (as above) and no substantial or accurate metered data has been sought or gained even from businesses who have reliable fuel consumption figures let alone from household residences who do not. It is essential to challenge these fuel use and CO₂e emission projections/ extrapolations if the ideal electricity provision model is to be determined and a development whos sustainability is based on this data has a high chance of business failure.

The above goes to the intent of the Queensland Planning Act 2016 and the vision of the Douglas Shire Council Strategic Framework (further detailed in Appendix 3 and 4, respectively) with regard to the 'sustainability' of proposed development.

The proposed lot reconfiguration associated with this development also becomes problematic when project viability comes into question, as the Conservation Zone includes the 'outcome' that further lot reconfigurations do not occur, except for "essential community infrastructure" (and a small number of other exceptions irrelevant to this development). The proposed development has NOT adequately demonstrated it is for 'essential community infrastructure' and there is extensive evidence to support this (see KPMG Daintree Electricity Supply 2019 and other comments above).

4. Impact on ecology and biodiversity

The DSC Strategic Framework, Conservation Zone and the Cape Tribulation and Daintree Coast local plan code all give a high level of importance to ensuring the protection of biological diversity and ecological functioning. This has been detailed in Appendix 1 (Section 1: A, B, C above) and is further detailed in Appendix 2, Appendix 3, Appendix 4 and Appendix 5 of this document (below).

- The increased development in the conservation Zone likely to result from the proposed intervention will undermine the intent of the Conservation Zone, creating a precedent for further unsustainable developments (Appendix 1/Section 1)
- The proposed micro-grid will provide a stimulus for energy demand in the Conservation Zone and become a catalyst for further expansion to the solar production infrastructure increasing the threat to inherent conservation and ecological values (Appendix 1/ Section 1)
- The increased development in the Conservation Zone resulting from the proposed development will further alienate existing habitat, transport corridors and highly localised flora and fauna undermining the regions ecological values and biodiversity (Appendix 1/ Section 1)
- Fencing of the proposed project site will prevent movement of fauna from the adjacent National Park to other areas of the park and to adjacent roadside verges and transport corridors (see Conservation Zone 6.2.3.3, PO12)
- Endemic local fauna such as tree kangaroos, dingoes, reptiles, ground birds and cassowary that are regularly sighted on Silkwood Rd will be impacted by the development activity (see Appendix 1/Section 1/ A: PO10, PO12 // B: Local plan 7.2.1.3// C: PO27)
- Impacts on Buchanan creek (and associated impacts on broader ecological functioning and water catchment quality) have been detailed previously with regard to both the Cape Tribulation and Daintree Coast local plan code (see Appendix 1/ B / PO4, PO5, PO9 and additional notes re water flow paths and drainage)

5. Visual and amenity impacts (Conservation Zone and Cape Tribulation & Daintree Coast Local Plan)

- High visual impact on residents and visitors to Silkwood Rd businesses (The Epiphyte B&B and Hibiscus Cottage) - This has been referenced in detail with regard to the Conservation Zone and the Cape Tribulation and Daintree Coast local plan code (see Section 1: A and B)
- Inadequate provision for immediate and long-term screening, including screening from the gateway (an integral outcome referenced extensively under the Conservation Zone and the Cape Tribulation and Daintree Coast local plan code) (see Section 1: A and B)
- The 1.8m - 2m high security fence of the whole lease area is not noted as a visual impact in the DA; no adequate provision has been made to assess visual impact of this structure or to address adequate screening (see Section 1: A: PO4, PO12)
- The "Lake Effect" - there is a significant risk endemic and migratory birds in the Conservation Zone will be impacted by glare from the development during flyover resulting in injury and death. This effect is where a large solar array has the appearance from the air of a lake and birds dive towards it/ into it
- Light pollution due to security lights at night-time will impact nocturnal wildlife (see Appendix 4)

Additional comment:

The proposed renewable energy facility, battery storage and associated works would pose significant visual impact on the surrounding area, particularly on the properties located on Silkwood Road, of which three are owned by myself.

