

Queensland's Renewable Energy Environmental Disaster

Dominic Legoe 4 August 2023 **Part 1**

Queensland's well on the road for an environmental disaster courtesy of our 'Energy & Jobs Plan' (the Plan) and the 'REZ Roadmap'. These two documents were issued by the Department of Energy and Public Works (EPW) for the Queensland Government (in September 2022 and in July 2023). The Renewable Energy Zone (REZ) Roadmap document has a set feedback period which closes on 22nd September 2023. Given the clear environmental consequences of adopting EPW's Roadmap (and Plan) the feedback from the people of Queensland and Australia should be a very clear – **The Complete Rejection of this Roadmap. An alternative needs to be developed that has orders of magnitude lower environmental impact.**

This paper has been split into five separate sections (parts) so that it can adequately set out the many issues involved with EPW's Energy Transition Plan (& Roadmap). The fifth part 'David vs Goliath' brings in a political element and recommends a more complete Action Plan than the simple rejection as stated above. Some will say now that it is already too late, and that opportunity closed some time ago. I don't believe that, but I suspect that we are fast running out of time to change our whole Queensland energy approach. If you can preserve through the five sections, or at least read through most of them, then I believe that you will also come to the conclusion that an alternative just has to be found and a large protest message has to be sent to the Queensland Government in 2023.

Part 1: Queensland is to be the Graveyard State for Wind Farms

"Seeing the abundant, thriving population of Koalas at Lotus Creek was incredibly distressing, knowing their habitat will be cleared for a vast wind development. It's heartbreaking to know this ecocidal development has been approved." - Steven Nowakowski - Kuranda resident and environmentalist.

And, for the Chalumbin Wind Farm Proposal: Jirrbal woman Trish told Nick Cater: "It's my own Kakadu. Just the thought of it being taken away is devastating. It's very cruel to First Nation people."

1.1. Wind Farms Carpeting our Hills....

The former Chief Scientist Dr Alan Finkel introduces his new book outlining his vision of Australia's future, which is: *'Think forests of wind farms carpeting hills and cliffs from sea to sky. Think endless arrays of solar panels disappearing like a mirage into the desert. What we have now has to be scaled up by a factor of 20.'* It seems that our govt and the EPW department has fully adopted this mantra with their own twist to concentrate their site location. All the wind and solar farms (existing, proposed, under construction) is mapped online - <https://electricity-generation-map.epw.qld.gov.au/#results> . The site has good layering and filtering to focus on elements of interest. It shows that there are only seven operating wind farms (utility scale), **forty-three proposed and another five wind farms** being constructed in Qld as of late July 2023. The name plate capacity of the **Proposed & 'in Construction' wind farms is over 33,000 MW** whilst the existing wind farm capacity is about 1,000 MW.

Another one of their documents, the Qld 'SuperGrid Infrastructure Blueprint'- September 2022 document (part of the govt's Energy and Jobs Plan) states that there needs to be an allowance 'for a space of 200 hectares for each (4.5 MW) turbine'. Based on that rate, the land required for 33 GW of wind farms is 1.47 million hectares. For convenience that's **approximately 1.5 million ha.** The Blueprint goes on to state that more land will be required any hydrogen export industry but doesn't

set out the extra land required for any additional transmission lines. To put the 1.5 million ha area in context it is about the same size as a quarter of Tasmania..

And as for the land required for any solar farms that is additional to the wind farm's 1.5 million ha but in Queensland solar is not being proposed to nearly the same extent as wind and the land area required is less for solar than wind on a MW basis. Hence, for simplicity and impact purposes solar farms are primarily ignored in this paper and just included in general discussion.

1.2. The Pain is Mainly in the Great Dividing Range.

There are 48 proposed and in construction Queensland wind farm developments and nearly all of them are sited as **close as possible to the main existing 275 kV transmission line** that runs all the way up to Cairns. That way the proponents can reduce the cost to connect their farms to the grid. And most of these 48 wind farms are located on the very best high altitudinal areas where forests have escaped the ravages of clearing due to inaccessibility. It is these steep and inaccessible parts of the coastal ranges that have escaped 200 years of agriculture, urbanisation, industrialisation, and commercialisation and so are pristine wilderness areas. And given the remoteness of these areas nearly all of these wind farm site locations are out of sight and out of mind, not like developments on the flatter agricultural land further away from the ridgeline of the range. Most of the proposed wind farms (North of Gladstone) are located adjacent National Parks, conservation reserves and some in areas previously earmarked to be National Parks. An example area is shown in the photo below:



Photo 1: Rugged remote wilderness (Remnant Vegetation) to be cleared and fragmented for the massive Upper Burdekin wind farm complex. Photo Steven Nowakowski.

