Planning (Social Impact and Community Benefit) and Other Legislation Amendment Bill 2025

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Sı	ubmitted by:	Save Our Surroundings Bundaberg
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From: lynette lablack

Sent: Tuesday, 20 May 2025 8:19 PM

To: Information (DSD) <<u>Info@dsdi.qld.gov.au</u>>; Renewables Planning <<u>renewablesplanning@dsdilgp.qld.gov.au</u>>

Subject: Planning (Social Impact and Community Benefit) and Other Legislation Amendment Bill 2025

Dear State Development Infrastructure and Works Committee,

Would you please accept my emailed Submission as I was unable to access the online Submission form today.

My Submission is for Publication under 'Save Our Surroundings Bundaberg.' Thank you.

Yours Sincerely, **'Save Our Surroundings Bundaberg'** Lynette LaBlack

Ph:		

<u>Planning (Social Impact and Community Benefit) and Other Legislation Amendment</u> <u>Bill 2025</u>

Considering Approvals of Wind/Solar Electricity Generating Works & Battery Energy Storage Systems by the previous Government have shown 'a lack of care that demonstrates reckless disregard for the safety or lives of others, which is so great it appears to be a conscious violation of other people's rights to safety' & were based on "confection made up evidence - so lacking in integrity that no weight can be placed on it' (Federal Court Judge Justice Natalie Charlesworth - NT Santos Barossa Gas deal - dismissed EDO Appeal - 15/1/24)

As a deeply concerned food producer with children & grandchildren reliant on our uncontaminated, limited, irreplaceable, essential, life-sustaining soil & water, it is totally unjust, heartbreaking & indeed terrifying that such ECOCIDAL, Energy Poverty infrastructure has been forced midst our community Against Our Will - With No Consent - With No Social Licence by an ideologically driven, deceitful Government without ever consulting at all with my family - despite 500,000 heavy-metal leaching, PFOS coated, unethical, Slave Labour Supply Chain sourced Solar panels beginning only 20 metres south of our Food growing land - when it is absolutely clear that there is <u>ALL PAIN & NO GAIN FOR AUSTRALIA AS ENERGY POVERTY</u> <u>RENEWABLES ARE THE ASBESTOS OF THE FUTURE!</u>

Even the gullible Hosts & ultimately Councils are finally waking up to the harsh reality that Decommissioning/Remediation is their responsibility & will never be affordable, with parasitic 'Renewable' Developers now disingenuously twisting their Applications due to increased community awareness of the Host's liabilities eg. Mayfair Solar EIS - planned in the Central West NSW:-

Why are Elgin now adding

"or another land use as agreed between the landholder and the project owner."

Similarly others state

"or another land use as agreed between the landholder and the regulator."

This is an obvious Admission that these Applicants know this land will be contaminated forever!

In the past, Approving Bodies have completely failed to do their Due Diligence instead, inflicting Moral Hazard on Local Regulatory Authorities & Communities by Approving Risky 'Renewable' Experiments by just trusting the deceitful, predatory Developers.

Of course, they have NO intention whatsoever of removing this toxic JUNK & deceitful ideological bureaucrats know full well that the contaminated Solar/Wind/BESS Wasteland they are determined to cause, will never be returned to its inherent capability - "pre-existing land use."

['Additionally, the project is expected to have minimal impacts on long term agricultural productivity of the site. Once the project is decommissioned, land on the study area will be rehabilitated and returned to its pre-existing land use OR ANOTHER LAND USE AS AGREED BETWEEN THE LANDHOLDER AND THE PROJECT OWNER.']

https://www.planningportal.nsw.gov.au/major-projects/projects/mayfair-solar-farm

In view of this alarming scenario, please find a variety of helpful resolutions & various, credible research links to consider in properly assessing these inferior, contaminating, unethical, CCP reliant, insecure, part-time energy components.

Mining and Energy Union ALP State Conference Platform Resolutions and Amendments.

1. Insert 2.54 and renumber accordingly

Amendment Text: <u>Labor will ensure that energy infrastructure and the production of</u> <u>wind and solar infrastructure, comply and adhere to the Modern Slavery Act, with a</u> <u>focus on international imports</u>.

2. Delete 2.64 and replace 2.64 with the following

Amendment Text:

Labor supports an independent scientific body to review, examine and investigate resource industries and large scale power generation impacts, including industrial solar, battery and wind installations at every stage of operation, i.e. planning, operational and rehabilitation.

5. Insert 5.105 and renumber accordingly

Amendment Text:

Labor <u>recognises the critical use of metallurgical coal in the creation of steel</u>, <u>manufacturing, building materials and infrastructure</u>. Labor will follow other jurisdictions such as the European Union in <u>declaring metallurgical coal a critical</u> <u>mineral</u>. NSW Labor will work with a federal Labor government in advocating for meteorological coal as part of the Australian critical minerals strategy.

