Submission No 27

INQUIRY INTO IMPACT OF RENEWABLE ENERGY ZONES (REZ) ON RURAL AND REGIONAL COMMUNITIES AND INDUSTRIES IN NEW SOUTH WALES

Organisation: Save Our Surroundings (SOS)

Date Received: 28 January 2025

Save Our Surroundings (SOS)

Dear Committee Members
SOS submission to the **Inquiry into the impact of Renewable Energy Zones (REZ) on rural and regional communities and industries in New South Wales**
https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=3065#tab-members

Save Our Surroundings (SOS) welcomes the opportunity to make a submission to this inquiry into the impact of Renewable Energy Zones on rural and regional communities.

We trust that each Committee member will read all of our submission, including the attchments. Do not leave it to your gate-keepers. Otherwise you may continue into the future in **ignorance.**

Introduction

The topic is large, as the Committee's terms of reference indicates. But the negative impacts on rural and regional communities is much larger. SOS will only attempt to give a flavour of the extent of the adverse impacts of REZs on rural and regional communities.

Through our interaction with many dozens of other community groups opposing the adverse affects of **Renewables** (hereafter referred to as **Ruinables, which only includes wind and solar electricity generation and their necessary supporting infrastructure of new transmission lines, battery energy storage systems and pumped hydro works**) we believe we will present many of the concerns of rural and regional groups across NSW and beyond.

In Gulgong NSW, the centre of the Central West Orana Renewable Energy Zone (CWO REZ), in 2019 local residents opposed a proposed solar works near their town. The Western Region Joint Planning Panel rejected the project 4-0. Residents opposing the Burrundulla solar works just south of Mudgee asked the successful Gulgong residents group (Save Our Surroundings) to assist them, which we did. The Panel rejected the Burrundulla proposal 5-0. The appeal by the developer to the Land and Environment Court resulted in the project again being rejected. Facts matter.

These successes in 2019-20 resulted in Save Our Surroundings (SOS) growing to include dozens of community groups across multiple states. All oppose the destruction of their local environments, as well as individual members experiencing: damaged relations with family members, friends and neighbours; anxiety, stressl and physical health issues; reduced access to already inadequate regional services; intimidation, bullying, doxing, cancellation and media bans; damage to roads; staffing shortages; facts, evidence and concerns often being ignored by developers, our local MPs, Councillors, the Planning Department and the Independent Planning Commission.

SOS is run by volunteers and accepts no money from anyone and is apolitical. We are a community-based organisation that is part of network of groups of like-minded concerned and impacted citizens that are directly affected by the proliferation of industrial scale weather-dependent “renewables” and their negative impacts on local and global environments and communities. The independently run groups span multiple States and share and distribute information, research and experiences with each other and other parties.

Much of our submission is centred on the experiences of communities within the CWO REZ, but applies in all REZs and beyond. The map in Figure 1 shows that just Gulgong-Dunedoo have over 30 existing, under construction, approved and proposed **Ruinables** projects. Many of these projects are just a few kilometres from Gulgong and the massive sites, each covering 13km2 to 74km2 of agricultural land, are visible to residents. The CWO is the designated pilot REZ. It is representative of other REZs and the impacts on the communities in them. There are dozens more large-scale

industrial **Ruinables** projects (SSD & SSI) in the rest of the CWO REZ, including around Wellington, Mudgee, Burrendong Dam, North of Dunedoo, Ulan and Wollar.