The Mt Emerald wind farm was built and commissioned in 2018 with the photo below showing how the turbines are sited on top or near the top of the range. The turbines for Mt Emerald are small in height compared to the more recent projects and proposals.



Photo 2: Mt Emerald Wind Farm

Steven Nowakowski has superimposed onto a Qld map the existing and proposed wind and solar farms, all shown in true scale. Steven's map use as a rough basis the EPW online site but in some cases the EPW site doesn't correspond well with other reliable information. For ease of viewing the many 'farm' sites Steven's map is split up into a number of sections with wind farms shown in red, solar in yellow and non-defined but renewable farms in pale green. While its noted the non-defined farm areas are principally wind farms. There are four of these maps with also a description for a limited number of these wind farms.

1.2.1 Cairns to Townsville:



Map 1: Townsville to Cairns

Going north to south the wind farms include the existing Mt Emerald, Operating in 2022- Kaban, proposed Chalumbin, and proposed Upper Burdekin Wind Farm. As little is known about the Karma Project (only recently announced) it is shown in pale green, but it is expected that it will be predominately a wind farm.

A) Mt Emerald Wind Farm

An aerial view of the 180 MW MT Emerald Wind Farm is shown below:



Photo 3: Mt Emerald Wind Farm

Originally the turbines were hailed as extra large but now seen as being on the smaller size with its largest turbines measuring 148.5m to the tip of the blade. The site area for this wind farm is not as biodiverse rich as most of the more recent wind farm sites. The photo does also show the typically characteristic pattern of haul roads and turbines which resembles the projection of an underground rabbit warren. Additionally, not shown there is other civil and electrical infrastructure with the roads required for the life of the facility (obvious reasons).

B) Kaban Wind Farm

The 157MW Kaban Green Power Hub has 28 wind turbines, reaching heights of 226m (blade tip) and was built and commissioned in 2022. A fairly early-stage photo of a number of foundations and a haulage road section is shown below.



Photo 4: Kaban Wind Farm

Note the wide road corridor width. A major issue with wind farm construction works to date has been the very poor waste management and erosion controls as practised for these site works. As seen in the photo the cut trees (logs) have been piled up and left on the side of the road. As can be seen in other later videos (in operation) these logs have just been left on site. An additional issue looks to be the lack of any real site supervision to control the works and ensure that proper erosion and run off management systems are put in place. The long-term ramifications of poor erosion control could have large future consequences for the large amount of runoff experienced in these northern regions. A particular runoff concern is the damage it is likely to cause to the Great Barrier Reef.

Furthermore, with the Kaban Wind Farm in operation, the nearby residents of Ravenshoe are being driven mad with sleep deprivation from the turbine's red flickering lights at night.

C) Chalumbin Wind Farm

The Chalumbin Wind Farm proposal is a 600 MW wind farm with heights of the blades tips up to 250m. It is being developed by a Korean company Ark Energy. There will now be 86 (revised from 94) wind turbines proposed to be installed along high-altitude ridgelines of Chalumbin, near Ravenshoe. The turbines will be sited on primarily remnant vegetation (95%), bordering the Wet Tropics World Heritage Area. Over 1000 hectares of high biodiversity habitat is proposed to be cleared. Refer photo below of the area:



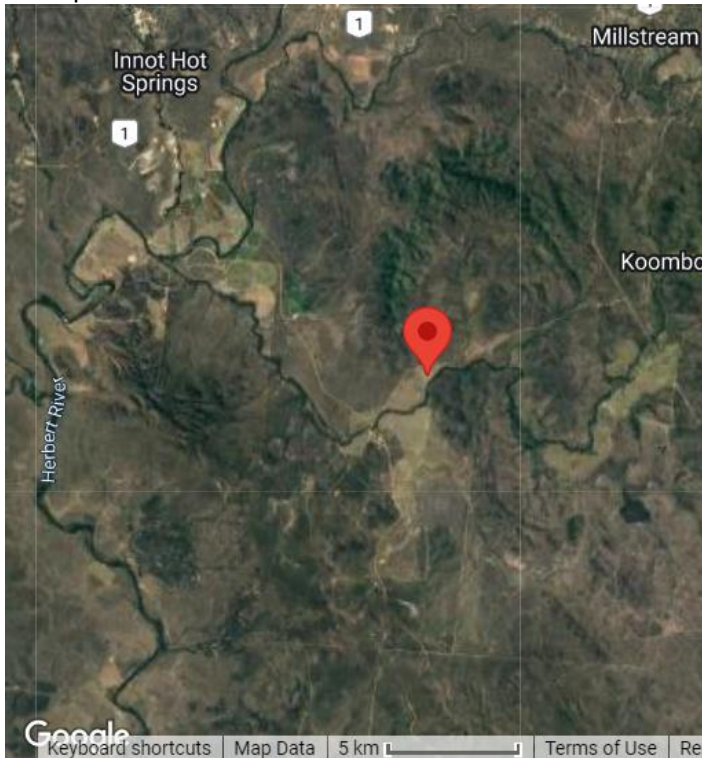
Photo 5: The Chalumbin region harbors iconic Aussie wildlife. Image: Kerry Trapnell

This site has significant remnant forest areas and is a site of importance for Jirrbal cultural history. This site is now the main wind farm proposal focus for local protest groups (Rainforest Reserves Australia) along with various Jirrbal people. A short Youtube video was posted recently – <https://www.youtube.com/watch?v=56Z9MXwvs0M&t=32s> And then there is a longer 31 minute video providing more background - [Chalumbin windfarm trampling on indigenous heritage - Thursday 20 July, 2023 - 2023 - ADH TV](#). With this video you may need to sign up to ADH (free) to watch it all the way through.

Soon after these video's were posted online a full-page advertisement (sheet) appeared on the Weekend Australian and also Qld local newspapers. This sheet stated it was authorised by one person from the Jirrbal peoples with quite a persuasive argument strongly supporting the development of the Chalumbin Wind Farm. There have now been other counter claims setting out very different views than what is stated in this full-page sheet. It has become quite controversial.

For one to form a final view on the matter, I believe that you need to ask yourself why a majority of the Jirrbal people would approve land clearance on their traditional land for this industrial farm that runs over 30km end to end.

There is the issue of **runoff and water quality**. As can be seen in the local google diagram below the Chalumbin wind farm is located close by to the Herbert river and its tributaries so its runoff will end up in the Herbert river and then flow out further south - just below Hinchinbrook island.



Map- Google Map of Chalumbin Site (Herbert river LHS)

I suspect that the average person wouldn't understand that the 33 GW of wind farms proposed in Qld will need an area that is equivalent to one sixth the size of the whole of South Korea. And it is all up to Tanya Plibersek now to make the final decision to proceed or amend or reject this proposal.

D) Upper Burdekin Wind Farm

There is another very large wind farm proposal awaiting Federal government approval being the Upper Burdekin Wind Farm. This development is majority owned by **Andrew Forrest's Windlab** group, but it has had '**Apple**' this year cancel its PPA following an uproar over the 'unavoidable significant residual impact' on local populations of koalas, Sharman's rock-wallabies, northern greater gliders and the critically endangered red goshawks. The development was originally 34 km long and 7 km wide, but the 136 turbines has now been reduced to [around 100](#) wind turbines.