The applicant has put forward to utilise and 'thicken' existing roadside vegetation – this is unacceptable. Vegetation cannot be relied upon in the first instance nor in perpetuity to maintain a visual break (the nature of vegetation being that it takes years to establish and achieve the screening effect the applicant is relying on and that it is subject to disease, damage and decay). Furthermore, it is particularly concerning that screening is proposed only on the nature strip, over which I believe there is no means to enforce the applicant to maintain the health, number or visual effect of the trees. There is no effort to account for screening on the subject land, vegetation or otherwise.

The applicant, in assessing the visual impact of the proposal to the properties along Silkwood Road, refers primarily to the glint and glare from the panels. While this IS concerning, particularly with regard to "vegetation screening" aforementioned, there are a number of issues also not addressed:

The view of an 'industrial-scale' development (even if partially screened) to residents of Silkwood rd and visitors to the two accommodation houses on the road, will severely impact the 'Daintree Experience' for all. This will inevitably result in a diminished lifestyle experience

for residents and will significantly compromise the marketing, reviews, business model and business operations of the accommodation businesses. It is (sadly) ironic that a specifically designated use within Precinct 5 (low impact tourism enterprise) could potentially be shut down by the approval of an 'inconsistent use' development which is not the preferred model for electricity supply and for which there has not been sufficient or current research to demonstrate a community need.

Furthermore, access gates and driveways will create a huge break in any vegetation buffer and, given the commercial nature of the development, represent a much larger visual impact incongruent with the current farmland use of the lease area

The 1.8 - 2 metre high security fencing is also proposed to the perimeter of the project, presumably with associated signage. This is unacceptable in the context of the residential properties opposite who will have views of this, whether through thin vegetation, or accessways.

The above issues present an unreasonable detrimental impact, which cannot be appropriately managed with the project design. To achieve appropriate visual amenity, the project size (given the constraints of this site) would have to be substantially smaller, meeting setbacks of other development in the area, which are well in excess of 60m.

The site plan at a 1:1000 scale shows solar panels set back as little as 5m from the Lease boundary at Silkwood Road. If these are accurate this represents a significant visual impact and should not be approved given the normal 20m setback for infrastructure (see references in Appendix 1/ Sections A and B)

The proposal notes that there is no native vegetation removal proposed. Aerial imagery show several scattered trees throughout the site, and the plans indicate solar panels in these locations indicating they will require removal. There is no detail on the type of trees these are – whether they are native or not. While the PA contains reference to a biological audit of the site being prepared, it is not attached so assessing the biological, ecological, and avian significance of this site audit is not possible.

6. Noise and disturbance posed by construction and ongoing site operations

- Residents and visitors to 2 accommodation residences on Silkwood Road (Epiphyte B & B and Hibiscus Cottage) will be impacted during construction by:
 - Transport noises from trucks and vehicles transporting materials and infrastructure to the site
 - Use of tools, on-site generators and power tools
 - Dust from earthworks and construction activities
 - Traffic movements of heavy machinery accessing and operating on the development site
 - General traffic management on Silkwood Road during construction period
- Residents and visitors to 2 accommodation residences on Silkwood Road will be impacted during ongoing operation of the proposed development by noise pollution from general site operations, the use of backup generators during emergency outages and brushcutters/ tractor slashers which are designated for site maintenance

(See references in Appendix 1)

7. Fire and chemical hazard risks posed by high voltage system with hydrogen and LPG storage

- The proposed infrastructure/ technology (both battery and hydrogen as well as LPG storage) poses an unacceptable risk in relation to fire and lightning strikes which are common in tropical areas. Also, no consideration appears to have been given to ongoing environmental changes due to Climate Change including increasing risk of bushfires and lightning strikes, increasing temperatures and humidity (affecting both generation and storage plant and equipment) and risk identification and mitigation in terms of resident caretakers or security personnel. This is a potentially dangerous development and to leave it unstaffed many hours of the day/night is extremely unsafe.
- Insufficient risk assessment and mitigation measures have been undertaken by the applicant and there appears to be no fire safety or evacuation plan for on-site staff or nearby residents
- The HAZMAT Plan in the DA is insubstantial and inadequate given the nature and complexity of the proposed development (see both above dot points)
- Significant risks is posed by limited road access and exit for workers and guests of nearby accommodation providers in the case of a gas explosion, fire, chemical spill or any other kind of emergency requiring evacuation
- Chemical pollution/ drift which may result from weed control and insect management is likely to impact the lease area and neighbouring properties and has not been referenced or adequately assessed in the DA

Further to this, the experimental technology proposed by hydrogen power generation poses a significant risk of fire and chemical hazard to the site area and its nearby surroundings. As a local accommodation provider, it is unfathomable to me that the applicant has not provided comprehensive and detailed HAZCHEM and Dangerous Goods assessment as part of the DA and has not considered the real threat of fire or lightning strike in the leasehold area on Silkwood Road.