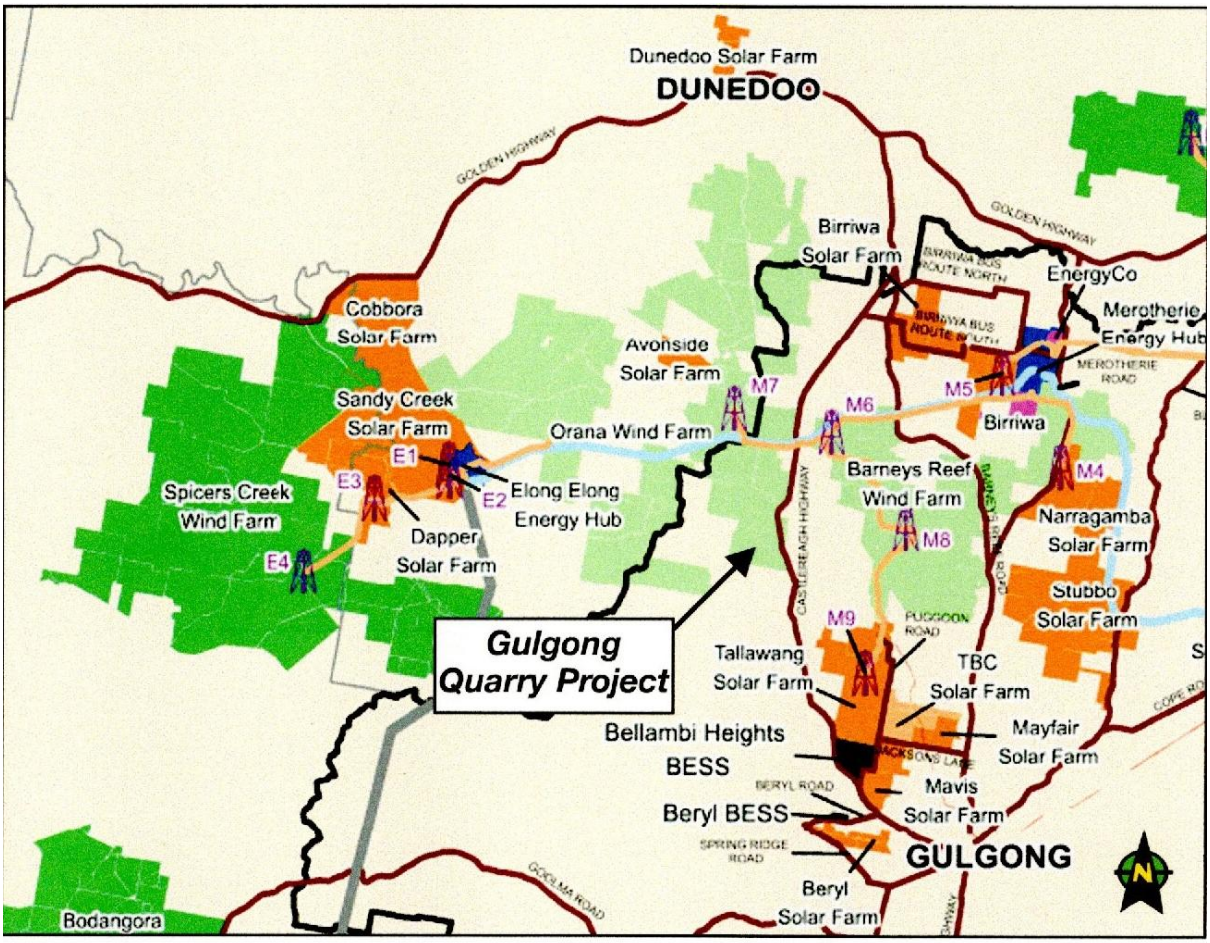


FIGURE 1: The proposed Gulgong Quarry Project site is strategically located in the northern part of the Mid-Western Regional Council area, proximate to renewable energy State Significant Development projects

(Source: excerpt Mid-Western Regional Council online map July 2024 'Proposed State Significant Development')

Every one of these State Significant projects goes through the planning cycle, which involves:

- a Developer making secret agreements with host land holders
- a Developer making secret agreements with neighbours of host land holders
- Initial contact with local residents through brochures, website, stands and advertising
- Sponsoring of local groups or events to gain some support from community groups
- Conducting carefully managed drop-in 'information' sessions where no group discussion or questioning can occur, not that honest answers are provided very often in any case
- Issue of an Environmental Impact Statement (EIS) of, typically, thousands of pages that often contain errors, inconsistencies, untruths, exaggerations and unsubstantiated assertions or omit relevant information
- a four-week EIS exhibition period where interested parties can lodge a submission
- a response from the Developer to issues raised in submissions; by amalgamating concerns under generic headings the developers omissions, unsubstantiated claims, etc. are ignored
- if 50 or more unique submissions were received, the proposal is referred to the Independent Planning Commission (IPC), otherwise recommended by the Planning Authority; typically 90% or more of submissions object to the project, a few may support it

and the rest are just comments; thus no project has community consent or a social licence yet they get approved anyway
- many of the proposals also being referred to the EPBC as most proposals involve some destruction of endangered or threatened habits and species
- the Planning Authority recommending the project, if 50 objections were not received, to the Minister, who, to date, has always given approval
- If referred to the IPC for determination, public hearings may be held and written submissions made before the project is approved (all so far)
- If a community group objects to the Minister's or IPC's decision it can be appealed to the Land and Environment Court at great expense to the community group; two cases have been initiated to date
- Once a project is approved, after some months various detailed design, negotiations with Council on Voluntary Payments, fire, traffic, accommodation, etc. management plans will be finalised
- after months or years the construction will start and the communities become aware of the true impact of the project on their roads, services, availability of trades, etc.

