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MEDIA RELEASE

Australian government refuses to provide information about Daintree Hydrogen Grid

An application under the Freedom of Information Act (FOI), to discover what has become of the Federal Government grant of \$990,150.00 to fund the design of a hydrogen powered electricity grid to a community group on the Daintree Coast, has been refused.

The grant from the Department of Industry, Science, Energy and Resources was awarded without any tender process or terms of reference, to the group calling itself Daintree Renewable Energy (DRE). The grant money was to prepare a 'shovel ready' proposal by July last year. No such proposals have been released.

However the Australian Government has since allocated \$19 million in this year's budget, to the proposed grid despite there being no report, grid plan, overall cost or estimate of demand for reticulated power.

The refusal follows the third attempt by the Douglas Shire Sustainability Group (DSSG), the region's conservation advocacy group, to discover what has happened to the grant. The third FOI application was rejected on the grounds that the documents "contain material obtained by the department in confidence" and that such a "disclosure would reveal commercially valuable information."

The first FOI request was deemed "too complicated" as it would have taken 'an unreasonable diversion of the Departments resources' and the applicants were asked to submit a "reduced scope" application.

The second more simplified application, as suggested by the Department, resulted in a two line response saying the grant was fully acquitted and that the money was granted to two unnamed contractors.

The \$19 million budget allocation for the grid has further alarmed both the conservation sector and the community, already concerned about the combined impacts of replacing the iconic Daintree Ferry with a bridge, upgrading the road through the Daintree Coast and now providing grid power.

"There has been no feasibility or environmental impact study, community survey or project or maintenance costing for the proposed grid or estimate of expected demand," said DSSG President, Didge McDonald.

McDonald said there seems to be a determination to use public money to develop the Daintree Coast when it is in urgent need of investment in conservation and presentation to manage the impacts of ongoing development, clearing, weeds, pests, forest fragmentation and tourism.

The attempt to replace the iconic Daintree River ferry with a bridge also backed by the local federal member Warren Entsch was defeated by the weight of public opinion. The failure of the Council to upgrade the ferry system to cope with holiday traffic and lengthy queues has led to widespread speculation that the council, with the support of the Federal member Warren Entsch, will return to the bridge proposal as the only means of alleviating queues.

“It is outrageous to spend public money supporting more development in this place when its conservation and presentation is lacking and should be the priority,” McDonald said “The Daintree Coast is also an iconic Australian tourism destination and we know people visit to experience nature and beauty at its best, not suburbia, or a thorough-fare to Cooktown”.

According to Professor Steve Turton, rainforest conservation expert, the Daintree Coast is seen as the “Jewel in the Crown” of the Wet Tropics World Heritage Area, itself rated as one of the world’s most irreplaceable conservation sites¹.

There have been calls for the provision of reticulated electricity for many years from some quarters, mainly from the tourism operators with bigger power demand from air conditioners and cold rooms. With the low cost of solar panels and improved battery systems most residential households have invested in stand-alone systems. Many do not want to be connected to grid power or to begin paying bills for what they now control themselves.

There has been no community survey of residents’ desire for grid power or willingness to pay, but McDonald said it is clear many people will not want to connect even if the power comes past their property. Furthermore with most households being a significant distance from the road, the cost of connection and legally required wiring upgrades is likely to be prohibitive.

The only available information on the proposed power station is that it will be driven by hydrogen made from solar power (presumably, on site).

In September 2019 the Queensland State government commissioned a report into the options for an improved electricity supply, ***The Daintree Electricity Supply Study²***, a multi criteria assessment of different electricity supply option for the Daintree (by KPMG and GH&D). The report analyses the environmental and cultural impact, the capital and maintenance costs, reliability and technical financial of a variety of options. It concludes that upgrading stand-alone systems have lower environmental and cultural impacts, would be more reliable and be a fraction of the cost of a reticulated system.

There are good reasons for this outcome according to Dr Hugh Spencer from the Cape Tribulation Tropical Research Station at Cape Tribulation³. “Direct storage of solar at the household in batteries is about 90% efficient, whereas hydrogen is about 35%,” Dr Spencer said. “Plus a big advantage of stand-alone is that a failure of one system has no effect on

¹ [Perspectives / Professor warns not to endanger World Heritage area | DouglasNews.Network](#)

² [daintree-electricity-supply-study-full.pdf \(epw.qld.gov.au\)](#)

³ [Perspectives / The reality of hydrogen in the Daintree | DouglasNews.Network](#)

others. As long as batteries are maintained, a well-designed, stand-alone system delivers reliable, low cost, high quality electricity.”

While the federal funded initiative calls the proposed reticulation a “microgrid” there is nothing micro about it. The 450 odd properties that could connect are spread over 40 kms of rugged, world heritage coastline broken by two steep coastal ranges and multiple rivers and streams fed by the area’s high rainfall.

Microgrids work well in communities where customers are close by, transmission distances short and generally use batteries as temporary storage because they are so efficient. Many of these communities already have the power line distribution network in place.

The drive for mains-style power primarily comes from a handful of tourism businesses that are struggling financially, one of their big costs being the supply of their own electricity. While most households have invested in stand-alone systems, most of the businesses have not and run a diesel generator most of or all the time.

With few exceptions, commercial operators running on diesel generators alone have no motivation to be energy efficient as the power is wasted if not used. Those few that have solar/battery stand-alone systems do not need or want connection to the grid. Several have recently gone public to express their satisfaction with their stand-alone solar/hydro systems and that they fear the development that grid electricity will bring.

Proponents of the grid power, believe a hydrogen based centralised power plant will have no emissions and will replace the polluting diesel engines many of the businesses depend on. Figures of how much diesel is consumed vary, proponents of the grid saying it is 4 million litres and that this is “polluting” the Daintree. However there is no evidence supporting that figure, some say it is closer to 1 million litres. Either way it is a small amount compared to the diesel and petrol consumption from the estimated 400,000 visitors a year who access the area in self-drives or busses.

Another important issue Dr Spencer says is that the Daintree Coast is a high rainfall, cloudy place, meaning more solar panels are needed whether stand alone or centralised system. But here’s the rub: Spencer says the full cycle efficiency of a stand alone solar/battery system is about 90% (i.e. storing the electricity from PV panels directly in batteries and then recovering the electricity) compared to a hydrogen based system which is 35% efficient at best. "The reason for this," says Dr Spencer, "is that the process of making hydrogen using solar power, storing it, then converting it back to electricity involves a lot of inefficiencies at each step of the process which multiply, that is 50% of 60% is 30%”

Besides stand-alone systems being considerably cheaper with vastly less environmental impact, the State government report said that the technology of electrolysing water to make Hydrogen gas and then storing it, is a high tech process that is yet to be proven at this scale and for the proposed purpose.

Add to that if hydrogen is to be made and used as an energy carrier, it only makes sense to do it in a place with high solar radiation, not in a wet and cloudy place like Daintree. The questions is, assuming that there is not enough local solar, because of cloudiness, where is the hydrogen going to come from? Are we going to see lines of trucks with tanks of compressed hydrogen being carried accross the Daintree River ferry?

Mc McDonald says that the conservation sector and local residents are so alarmed by the prospect of this grid power proposal, which would, if implemented, drive further

development and its associated environmental impacts. This will necessitate a strong response by the environmental and scientific communities in the form of a renewed campaign to preserve the Daintree's unique environment in the face of this renewed threat. "Daintree is well known and precious to all Australians, one of its icons, like the Great Barrier Reef and Uluru, and it is our view Australians, indeed the world, will want it conserved, not developed", said McDonald

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