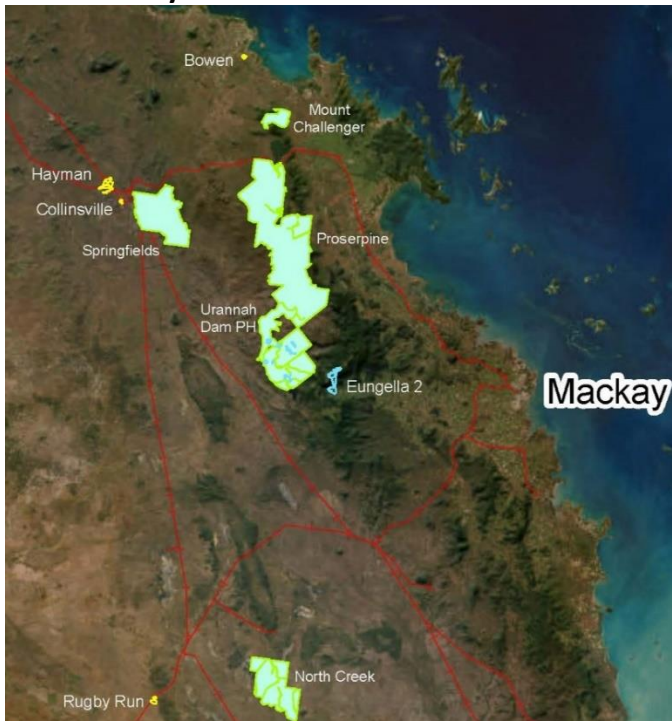
Sometime back the original Upper Burdekin footprint was overlaid onto a map of the coast extending from Edmonton in the south up to Palm Cove in the north, shown overpage:



Superimposed map over the Cairns region with the Original Upper Burdekin Wind Farm

As the Upper Burdekin turbines and access haul roads cling to the ridgelines the typical ‘rabbit warren’ footprint pattern is highlighted in this aerial view. But for the Upper Burdekin development instead of being sited over Cairns it is unfortunately sited on a state listed biodiversity corridor.