For each proposal, which usually span years from awareness to operation, residents are expected to be involved. There can be multiple EIS exhibitions closing in the same month. Residents are impacted to different degrees depending on direct effects, indirect effects, extent of involvement and extent of knowledge.

Planning Process Impacts

Direct effects on those that want to know detail or object to the development include:
- conflicts with hosts, family, friends and others
- days of diversion from other activities, such as farming, to read marketing information, attend sessions and meetings, write emails, prepare and lodge submissions, read developer's responses, raise concerns with Planning, review Planning recommendations, register to speak, prepare for and attend hearings, prepare and submit post hearing submissions
- preparing for and attending group and protest meetings
- communicating and supporting other communities
- communicating with media and politicians
- for some, dealing with intimidation, doxing, media bans, email account locking,
- anxiety, stress and loss of sleep
- emotions of unfairness, frustration, disappointment, abandonment, anger, depression
- deep concern for the damage already being done to Australia from the transition to **Ruinables**; escalating electricity prices and environmental destruction on a grand scale
- health effects of the above, including physical and mental stress issues.
- selling their home, especially where it abuts or overlooks a **Ruinables** works.

Gulgong, a historic town of 2700 people, is yet to feel the full impacts of the approved **Ruinables** projects. By 2027, if most of the projects proceed, we can expect over 7000 imported workers, who will be housed in multiple mainly self-contained labour camps, some just a few kilometres from town. Camp sizes range from 150 to 1800 workers.

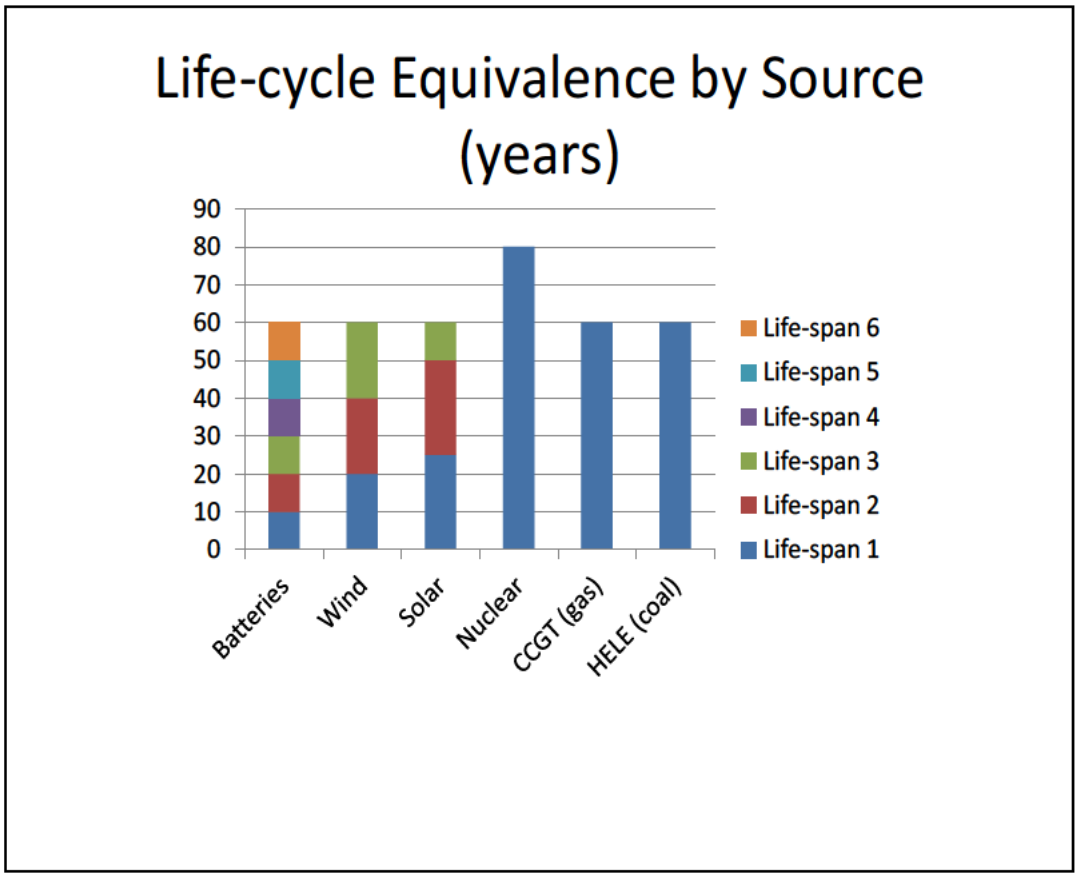
The implications are wide-ranging, especially for our farming and mining culture, and includes increased traffic congestion, increased demands on medical services (in 2019 three doctors and a hospital, today none; and Mudgee Medical Centre is not taking on new patients and wait times to see a GP is two or more months); non-availability of trades people, increased crime, increased road accidents, reduced accommodation availability, falling numbers of RFS and charity volunteers, etc.