Appendix 2 - Non-alignment with overlay codes

(8.2.5) Hillslopes Overlay Code

PO1: AO1.1 - The development will negatively affect the visual amenity of the hillslope area, as it is visible from Silkwood Road.

PO2: AO2.1 - The proposed development is occurring on land with a gradient in excess of 16.6%, affecting visual amenity significantly.

PO2: AO2.3C - Measures for erosion control are not specified in the application.

PO2: AO2.5 - What are the building methods that will be put into place? Engineering diagrams are insufficient to demonstrate construction modalities that will be used to minimise modification of the natural terrain.

PO2: AO2.7B.ii - Reflective surfaces are proposed on the hillslope which will be seen from Silkwood Road.

PO2: AO2.9 - The proposal does not include adequate means of screening the development from the Silkwood Road entrance.

(8.2.6) Landscape Values Overlay Code

PO1A - Visible hillslopes.

PO1B - Visible from the road for next 3 years.

PO1C - Inadequate enhancements proposed.

PO1D - The proposed development does not incorporate a scale, design, height, position on site, construction material, or external finish that is compatible with landscape values.

PO1E - Proposed site does not avoid detrimental impact in regards to the design, layout etc.

PO1F - Proposed site does not meet the standard.

AO1.3 - Development proposal is insufficiently screened from the road.

AO1.5 - 90% of the proposed site includes reflective surfaces, contradicting the standard.

AO1.7 - Proposed development does not meet this standard.

(8.2.7) Natural Areas Overlay Code

PO1 - Development does not protect matters of environmental significance.

AO1.1 - The proposed development insufficiently meets this standard.

AO1.2 - The report has not been cited.

AO1.3 - The proposal does not explain how it will protect water quality, hydrology and biological process.

PO2. AO2.A - The design insufficiently minimise adverse impact on ecologically important areas. The area is not fully cleared (it has some trees).

AO2.B - Design does not preserve existing habitat.

AO2.D - Design does not sufficiently address impact towards hydrology and drainage patterns.

AO2.E - Design does not ensure that significant former habitats are protected.

AO2.F - Design does not incorporate measures that allow safe movements of fauna through the site.

PO6. - The development does not protect, nor enhance, ecological connectivity or habitat extent.

AO6.1 - The development does not retain native vegetation, but seeks to remove trees of significant ecological value.

AO6.2 - The development does not seek to rehabilitate native vegetation, except as screening.

AO6.3 - Insufficient surveying and reporting about adverse effects on native fauna, feeding, nesting, breeding and roosting, as well as native fauna movement. Also contradicts residents' sightings of tree kangaroos and cassowaries, etc.

PO7 - Development does not minimise disturbance to matters of state environmental significance.

Appendix 3 - The QLD Planning Act 2016

<https://www.legislation.qld.gov.au/view/pdf/inforce/current/act-2016-025>

While the proposed DA is not required to be assessed against the Act, the intent of the Act is to inform the development and application of assessment tools (Planning Schemes) utilised by local government authorities. It is important in the context of this objection, to draw your attention to the overall intent of the Queensland Planning Act 2016, which is an Act

providing for an efficient, effective, transparent, integrated, coordinated and accountable system of land use planning and development assessment to facilitate the achievement of ecological sustainability.