1.2.2 Mackay Area

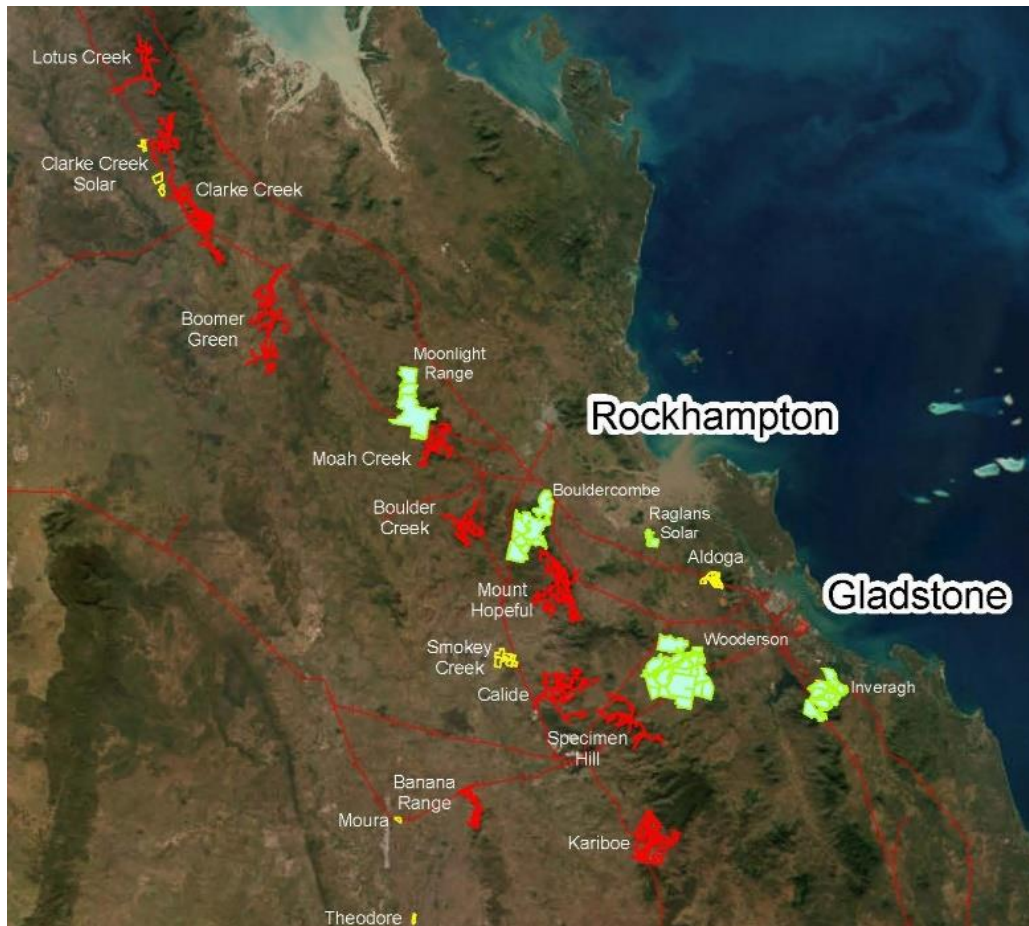


Map 2: Mackay and West

Unfortunately, the EPW site doesn't show these other projects appropriately so Steven has done the best he can with the information at hand. The projects are a mix of wind, solar, hydrogen, batteries, hydro and pumped hydro. The Urannah project has been effectively taken over by Copenhagen

Infrastructure Partners (CIP) Capricornia project. There are some very large energy hubs going into this area but at this stage their details are not known but they generally involve a large green hydrogen development proposal. It is likely that the significant seed funding (subsidies) to kick start these projects will make it likely the wind farm developments will happen up front. Further clarification on this area should be included in the Part 3 Paper on Pumped Hydro's.

1.2.3 Rockhampton – Gladstone Area



Map 3: Rockhampton - Gladstone

E) Lotus Creek Wind Farm

This proposed Wind Farm has got all of its approvals and is in preconstruction stage. The project will consist of up to 55 wind turbines with a maximum blade tip height of 230m. A ground truthing video of the site area is shown on the link here: <https://youtu.be/ohMZh9hIFBs>.

F) Clarke Creek Wind Farm

The 450-megawatt wind farm – which includes 100 turbines – is being built by Dr Forrest's private company, Squadron Energy. The project got govt approval in June 2018 followed by Federal govt EPBC approval later that year with significant restrictions on cleared areas for the recorded threatened species found on site.

In May 2023 the project's contractors on the site were told to stop work as Squadron Energy undertook a full "project management review" and in an unusual move took over as project manager from their subsidiary Windlab (bought from the govt a few years prior). Company sources deny the

shutdown was related to safety or cultural heritage, but questions remain. A month or so later work resumed at Clarke Creek and is still being constructed.

1.2.4 Brisbane North



Map 4: North West Brisbane

There are a number of large wind and solar projects proposed in this area including the Tuan Wind Farm proposal. But given the geographic spread of the proposals, the location near populated load centres, sites in already generally disturbed land, the overall impact of these proposals on the environment is seen to be a lot more manageable compared to the proposals further north.

2. Fast Track Land Clearing Laws and added by Compliant Federal Govt Assistance

To ensure environmental approval process for wind farms has minimal impediments and can be appropriately fast tracked, the Qld govt drafted and pushed through a special Act of Parliament (**State Code 23: Wind Farm Development**) which side steps all prudent EIS (EPBC) approval processes. Whilst this Act has been in force all concerns from community members and traditional owners have been ignored as Wind Farm Code 23 ensures that there is no capacity to enforce any form of consultation or review as long as no endangered species are officially recorded on that specific site. Consequently, it has allowed the govt to proceed and approve most of the wind farm proposals as quickly as possible and escape any real criticism or threat of legal action that could stop or delay the development. Wind farms are about the only development in the state that ensures that there is only minimal review required before wholesale land clearing is approved.