INDUSTRIALISED WIND/SOLAR ELECTRICITY GENERATING WORKS & BATTERY ENERGY STORAGE SYSTEMS DEFY:

• Every Aspect of the National Electricity Law Objective

•All Principles of Ecologically Sustainable Development

•Australian and International Standards.

•National Koala Recovery Plan

•Genuine Protection of Ecology & Biodiversity

•Australian Drinking Water Guidelines

- Stockholm Convention
- The WHO
- •Commonwealth PFAS Ban
- Modern Slavery Act
- Social Licence

LPA Accreditation

Paris Agreement

****NATIONAL ELECTRICITY LAW OBJECTIVE**

'The objective of the National Electricity Law is to promote efficient investment in, & efficient operation and use of, electricity services for the long term interests of consumers with respect to:-

(a) price, quality, safety, reliability and security of supply of electricity; and

(b) the reliability, safety and security of the national electricity system; and

(c) the achievement of targets set by a participating jurisdiction

(i) for reducing Australia's greenhouse gas emissions; or

(ii) that are likely to contribute to reducing Australia's greenhouse gas emissions.'

AEMO, AER, AEMC, Energy Ministers, Powerlink, Ergon Energy & everyone in 'authority', place primacy on emissions target rather than the other requirements of the NEL.

The emissions requirement was only added to the NEL in Sep 2023, and the NSW Emissions Reduction Act 2023 was only passed in Nov 23 (other states were similarly tardy to legislate any targets), - so on what basis did any Gov act prior to that to impose all this on us? Yet they all did, and still emphasise emissions over other objectives.

NEL is made in the SA Parliament, and in the 2nd reading, the Minister there also reiterated that ALL OBJECTIVES ARE EQUAL.

The Four Principles of Ecologically Sustainable Development (ESD) are:

• The Precautionary Principle: When there is a threat of serious environmental damage, action should be taken to prevent it, even if there is not full scientific

certainty.

• Intergenerational Equity: The current generation should take care of the environment so that future generations can benefit from it.

•

Conservation of Biological Diversity: The diversity of plants and animals should be preserved.

•

Improved Valuation, Pricing, and Incentive Mechanisms: The costs of pollution and waste should be paid by those who cause them.

**Australian and International Standards. References:

AS/NZS ISO/IEC 17021.2:2013 [ISO/IEC TS 17021-2 :2012] Conformity assessment - Requirements for bodies providing audit and certification of management systems. Part 2: Competence requirements for auditing and certification of environmental management systems

AS/NZS ISO/IEC 17021.2:2013 Clause 6.7 regarding Use of Space/Physical Attributes (Clause 6.7) Requires knowledge of:

a. the interactions of the physical attributes (size, shape and colour) of buildings, structures and equipment with the local environment (eg, man-made structures that detract from natural ambience, nature, flora and fauna, and natural settings of the environment in which they have been placed);

b. Operational controls and techniques to manage physical attributes, such as planning and design, landscaping, use of colour to reduce intrusive impact on the environment; and

c. the monitoring of spatial planning, building and equipment requirements as well as maintenance systems and landscaping

Brad Bishop				
Managing Director				
GRAD DIP MAN, DIP LOG MAN, CSC, AFAIM, WG CDR (RTD),				
AHPRA Performance and Professional Standards Panel (PPSP)				
m: p:				
e: et al.				
w: qasinternational.com.au				

**National Koala Recovery Plan is clear, unequivocal and must be applied to development proposals undergoing Federal Environmental Assessment. Page 80 of the National Koala Recovery Plan states that the following activities

should be avoided:

• clearing of habitat used by Koalas for feeding and resting

• reducing connectivity between patches of habitat used by Koalas for feeding, resting, commuting and dispersing (either by clearing of vegetation or by the erection of barriers to passage)

• clearing of habitat used by Koalas during extreme events (heat waves, drought/fire refuge)

• activities that will expose Koalas to additional threats (e.g. dogs, cars) in places where Koalas must use the ground to move between resting and feeding trees.

The Federal Minister for Environment must STOP approving 'renewable' projects that are inconsistent with the National Koala Recovery Plan.

Halt further destruction of endangered koala habitat. You can download a copy of the Guide here. <u>https://tinyurl.com/5y9ddm24</u>

To read the National Koala Recovery Plan, see <u>National Recovery Plan for the Koala</u> <u>Phascolarctos cinereus (combined populations of Queensland, New South Wales</u> <u>and the Australian Capital Territory) (dcceew.gov.au)</u>

**Biodiversity Offset Crisis

https://www.crikey.com.au/2023/05/18/biodiversity-offsets-scheme-crisis_

Biodiversity offsets are arguably one of the most damaging environmental policies in a smorgasbord of bad policies, according to the environmental community..... Offsetting has become a trading market with no real transparency or demonstrative environmental benefits. Proponents self-refer projects, both at the NSW government and federal levels.'