The extent that the 400 construction workers for a current 18km2 solar and BESS works site about 10kms north of Gulgong has contributed to our decline in services, etc. we don't fully know. However, two local roads had to be resurfaced after months of water tankers using them, contrary to the assurances they would not do so. Two B-Double trucks carrying solar panels overturned. What happened to these shattered toxic panels? Traffic congestion in town has increased and non-local, less patient, drivers fail to give way in Gulgong's narrow streets.

Capacity factor and capacity equivalence

To understand the huge negative impact that intermittent **Ruinables** projects have on rural and regional communities it is necessary to fully understand capacity factors and economic life-spans. In addition, SOS has developed the concept of capacity equivalence. The former is explained in the 'Wind and Solar Electricity Generation Are the Answer. Seriously? November 2022' paper, page 5. The latter is covered in the paper 'Wind and Solar Works Resource Requirements are Unsustainable", page 3.

The following chart graphically displays the relative life-spans of various modern sources of electricity generation. Each life cycle requires more resources and costs to replace their output and results in more waste each time.



Created by SOS

The capacity equivalence (Ce) of solar and wind electricity generating works compared to a 400MW HELE is 56.6MW for solar and 53.5MW for wind. That is, to match the electricity output of a 400MW HELE plant at least seven or more 400MW wind and solar works have to be built as well their required high voltage, energy storage and other infrastructure. This is unsustainable!

Both the capacity factor and the capacity equivalence measure explain why **Ruinables** consume so much more land and resources than base-load power stations, such as modern High Efficiency Low Emissions (HELE) coal fired plants, Combined Cycle Gas Turbine (CCGT) plants and nuclear reactor plants (large and emerging small modular reactors).

CWO REZ as the Pilot REZ

The CWO REZ was designated as the pilot REZ in 2020. The initial target of 3.0 gigawatts (GW) of installed wind and solar works capacity for the CWO REZ was increased to 4.5GW and then 6.0GW and recently a suggested 7.7GW. Using a 7GW(7000MW) capacity then 17.5 x 400MW solar and/or wind works would be suggested. The land required would appear to be somewhere between 236km2 if all solar and 1,295km2 if all wind. Assuming a 50/50 mix at least 765km2 of land is needed. More land will be needed to provide backup for when the short-lived, intermittent, weather-dependent and weather vulnerable wind and solar works cannot meet electricity demand.

However, to generate the same amount of electricity as 7GW of **Ruinables**, Just one 1GW (1,000MW) HELE or nuclear power plant is required. Agricultural and wildlife lands or new transmission lines would not be required for the small footprint of a HELE or nuclear plant. Other REZs will have similar results. Focussing on capacity rather than electricity produced has led to very poor energy policy decisions.

In addition, the substantial upfront emissions and post commissioning emissions are never provided or considered in the planning process for **Ruinables**, but are for mines and now all businesses with 100 or more employees. Our analysis of just solar panels indicates that Chinese manufactured panels may never offset their embedded CO2 emissions, let alone the whole project life-cycle. (refer attachment SOS paper 'Chinese Manufactured PV Solar Panels Increase GHG Emissions ').

We hope the Committee can now appreciate the scale of **Ruinables** developments that will cover so much agricultural land and native bush. The impacts will include reduced future food production, increased food costs, diminished country lifestyle, reduced local population, net job losses, transformed landscape character, loss of tourism appeal, increased catastrophic fire risk, near impossible fire-fighting capability, loss of local wildlife, reduced access to services, increased costs to ratepayers, increased trauma of residents, concentration of risks to the electricity system, diversion of resources, ever increasing subsidies and, escalating retail electricity prices. All of which will be avoided with a proper design of a future electricity system.