Advancing the purpose of this Act includes—

- (a) *following ethical decision-making processes that*
 - (i) *take account of short and long-term environmental effects of development at local, regional, State and wider levels; and*
 - (ii) *apply the precautionary principle, namely that the lack of full scientific certainty is not a reason for delaying taking a measure to prevent degradation of the environment if there are threats of serious or irreversible environmental damage; and*
 - (iii) *seek to provide for equity between present and future generations; and*
- (b) *providing opportunities for the community to be involved in making decisions; and*
- (c) *promoting the sustainable use of renewable and non-renewable natural resources, including biological, energy, extractive, land and water resources that contribute to economic development through employment creation and wealth generation; and*
- (d) *valuing, protecting and promoting Aboriginal and Torres Strait Islander knowledge, culture and tradition; and*
- (e) *conserving places of cultural heritage significance; and*
- (f) *providing for housing choice, diversity and affordability; and*
- (g) *encouraging investment, economic resilience and economic diversity; and*
- (h) *supplying infrastructure in a coordinated, efficient and orderly way; and*
- (i) *applying amenity, conservation, energy use, health and safety in the built environment in ways that are cost-effective and of public benefit; and*
- (j) *avoiding, if practicable, or otherwise minimising the adverse environmental effects of development (climate change, urban congestion or declining human health, for example).*

This highlights the need to take into consideration the broader sustainability of the project, as well as immediate and ongoing impacts, with the specific intent that development should facilitate ecological sustainability.

I submit that the proposal does not advance the purpose of the Act. See table on the following pages for a brief summary of the problematic nature of the proposal with regard to the Act, noting that this view is bolstered by a detailed assessment against the applicable zone/local plans which has been detailed previously.

Regarding matters set out in the QLD Planning Act 2016	
<p>a. follow ethical decision-making processes that</p> <p>(i) take account of short and long-term environmental effects of development at a local level</p>	<p>The Proposed DA will</p> <ul style="list-style-type: none"> encourage further development of currently undeveloped land in the Daintree which may otherwise be bought back under several current buy back schemes thus alienating land from possible future inclusion in the National Park. It is also likely to facilitate further development intensity in current development especially Tourism infrastructure resulting in larger visitor numbers and a bigger impact and human footprint on a very fragile ecosystem
<p>(ii) apply the precautionary principle, namely that the lack of full scientific certainty is not a reason for delaying taking a measure to prevent degradation of the environment if there are threats of serious or irreversible environmental damage;</p>	<p>Applying the Precautionary Principle in this case would require extensive further studies to determine and assess</p> <ul style="list-style-type: none"> accurate energy demand by sector, accurate current diesel generator use, potential environmental impacts of increased and intensified development If there are alternative more sustainable models for the proposal
<p>iii) seek to provide for equity between present and future generations;</p>	<p>This DA argues that residents will be provided with greater social equity as a result of this project, however this is an extremely narrow minded view. The proposal</p> <ul style="list-style-type: none"> Is limited in terms of the number of customers able to connect to the system, with potential to increase social inequality Is proposed to offset the consumption of diesel generator use in the Daintree - primarily used by large businesses, i.e. the project does NOT primarily service the needs of the local community or lead to greater social equity, it is a benefit primarily to business operators. Does not anticipate being able to cater to 'new customers' i.e. future generations Does not have scope to further expand the project, without greater incursion into land in the Conservation Zone, including all associated detrimental impacts on visual amenity, environment and sustainability
<p>b) providing opportunities for the community to be involved in making decisions</p>	<ul style="list-style-type: none"> Community involvement e.g. surveys, stakeholder involvement, consultation, has been extremely limited at no point since 2016 has the community been presented with alternative models for this proposal and responses sought

	<ul style="list-style-type: none"> • At no point have costings to consumers of alternate models been presented for public comment • Despite the most recent study (the KPMG Daintree Electricity Supply Study 2019) recommending an alternate supply option, this was not presented to the community for public comment or community members surveyed through a formal survey process
<i>c) promoting the sustainable use of renewable and non-renewable natural resources, including biological, energy, extractive, land and water resources that contribute to economic development through employment creation and wealth generation;</i>	<p>"Promoting the sustainable use of renewable and non-renewable natural energy resources..." in terms of this proposal would more appropriately be</p> <ul style="list-style-type: none"> • enhancing current Stand Alone Power Systems (SPS) with improved battery banks as an interim solution for the region while other potential long term solutions are investigated and potentially relevant technologies mature (as per the preferred option identified in the 2019 KPMG study) <p>Where the majority of residencies already have on-site PV systems, the availability of a micro-grid would encourage further electricity usage, beyond the current low-scale and environmentally sensitive levels of energy consumption.</p>
<i>(i) applying amenity, conservation, energy use, health and safety in the built environment in ways that are cost-effective and of public benefit</i>	<p>The proposed DA significantly fails the public benefit test in that is is</p> <ul style="list-style-type: none"> • inflexible (not future proofed for increased demand) • does not take into account stakeholder/residents' best interests (to be able to 'feed in' excess electricity production from currently in-place residential systems) • is not cost effective (refer KPMG report) and; • does not adequately assess the amenity, energy and conservation considerations