****NOTE:** <u>Chinese Solar Panels are coated in Perfluorooctane Sulfonate or</u> <u>Perfluorooctane Sulfonic Acid</u>.

**Australian Drinking Water Guidelines

The National Health and Medical Research Council (NHMRC) has drafted an update of the PFAS Fact Sheet within the Guidelines that includes revised and newly established health-based guideline values. The draft PFAS fact sheet is supported by a NHMRC Statement on PFAS in drinking water, which provides a summary of the findings that informed the update.

The PFAS reviewed as part of the recent update include perfluorooctanoic acid (PFOA); perfluorooctane sulfonic acid (PFOS); perfluorohexane sulfonic acid (PFHxS); perfluorobutane sulfonic acid (PFBS) and hexafluoropropylene oxide dimer acid and its ammonium salt (GenX chemicals).

Further information on the NHMRC Review of PFAS in Australian drinking water is available on the NHMRC website.

****A range of PFAS is also subject to the Stockholm Convention** for the protection of human health and the environment from persistent organic pollutants (POPs) (ie,

PFOS, PFHxS, PFOA and potentially all long chain perfluoroalkyl carboxylic acids). "We have a human right to <u>clean drinking water and an environment free of toxic</u> <u>load</u>," Dr Stops said. "Dr Orellana reminded us that Australia has ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) in 2004. Waste-toenergy incinerators were identified by the Convention as a major source of unintentional POPs pollutants such as dioxins.

As a signatory, the Government is required to take measures to address those emissions.

Waste-to-energy incinerators are incompatible with that requirement." https://lismoreapp.com.au/NewsStory/incinerations-opposition-groups-launchonline-petition/6539d5df28c0030028ec065d

https://lismoreapp.com.au/NewsStory/incinerations-opposition-groups-launchonline-petition/6539d5df28c0030028ec065d

****World Health Organization** now lists two PFAS as carcinogens or possible carcinogens: perfluorooctanoic acid (PFOA) as a Group 1 carcinogen and perfluorooctanesulfonic acid (PFOS) as a Group 2B carcinogen.

****COMMONWEALTH PFAS BAN**

Some types have been found to be toxic to human health and the environment. In its most definitive regulatory action taken to date, the Commonwealth has effectively banned the import, use and manufacture of some of the more prominent types of PFAS (PFOS, PFOA and PFHxS) from 1 July 2025. (21 Feb 2024)

**Community Impact Survey: April-May 2024 – Property Rights Australia https://propertyrightsaustralia.org.au/community-impact-survey-april-may-2024/

****Professor Ivan Kennedy - Solar Contamination & Meterological Impacts** (PDF Attached)

**Leaching Via Weak Spots in Solar Panels

https://www.researchgate.net/publication/348883160 Leaching via Weak Spots in Photovoltaic Modules

"Our long-term experiments clearly demonstrate that it is possible to leach out all, or at least a large amount, of the (toxic) elements from the photovoltaic modules. It is therefore not sufficient to carry out experiments just over <u>24 h</u> and to conclude on the stability and environmental impact of photovoltaic modules."

**Solar Realities - Physicist John Droz jr

https://election-integrity.info/Energy/Solar Energy Concerns.pdf

We know that these are some of the toxic (some carcinogenic) chemicals that have been identified as likely being in solar panels (click on the links to get an idea of what some of the adverse health consequences are): Per- and Polyfluoroalkyl Substances (PFAs) (also see here and here) Perfluorooctane sulphonate (PFOS) Polytetrafluoroethylene (PTFE) Fluorinated Ethylene (FEP) **Cadmium Telluride** Copper Indium Selenide Cadmium Gallium diselenide Copper Indium Gallium diselenide Silicon Tetrachloride Hexafluoroethane **Polyvinyl Fluoride** Also, here is a basic explanation of the silicon manufacturing part of solar panels. The following are some additional toxic chemicals that have been identified as possibly being involved in the fabrication of solar panels, which might end up in the finished product: Hydrogen chloride Silicon tetrachloride Hydrochloric acid Sulfuric acid Nitric acid Sulfuric acid Polycyclic aromatic hydrocarbons Formaldehyde Arsine gas Trichlorosilane gas Silane gas Sulfur dioxide Sulfur hexafluoride Sodium hydroxide Potassium hydroxide Lead

**Contamination from Industrialised Solar's Galvanised Steel Supports https://www.facebook.com/share/p/srbXaCbKgVXocgsm/?mibextid=xfxF2i