From our six years of research, one has to conclude that it makes no sense for our governments to throw billions of dollars a year at an emissions creating, very costly, net job destroying, unsafe, environmentally damaging, fossil fuel dependent, unreliable, unsustainable, and unprofitable renewables industry for which virtually no benefit does or will flow to Australia. (refer attachment SOS paper 'Wind and Solar Electricity Generation are the Answer. Seriously? November 2022')

Some Quotes from Rural Residents

Just a few examples of the depth of feeling , stress and anxiety suffered by residents in various rural communities when an industrial solar works is proposed or approved near their town are:

- *"Hi [name of addressee], I'm gutted! We lost! So unfair. Are you aware of any appeal process we may have, or is that it? In anger, [Name of sender]*", Solar works approved in Orange December 2020,

- "gut-wrenching ...", says another when a solar works was approved near Jindera NSW, December 2020

- The renewables energy project *"had a lot of resistance. They are worn out....don't even want to talk about it"*. Wagga Wagga resident.

- "*I'm so disgusted [name] with how this government, all governments are allowing this to happen to our pristine, countryside our environment and Australians in general*" , Mudgee resident, January 2021 following lodgement of Stubbo EIS.

- *The only positive thing I have considered will come out of this significantly stressful situation is that I will have found some sensible, thoughtful and lovely people in the same situation that are prepared to support each other in need. Thanks for reaching out."* Resident impacted by Culcairn Solar and loss of agricultural land. January 2021

- *'Are the Committee members aware of the extra risks that rural Australians face from "renewables"? Are they aware of the increasing loss of Australia's 6% of arable land? Are they aware of the disruptions to rural lives, their mental health, their feelings of helplessness because of being ignored by politicians and bureaucrats as they watch their surroundings and towns being transformed into industrial waste land? Are they aware of the loss of wildlife habitats and wildlife that do thrive on grazing, crop and bushland ...?*' (extract from a Gulgong resident's submission to: Inquiry into Australia's Transition to a Green Energy Superpower)

Impacts of REZs on Consumers

The claim that wind and solar electricity generation is the cheapest method to supply Australia with electrical energy is not supported by the facts, and actually the opposite is true based on real world experiences. The **Levelised Cost of Electricity (LCOE)** measure used in the popular press and by most governments is misleading.

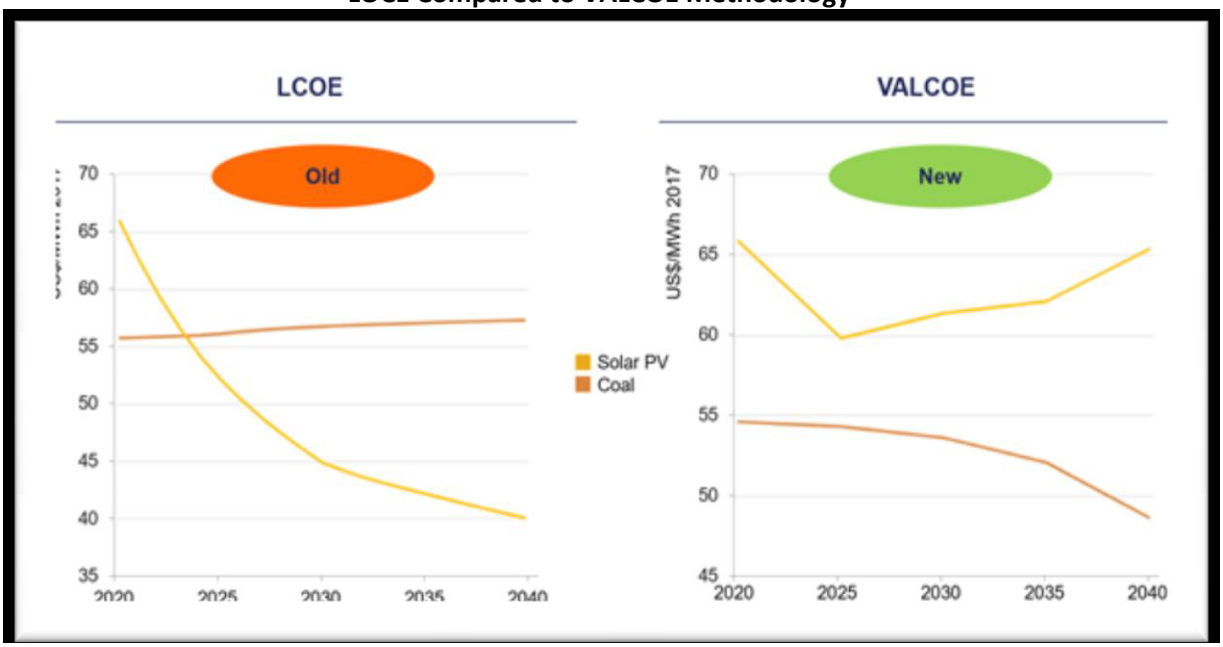
The still incomplete, but better, **Value-Adjusted LCOE (VALCOE)** from the **IEA** was first published in 2019. In January 2020 the prestigious Institute of Energy Economics Japan (IEEJ) published its 280-page 'IEEJ Energy Outlook 2020' and raised concerns about renewables' rising unaccounted-for integration costs, concluding that LCOE is not capable of capturing the true cost of wind and solar. Comparisons of alternate costs using VALCOE helps explain why electricity systems that have significant weather-dependent renewables in their mix always result in higher electricity prices than those that don't.
[ref: Oct 2020 Dr Lars Schernikau "The truth behind renewable energy"; www.iea.org/data-and-statistics/charts/levelised-cost-of-value-adjusted-lcoe-valcoe-for-solar-pv-and-coal-fired-power-plants-in-india-in-the-new-policies-scenario-2020-2040]