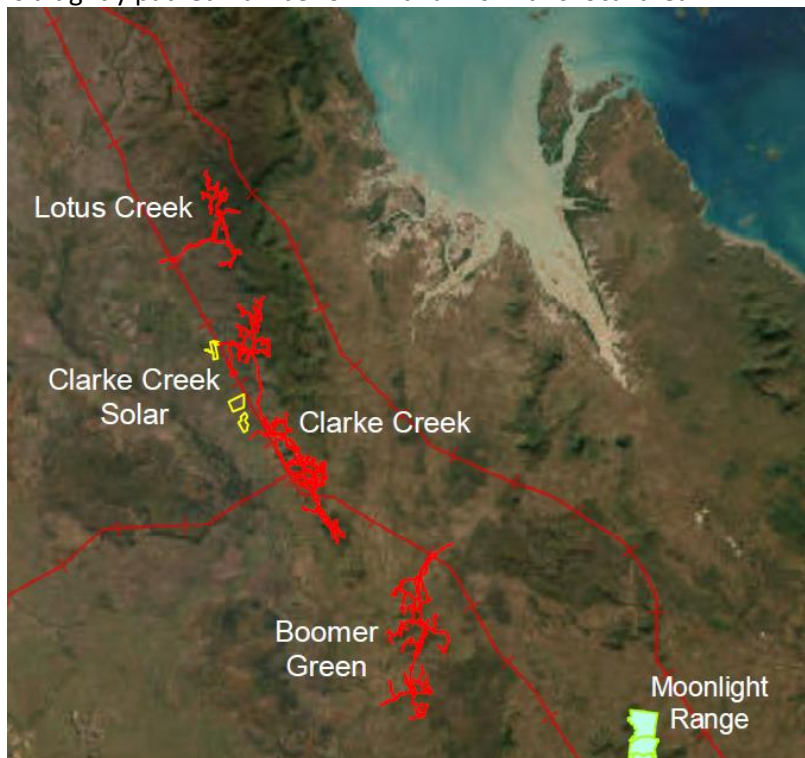
And since May 2022 the Qld govt has some major assistance to further fast-track renewable projects now that we have both Federal and State both Labor Party governments. As an example, the previous Federal Minister (Sussan Ley- Liberal not Labor) had rejected the Lotus Creek wind farm because of its potential impact on bushfire-ravaged koalas and other threatened species known in the area. But a few years later, in 2022 **the new Federal Labor Minister -Tanya Plibersek**, approved this same large wind farm (with its only difference to the original scheme being a minor reduction in

its footprint). Minister Plibersek now has to approve, reject or amend the two large Wind Farms, Upper Burdekin and Chalumbin. It is likely that Labor will put a lot of pressure on her to approve the two farms, and probably do so with some minor changes. We will see soon.

And as of early August 2023, the media reports that our Queensland government is likely to require wind farm developers to meet higher environmental and local impact tests to secure licences in a move to placate the increasingly vocal local anger towards these farms. Of course, any changes that do happen will be too late for Chalumbin and Upper Burdekin. And as for the next wave of proposals and acceptances it is strongly suspected that the wind farm developers will have successfully lobbied govt by that stage so that any real environmental changes of worth are most likely to be superficial at best.

And then there is another govt report that has just been released; the **Qld's Statewide Landcover and Trees Study (SLATS) report**, which uses satellite images to monitor changes in native vegetation cover in the state, showing there is still more nature being destroyed than regrown. It states, 'Once again 350,000 hectares of bush habitat for native wildlife has been bulldozed in Queensland...About half (47%) of this destruction has occurred in the Great Barrier Reef catchment area, adding to the pressure the world's largest coral reef already faces from climate change.' And 'More than 50,000 hectares (27,000 Gabbas) of the vegetation cleared was primary forest - habitat that has been around for many decades and can never be replaced. And 'Land clearing has been called the biggest threat to nature in Australia for many decades and yet it continues at a devastating pace, driving climate change, damaging soil, polluting waterways and robbing native animals of their homes'. And later on in the article it states, 'The Albanese Labor government has committed to the Glasgow Declaration to end deforestation...'. I wonder what will be stated when these organisation realise that a substantial portion of the 1.5 million ha will need to be cleared for wind farms? And that is just present-day accounting for current wind farm proposals.

And then what about the runoff and water quality issue in the GBR? As seen in the map below there is a tightly packed number of wind farms in this local area.



Map 5: North of Rockhampton

Once the Lotus Ck Wind Farm (approved and in pre-construction) area has been cleared then there will be a continuous cleared path all the way to coastline creating a large unimpeded conduit for the soil laden runoff to travel from the wind farm (top of the range) to the Great Barrier reef (GBR). This will have a significant negative impact on the health of the Great Barrier Reef. There is also the cumulative effect, once runoff from Lotus Creek is combined with the runoff from the other wind farm proposals that are very close by (Boomer Green, Clarke Creek etc) it is likely to create one of the **biggest mud slicks onto the reef in times of heavy rain**. And this is just reviewing this one coastal area.