**"PFOS and PFOS-related chemicals are still being produced for regulated uses (primarily in China)"

https://greensciencepolicy.org/our-work/building-materials/pfas-in-buildingmaterials/

** "PFOS Chemicals are just as bad for wildlife as they are for humans.

Tests have found that even small levels of contamination can lead to compromised immune systems and brain asymmetry."

https://www.completehomefiltration.com.au/difference-between-pfas-and-pfos/)

**WINAICO's Glass-Glass Solar Modules are PFAS-Free - WINAICO Australia - 17/6/24

https://www.winaico.com.au/blog/winaicos-glass-glass-solar-modules-are-pfas-

free - 'in order to reduce harmful chemicals being released

in the environment, to protect human health, ecosystems and wildlife from contamination, enable safe rainwater consumption and reduce Toxic Solar waste

with a sustainable, reusable product.'

**Victoria solar farm shut down after fire in on-site inverters, must mow grass | RenewEconomy - 24/2/25 https://reneweconomy.com.au/victoria-solar-farm-shut-down-after-fire-in-on-siteinverters-must-mow-grass/

**As 10% of the unethical, PFOS coated, Heavy Metal Leaching Solar Panels will typically arrive on site DAMAGED OR FAULTY - Will they be leaching already & shedding Toxic PFOS?

Where will these thousands of Toxic classed Solar panels be dumped on arrival?

**Defective or Damaged Solar Panel Recycling Mandated for 135 MW project – pv magazine Australia

https://www.pv-magazine-australia.com/2025/02/13/defective-or-damaged-solarpanel-recycling-mandated-for-135-mw-project/

**Unmasking the Toxic Truth - The Solar Panel Waste Story https://youtu.be/_Ck2dHfU3s?si=0WS5CYhuCb6hNvP0

**WIND TURBINES ARE A FAKE GREEN SCOURGE - SHEDDING TONNES OF MICROPLASTICS FROM WIND TURBINE BLADES (KNOWN AS 'LEADING EDGE EROSION') - AFTER ONLY A FEW YEARS OF OPERATION.

****Bisphenol A Pollution from Wind Turbines** - Tim Smith 13/07/2023 "Bisphenol A is the most toxic substance we know" - Swedish Environmental Protection Agency

https://docs.wind-watch.org/Bisphenol-A-Pollution-Wind-Turbines.pdf

**Will Bisphenol A be the PFOS of Wind Energy? https://www.zeeland.nl/sites/default/files/digitaalarchief/IB23_b50318e9.pdf

**Bisphenol A in Wind Turbines Damages Human Fertility https://bergensia.com/bisphenol-a-in-wind-turbines-damages-human-fertility/eshuman-fertility/

**GROUND WATER SUPPLIES MUDDIED BY PILE DRIVING FOR THE MASSIVE WIND TURBINE BASES.

*Wind farm woes continue as Victorian turbines fail after only five years – www.cairnsnews.org - 11th April 2024

https://cairnsnews.org/2024/04/11/wind-farm-woes-continue-as-victorian-turbinesfail-after-only-five-years/

**Wind Turbine Collapse in Western Victoria 'Totally Unacceptable', engineer says

- National Mining Day

https://www.miningday.com.au/wind-turbine-collapse-in-western-victoria-totallyunacceptable-engineer-says/

**Worker crushed in fatal incident at VESTAS Golden Plains Wind Farm in Bells Rd Rokewood, west of Geelong - ABC News

https://www.abc.net.au/news/2024-11-11/wind-turbine-worker-fatal-crushedrokewood-victoria/104584560

**'Liberated' Serrated Parts Flying off New Wind Turbine Blades - some 750-800m from the Turbine - Golden Plains Farmer Russell Coad https://www.heraldsun.com.au/news/victoria/golden-plains-farmer-finds-parts-ofwind-farm-turbine-on-property/video/7937c746ac82a61259e8142313c23587 fbclid=lwY2xjawF3EhhleHRuA2FlbQlxMQABHcVhQ3SlzRc33dBEZHCCN9pHBGYbWI WTRJYh_JI4aN1aPVNeQhLuXLpeQA_aem_RHnlRrtRhpmYpz3dHudmeg

**This Chinese Manufactured Wind Turbine a Veritable Pile of Junk: questions are being asked about material quality and how many more might simply fall over. https://cairnsnews.org/2025/02/09/two-year-old-wind-turbine-in-victoria-collapseshow-unsustainable/

https://cairnsnews.org/2025/02/09/two-year-old-wind-turbine-in-victoria-collapseshow-unsustainable/

**Wind "Farm" Owner Admits Liability to Nuisance Claims - Gibbet Hill Wind Farm, Wexford, Ireland

The case is continuing....