SOS has always advocated for a whole of system costing approach. This is based on sound management accounting and engineering principles. Our preferred approach would be, for say a 60 years' timeframe, to:

- initially cost the as-is now system to create a baseline
- then cost like for like replacements, that is replace old coal-fired plants with modern HELE plants and old gas-fired plants with modern CCGT plants
- then add nuclear plants as replacements for old coal-fired plants and HELE plants
- then add in more wind and solar e.g. for remote locations and rooftop solar

The work of EPC Consulting and of Frontier Economics are on a whole of system approach, but with restrictions. The CSIRO and AEMO use LOCE. The IEA Chart below shows using LOCE leads to erroneous conclusions on the future direction of electricity prices. Obviously, as experienced by every jurisdiction in the world, more **Ruinables** in the system must result in higher electricity prices.

LOCE Compared to VALCOE Methodology



IEA chart

Supporting attachments

Our detailed evidence-based bulletins, research papers, hundreds of submissions and appearances as witnesses to two Federal Parliamentary enquiries and multiple presentations to planning panels and IPCN hearings attest to the quality of our research, analysis and evidence. Examples of some of these that are relevant to this enquiry are included in the attachments, namely.

- What Save Our Surroundings has done this year (27 June 2021)
- Wind and Solar Electricity Generation Are the Answer. Seriously? November 2022
- Chinese Manufactured PV Solar Panels Increase GHG Emissions (23/11/23)
- Wind and Solar Works Resource Requirements are Unsustainable (2/01/24)
- Gulgong Gossip monthly magazine article March 2024 (Labour Camps)
- Gulgong Gossip monthly magazine article July 2024 (Fire Risks)
- Gulgong Gossip monthly magazine article November 2024 (Who Benefits)

Conclusion

SOS is confident in our analyses. Our Initial papers of 2019-20 were largely based on overseas experiences, some original thinking and our predictions of what would occur in Australia as the transition proceeded. Subsequent papers drew on Australian experiences and data. As time moved on our early analysis and predictions were supported by actual Australian experience.

In our research paper of over four years ago, 'Wind and Solar Electricity Generation Are the Answer. Seriously? November 2020', our closing paragraphs on page 46 were:

'Why do our governments ignore the obvious solutions to achieve their stated policies of CO2 reduction, electricity price reductions and job increases? Why do they use CO2 emissions reductions as an excuse when their actions will not affect the climate? Why do they pursue energy

policies that reduce our economic activity? Why do they risk the safety of its regional communities? Why do they support large-scale destruction of regional and overseas environments? Why do they think that 100% duplication of weather-dependent renewables at great cost makes economic sense?

By reading this research paper they can no longer continue to proceed on their current course in ignorance."

We trust that each Committee member will read all of our submission, including the attachments. Do not leave it to your gate-keepers to provide a half-page dot point summary. Otherwise, you may continue into the future in **ignorance.**

Should the Committee require more information or wish to meet with SOS representatives, please make a request via email to saveoursurroundings@outlook.com.

Regards

Save Our Surroundings (SOS)