Appendix 4 - Douglas Shire Council Strategic Framework

The Douglas Shire Council Strategic Framework sets out several themes, elements and specific outcomes which set policy direction for the whole of the Planning Scheme and include several very important concepts with significant relevance to the project, including that:

- *environmental responsibility is fundamental to the community's future and will direct land use decision making*
- *the Shire's topography, creeks, rivers, coastlines and natural environment creates a strong sense of identity and of belonging to a place with a particular character and history. This sense of place enhances the quality of life for its residents, and is of great value to tourism*
- *those parts of the Shire in the Wet Tropics and Great Barrier Reef World Heritage Areas, and other areas of environmental value and ecological significance, are preserved and protected for nature conservation, landscape/scenic quality, biodiversity and habitat values."*
- *development north of the Daintree River is restricted to achieve low key, sustainable and self-sufficient outcomes and is carefully planned to conserve the scenic and ecological World Heritage values of the area.*
- *The unique environmental character of the Shire comprising internationally renowned landscapes, ecologically significant rainforest systems, sensitive coastal systems and areas of unsurpassed natural beauty, are maintained in association with sustainable development practices, which seek to minimise the effects of development on the natural environment.*
- *Development protects, maintains and enhances the region's Landscape values*
- *equitable access is provided to a complete range of services*

As this strategic vision feeds down into the more direct planning policy of the Zones and Codes, these matters have been addressed in detail previously. I strongly believe that the proposal is entirely inconsistent with the desired outcomes for the area. As this strategic direction is the foundation of the relevant planning policies, the matters it sets out should be at the forefront of decision making.

Additional notes:

The strategic framework sets out that *equitable access should be provided to a complete range of services*. This development proposal does not represent any step towards equitable access to services (i.e. electricity) as:

- It is limited in terms of the number of customers able to connect to the system, with potential to increase social inequality
- It is proposed to offset the consumption of diesel generator use in the Daintree - primarily used by large businesses, i.e. the project does NOT primarily service the needs of the local community or lead to greater social equity, it is a benefit primarily to large business operators
- Does not anticipate being able to cater to 'new customers' i.e. future generations
- Does not have scope to further expand the project, without greater incursion into land in the Conservation Zone, including all associated detrimental impacts on visual amenity, environment and sustainability

This concern is also noted with regard to the Queensland Planning Act 2016 (appendix 3).

Appendix 5 - Inadequacies in current DA and additional requirements for future proposals

Crucial deficiencies exist in the DA regarding environmental impact assessment and community consultation to justify the basis for the proposed development. As part of this objection, I request the following actions to be taken by the applicant in order to adequately address the specific needs of the Daintree Coastal community:

- Social research to justify the intervention proposed by the DA on Daintree residents and small businesses
- Evidence that recent documented, qualitative community consultations undertaken with a range of households in the Daintree area align with the proposed model and anticipated outcomes of the project
- Evidence of more substantial impact assessments according to applicable area overlays including:
 - Vegetation
 - Fauna
 - Drainage/irrigation
 - Chemical use in site maintenance
 - Parking and transport
 - Earthworks as part of construction
- An Environmental Management Plan which addresses not only the construction phase of the proposed development but also the ongoing operations of the solar farm/ energy utility and the potential short-term, mid-term and long-term impacts on the ecology of the Conservation Zone AND adjacent landholders and businesses.
- Evidence that the project proposal is the best choice of options evaluated in the most recent study into electricity provision for the Conservation zone of the DSC Planning Scheme (i.e. the 2019 KPMG Daintree Electricity Supply Study prepared for the Queensland Department of Natural Resources, Mines and Energy).