In 2018, the Plaintiffs sued the wind farm for nuisance and sought an injunction. Byrne & anor v ABO Wind Ireland Ltd & ors (Approved) | [2020] IEHC 591 | High Court of Ireland | Judgment | Law | CaseMine "Click on the full Judgement Tab"

Byrne & anor v ABO Wind Ireland Ltd & ors (Approved) | [2020] IEHC 591 | High Court of Ireland | Judgment | Law | CaseMine

**Forever Chemicals' used in Lithium-ion Batteries Threaten Environment, research finds | Lithium-ion batteries | The Guardian 14/7/24 https://www.theguardian.com/technology/article/2024/jul/14/forever-chemicalslithium-ion-batteries-environment

**CSIRO Advisory Note AN-004 Extinguishment of Lithium-Ion Battery Fires.

**Safety of Grid Scale Lithium-ion Battery Energy Storage Systems

"The scale of Li-ion BESS energy storage envisioned at "mega scale" energy farms is unprecedented and requires urgent review. The explosion potential and the lack of engineering standards to prevent thermal runaway may put control of "battery fires" beyond the knowledge, experience and capabilities of local Fire and Rescue Services.

BESS present special hazards to fire-fighters...."

https://www.researchgate.net/publication/352158070 Safety of Grid Scale Lithiu m-ion Battery Energy Storage Systems

**Grid Scale Batteries & Fire Risk

https://static1.squarespace.com/static/656f411497ae14084ad8d03a/t/66fd2383b5 6dbc6906390297/1727865736681/Fannon-Batteries.pdf

** Disaster at Moss Landing: The Risk of Battery Storage - YouTube - 16/1/25 https://www.voutube.com/watch?v=xuTaZFOA18E

**Massive Green Battery Plant Catches on Fire Again https://wattsupwiththat.com/2025/02/20/massive-green-battery-plant-catches-onfire-again-weeks-after-major-toxic-blaze/

**Essex Battery Storage Fire

https://notalotofpeopleknowthat.wordpress.com/2025/02/21/battery-storage-firein-essex/

**https://localnewsmatters.org/2025/02/13/environmental-tests-reveal-elevatedlevels-of-toxic-metals-since-moss-landing-battery-fire/

**https://www.sfgate.com/news/bayarea/article/environmental-tests-revealbattery-metals-around-20163514.php

**https://www.cbsnews.com/sanfrancisco/news/elevated-levels-heavy-metalselkhorn-slough-lithium-battery-facility-fire/

**Battery recycling plant explodes - twice. (What it means for you.) | Auto Expert John Cadogan - YouTube

https://www.youtube.com/watch?v=0-nzOJ01Fkc

****FIRE HAZARDOUS 'RENEWABLE' EXPERIMENT**

"<u>There is a general lack of guidance and provisions in building codes, standards, and legislation in relation to safety to address the potential risks from these emerging technologies. Part of the problem is that we do not yet know enough about their probability of failure, their mechanisms of failure and potential consequences of failure.</u>"

https://www.fire.nsw.gov.au/page.php?id=9402

**Livestock Production Assurance Program

The particular question is 2.8 of the "Food Safety on Your Property" section.

"Do livestock have access to leaking electrical transformers, capacitors, hydraulic equipment, solar panels, wind turbines, coal seam gas structures or coal mine wastes?"

- Yes

- No

- I am now aware and making plans to restrict access

https://www.facebook.com/groups/2147446775628698/posts/2222816628091712/ https://m.facebook.com/story.php? story_fbid=2222816628091712&id=2147446775628698

**<u>Paris Agreement</u> aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to <u>eradicate poverty</u>. Taking over farmland to build facilities to produce intermittent energy is a violation of Article 2, Section 1(b) of the Paris Agreement (2015).

Article 2 1(b) of the 2015 Paris Agreement states:

"This Agreement... aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

"(b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, IN A MANNER THAT DOES NOT THREATEN FOOD PRODUCTION"; See: https://unfccc.int/files/essential_background/convention/application/pdf/ english_paris_agreement.pdf

**Chris Bowen's Energy Policies are a 'Slow-Motion Trainwreck' - Energy Analyst -Aidan Morrison (Centre for Independent Studies.)-15/5/25

.....the last man standing

Energy plans built on hopeful hand waving!

.....the lower decks of the Titanic are flooding.

Will start turning off roof-top solar THIS year!

