

PO Box 762 Mossman Qld 4873

sustainabilitydouglas@gmail.com

9 December 2023

The Hon Tanya Plibersek MP Minister for the Environment and Water

Via email: Minister.Plibersek@dcceew.gov.au

Dear Minister

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.

DSSG writes to express our disappointment at a recent social media post made on your behalf, expressing support for the Daintree Micro-grid, and to inform you of the facts about this project.

Please note that we have previously sent you some information about this project, by email dated July 20, 2022. We have also communicated with Minister Bowen on this issue.

Background

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. It now seems 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.

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 and the actual proponents of the project) by way of an appropriation immediately prior to the last Federal election.

The proposal

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 proposed micro-grid scheme would supply 240-volt power grid to established properties between Cow Bay and Cape Tribulation at a total cost of development estimated at \$80 million. The additional \$40 million is assumed to be forthcoming from outside investors, we have no evidence this is actually the case.

It would be powered by solar panels on cleared land in the Cow Bay area with lithium battery storage, a system to store hydrogen, a fuel cell generator to generate electricity from the stored hydrogen and an LNG generator backup. The distribution network would consist of 69 kms of 22,000 volt underground cable 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 is opposed to providing such subsidised reticulated power, as this will promote development in an area where conservation should be top priority. DSSG supports the findings of the Queensland Government in their 2019 assessment "The Daintree Electricity Supply Study¹, which concluded that upgrading standalone systems would be a fraction of the cost, more reliable and have far less direct and indirect environmental impact.

The \$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.

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. A survey of residents was conducted by a local 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.

We also know from past surveys that visitors here are seeking a pristine environment, not suburbia. Given that the Daintree Coast and Great Barrier Reef are foundational to the Shire's and regional tourism, their conservation and presentation are also critical to our economy.

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 problems

Aside from the obvious risk posed by such a development to the irreplaceable environmental values of the Daintree, this project is set to become a stranded asset.

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

No social licence

This project had no social licence, being developed without consultation and largely 'in secret'. Information about the project has been unavailable to the public and three FOI applications have been refused. Demand for this 'service' 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.

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.

There is no detail around the project 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 proposed Micro-grid system poses a high risk as a business model due to the potential low take-up by residents (and insufficient survey data has been gathered to estimate this), and importantly, 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.

Emissions reduction or greenwashing?

A key element of the rationale for this project 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 by 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.

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

It should also be noted that grid electricity reduces use constraints compared with Stand Alone Systems (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 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.

Social inequity

An inequitable approach to electricity access for residents/consumers has been proposed in the Development Application (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 by residents (currently generally used for emergency 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.

Summary

In summary, this is an unwanted project funded by a government that sought only to break the back of environmental protected areas in favour of development. The project was approved with no community consultation and largely kept secret. It is justified on flawed data that has been manipulated for the purpose of greenwashing. It is a technically limited project with no real prospect of return on investment and will likely become a stranded asset. Much better options are available for powering the Daintree.

This project has been presented as 'green/ sustainable' when in fact the reverse is true.

Please reconsider your overt support for this damaging proposal as it is damaging the reputation of your government.

Yours sincerely

Didge McDonald President