Sediment loading onto the GBR has been recorded by the 2023 UNESCO World Heritage Committee GBR report (1 August 2023) as a primary cause of concern and real progress needs to be made on water quality despite the otherwise significant progress being made to improve the reef's health from other past issues. Currently, UNESCO's draft decision has stopped short of declaring the **GBR "in danger"** but this could easily turn around if any future report or review is unsatisfactory. The Green NGO's already are already claiming a false dawn for the reef with the potential for a return of bleaching given that we have now moved back into an El Nino cycle. One would have to think that the special treatment wind farms get for their massive land clearing can't persist for much longer. Once the fraud is exposed then all hell will break loose.

One can't help but be a cynic and wonder how good the Albanese and the Palaszczuk Labor govts will have to be to ensure they balance these conflicting issues and still come out to look honest and sensitive. Unfortunately for Australians the Greens and the Teals (the minor parties) are both determined to stay completely silent on issues relating to any real environmental destruction in case they spoil their climate change profile and 'Climate Action Now' mantra. Regardless, with the precedence set with Koban and Lotus Creek, both Labor govts will be bending over backwards to approve as many wind farms as they can before the next election. There will be no stopping the wind industry in its **rapid march to industrialise these Queensland wild areas**.

3. Part 1 Conclusion – A Totally Unacceptable Plan

The Queensland government (Qld govt) states that the draft 2023 [Queensland Renewable Energy Zone Roadmap](#) (the Roadmap – issued July 2023) is a well-coordinated and technically thorough plan to ensure lower power costs, extensive community benefits, improved environmental outcomes and at the same time ensuring the state meets its legislated clean energy targets (e.g., 70% by 2032). Unfortunately, the reality is very different as this Roadmap is just a fuzzy feelgood document that allows for the entire eastern section of Queensland to be opened up for **rapid and unchecked land clearing, habitat destruction and increasing the likelihood that UNESCO will decide to place the Great Barrier Reef on its in-DANGER listing**.

This Part 1 Paper has just focussed on a couple of environmental themes but hopefully the **full scale** of the destruction of our wilderness areas is plain to see. As for the many special, unique to the area, endangered and rare animals, and birds in these development areas no attempt has been made to summarise them as they are so extensive and so important.

The Qld govt (through EPW) has clearly set its path forward and is now effectively barricaded itself into its corner. Their promised laws to lock in renewable mandates will ensure that their timetable doesn't allow for any change or rethink as that would cause significant political consequences. There seems to be no other option for the Qld govt other than to blast their way through to get the final result they need. The question then is **How Can they be Stopped?**

As a first step my recommendation is that as many people as possible **REJECT outright the Qld REZ Roadmap** as part of their [feedback reply](#) (required to be completed before 22 September 2023). Make it all very clear, stating as follows – **The Complete Rejection of this Roadmap. An alternative needs to be developed that has orders of magnitude lower environmental impact.**

Additionally, every concerned citizen needs to read the website www.rainforestreserves.org.au and email Tanya Plibersek to say **NO to Chalumbin wind development**. Furthermore, there is a last-minute online appeal as the **Jirrbal community members** urgently need funding to go to Canberra and make their case to Minister Plibersek as the wind industry is mobilising their advertising and lobbying to ensure the development is approved.

The above community actions are likely to be just the first step on the road as there is just too much to lose for both sides of this fight. The outcome is very unsure at this stage. And as for nominating viable alternative energy approaches, of course they are out there if one is willing to be receptive. Yes, a lot more work needs to be done and laws changed etc, but these are matters that can be resolved in a decade (or so) while wilderness destruction can never be turned back to what it once was.

Part 1 of this paper finishes with the words of **Nyunggai Warren Mundine**—‘But the real problem with **Finkel’s vision** is most Australians won’t tolerate it. They won’t tolerate ongoing skyrocketing costs and winters of blackouts while they wait for some theoretically cheaper (but only if you ignore a lot of the costs that have to be paid for) electricity in decades to come. And they won’t tolerate a country carpeted with wind farms and solar panels filled with hazardous materials. They’ll regard this as environmental desecration and destruction on a grand scale. Because it is. I especially don’t believe the Aboriginal traditional owners who have rights over, and are custodians of, much of the land and sea that will be carpeted over will tolerate it either. People promoting this future seem to look at Australia’s remote country the same way the colonists looked at it in the 1800s: a vast expanse of nothing that’s available for their own pet projects. It’s not.’

Part 2 to 5 of this paper will follow in time, but no firm commitments given on when. Thanks.