Assumed falsehoods

The wheels will continue to come off

https://www.youtube.com/watch?v=HQYIrjRkX9M&pp=0gcJCdgAo7VqN5tD

**It's Kean's Fault - Matt Kean!

There is a pent up dam of pressure - so much more around the corner coming.... We're just starting to see the very tip of the iceberg! Aidan Morrison - 13/3/2025 <u>https://www.skynews.com.au/opinion/costs-flow-through-to-consumers-from-labors-renewable-energy-crisis/video/117ea7f80173e5818d94906f52d5fd60</u>

**The 'Sunk Cost' Trickery That Makes Renewables Seem Cheaper Than They Are - 23rd July 2023.

https://www.fresheconomicthinking.com/p/the-sunk-cost-trickery-that-makes? utm_medium=web AIDAN MORRISON How CSIRO justifies the exclusions: "Sunk Cost" But wait, this deception is so brazen and transparent...... All of these tens of billions of dollars of projects are explicitly excluded from the cost of integrating renewables.

**The ISP is:•Not Fit For Purpose
•An Unmitigated Disaster
•Fatally Compromised
•NOT Independent
•DEAD & BURIED!
[CIS Energy Policy Expert Analyst - Aidan Morrison]

**"The idea that adding more & more renewable energy to the grid pushes power prices down has been comprehensively dismissed." 10/2/25. 4:48 minutes - Aidan Morrison:

https://www.skynews.com.au/opinion/peta-credlin/governments-insistence-onrenewables-amid-soaring-power-priceslashed/video/86bd230860f5514d1e587239c6b913ab

**Fresh Pressure on Chris Bowen + Matt Kean - Ben Fordham Live - Aidan Morrison - 07/02/25 <u>8 minutes</u> <u>https://omny.fm/shows/ben-fordham-full-show/saturday-fresh-pressure-on-chris-</u> bowen-matt-kean

[https://omny.fm/shows/ben-fordham-full-show/friday-show-7th-february]

**AEMO was not "trying to find the cheapest replacement for coal" since its Integrated Systems Plan (ISP) must be based on the current government's policy.

"Matt Kean looks like he's lying to Parliament in that case, because the statements he's made... that the market operator's ISP is trying to find the cheapest replacement for coal; that is absolutely false," he said.

"What's become absolutely, unequivocally clear is that the market operators Integrated System Plan is merely an instrument to achieve government policies. It does not allow government policies to be compared to any other alternative.

So this idea that this baseline is somehow tested and compared to other alternatives - like more coal and gas - is utterly false."

16/1/25 - 7 minutes - Aidan Morrison:-

https://www.skynews.com.au/business/energy/utterly-false-energy-expertunleashes-on-climate-change-authority-head-matt-kean-and-market-regulatorbeholden-to-government/news-story/a68147f24f47c99c1a868640f6ab7b64

**Nuclear VS Renewables: What Will It Cost? | Zoe Hiltonhttps://www.youtube.com/watch?v=Mw_AX9WaJ08

**You are being Conned - Adi Paterson GenCON Report & equating AEMO & the Government with Animal Farm! <u>https://youtu.be/J50hWO2DKHc</u>

**Energy Transition Masquerade: The \$360 Billion You Pay - YouTube https://www.youtube.com/watch?v=x0NKDozvO58

**Is Australia building the lowest cost energy system? - YouTube https://www.youtube.com/watch?v=dXolbFCtcUo

**Synchronous Inertia - Spanish Blackout - Paul Miskelly - 3/5/25->

"With sufficient synchronous inertia in place, as used to be the case before the advent of "renewables", then the impact of large-scale system disturbances, such as a generator outage or the collapse of a transmission line, is absorbed, to the extent that the grid operator is given valuable time to deal with such events.

Take away the all-important synchronous inertia, by, for example, allowing over 60% of the power to come from non-synchronous generators, such as solar or wind generators, then that grid has no means to delay the impact of any form of large-scale disturbance.

In that circumstance, the grid operator has mere seconds at most to deal with disturbances. As already stated, we know that this level of renewables penetration was the case at the time of the recent failure in Spain.

The importance of the presence of synchronous inertia to grid operational stability has long been known to electrical engineers and its use is a routine part of grid

control.

Comments then, from some quarters, about some presumed lack of transmission infrastructure to solar generation as being the likely cause of the blackouts in Spain can therefore be seen to be entirely spurious. On a grid lacking sufficient synchronous inertia, ANY system disturbance is going to be a candidate to cause system collapse."

**Beautifully Hackable - Irina Slav on Energy - 12/8/24 https://irinaslav.substack.com/p/beautifully-hackable?utm_campaign=emailpost&utm_source=substack

**Rogue Communication Devices Found in Chinese Inverters <u>https://www.reuters.com/sustainability/climate-energy/ghost-machine-rogue-</u> <u>communication-devices-found-chinese-inverters-2025-05-14/</u>

**Hacked Off: CyberCrims Attack Rooftop Solar To Bring Down Entire Grid https://stopthesethings.com/2024/09/07/hacked-off-cybercrims-attack-rooftopsolar-to-bring-down-entire-grid/ https://stopthesethings.com/2024/09/07/hacked-off-cybercrims-attack-rooftop-

https://stopthesethings.com/2024/09/07/hacked-off-cybercrims-attack-rooftopsolar-to-bring-down-entire-grid/

**U.S Blacklists Chinese Battery Giant

"These batteries are used in electric vehicles here in Australia," Mr Danby said. https://www.skynews.com.au/opinion/us-military-is-concerned-america-blacklistschinese-battery-giant-over-militarylinks/video/765e12fec5e3b837a5e606e40371a7f9

**Australia's Climate Ambitions have a Modern Slavery Problem - ASPI Editors' picks for 2024: 'Australia's climate ambitions have a modern slavery problem: examining the origins of our big batteries' aspistrategist.org.au

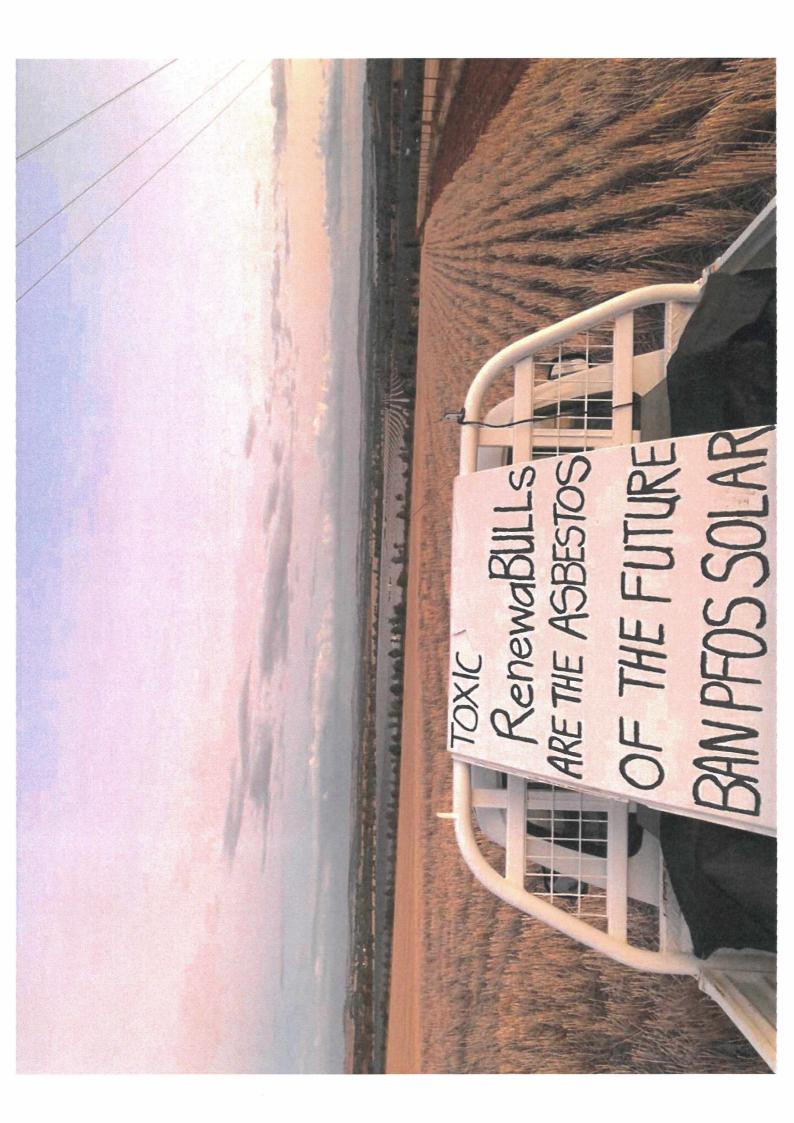
**CCP-tied group is quietly fueling US-based climate initiatives: tax filings 'Environmentalists fueled by China are promoting policies that would increase our dependence on China'

https://www.foxnews.com/politics/ccp-tied-group-quietly-fueling-us-basedclimate-initiatives-tax-filings

**Professor Ivan Kennedy - Solar Contamination & Meterological Impacts

Sent from my iPhone

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Advisory Note AN-004 Extinguishment of Li-Ion Battery Fires

This advisory note provides important information regarding the evaluation and verification of evidence of conformity for the extinguishment of Li-Ion batteries under the CSIRO Verification Services' ActivFire® Scheme.

With increasing usage of Li-Ion batteries in our daily lives, there has been an increase in documented fires, both in Australia and globally, caused by failure of Li-Ion batteries. Some of these fires have caused serious damage to properties in Australia, while fatalities have occurred overseas, throwing a spotlight onto the safety of Li-Ion batteries.

While a number of Li-Ion battery fire extinguishment solutions have been proposed globally, no Australian Standard has been published to provide performance requirements for the extinguishment of fires related to Li-Ion batteries.

In Australia, the Australia Competition and Consumer Commission (ACCC) sets out a list of mandatory standards to make particular safety or information features on products compulsory for legal supply of the product into the Australian market. This includes portable aerosol fire extinguishers and portable non-aerosol fire extinguishers. More information can be found here: <u>https://www.productsafety.gov.au/product-safety-laws/safety-standards-bans/mandatory-standards</u>.

Accordingly, CSIRO Verification Services' ActivFire[®] Scheme advises its stakeholders that it <u>has not and will not</u> certify, and thus provide a Certificate of Conformity, that any fire extinguisher can effectively extinguish a Li-Ion battery fire.

CSIRO Verification Services' ActivFire[®] Scheme supports the development of an Australian Standard and/or acceptance of an internationally recognised Standard that includes performance requirements for the extinguishments of Li-lon battery fires and will continue to work with key stakeholders in the development of such a Standard.

Please contact your local fire brigade in the case of a Li-Ion battery fire.

Issuing Authorities

Kai Loh, Executive Office, ActivFire scheme – CSIRO Verification Services

Tracey Gramlick, Deputy Director – Growth and Strategy, Infrastructure Technologies

Issue date

30-Nov-2023

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IVAN ROBERT KEI	NNEDY	OBJECT	Submission ID: 240002	
Organisation:	N/A		Land Use Compatibility/Conflict,Biodiversity	
Location:	New South Wales 2113	Key issu e s:		
Attachment:	Attached overleaf			
			Submission date: 18/02/2025 20:44	

See attachment

Muswellbrook Solar Electricity Generating + BESS – Independent Planning Commission NSW

'Development of a 135 megawatt (MW) solar farm including a battery storage facility and associated infrastructure. Reference number: SSD-46543209

Risk Management Research is Needed, Now

My interest in this Solar Farm stems from my professional expertise developed at the University of Sydney, managing chemical risk for farmers. Our expertise has been commissioned on many occasions in the past 40 years by official organisations (e.g. APVMA, NFF, CRDC, Qld Canegrowers, etc).

I will discuss just one of the heavy metal usually embedded in solar panels and its potential risks - silver. Silver is preferred because it speeds up electron transport from sunlight in a voltage gradient, for better efficiency. Unlike gold, silver can be reactive. Another area for which I claim more recent published expertise is in meteorology. A solar farm may pose crossdisciplinary environmental risks, even including storms, interacting with each other.

Each solar panel rated for 400 W would contain about 10-20 g of dispersed silver (Ag) (Rout et al., 2025), as well as copper and cadmium. A 135 MW facility could contain up to 7 tonnes of silver, dispersed in the glass panels. Silver may be the major metal component in these solar cells. Even a small lifetime leaching rate of less than 1% could lead to serious 'forever' contamination of soil, preventing plant growth.

- My first question is whether the risks of toxic contamination of soil have been scientifically assessed. The response given below by the Department of Planning referring to new panels, many of which are rated faulty at installation, is inadequate. Misadventure such as thunderstorms with large hail destroyed much of a functioning Houston solar farm in Texas, USA, in March, 2024, two years after commission. This is not an isolated incident. This toxic metal in panels can without doubt be oxidised in runoff water to an ionic form (Ag+) and then bound by organic matter or clays in soil. Silver ions are at the high scale of heavy metal toxicity just below mercury (Tsepina et al. 2022); they bind in ionic form to essential components of living systems like enzymes and rank next after chromium on the list of mutagenic substances, potential carcinogens.
- According to available information, a concentration of silver in soil considered toxic generally falls within the range of 1-10 mg/kg depending on the soil type and the form of silver present in soil (Tsipina et al., 2024); however, concentrations as low as 0.1 mg/kg may show detrimental effects on soil microbial communities in certain situations. Such a low concentration might be reached with as little as 0.1% lifetime leaching of silver from panels.
- iii) An accurate calculation is not possible without exact solar farm specifications, but for soil density of 1.3 or around 1,300 kg per cubic metre, and for a mid-range toxicity 5 mg/kg (5 ppm by weight), then a total release of only 1.3% or 650 mg of silver per metre square from a panel supporting 50 g of silver could contaminate 130 kg of soil to a depth of 10 cm, enough to prevent all surface plant life. However, even low concentrations of Ag from leaching near one part per billion in water and soil can be expected to show some toxicity to soil bacteria and other organisms.

Sterilisation of drinking water from *Legionella* is commonly achieved by electrolytic formation of very dilute silver ions (Ag⁺). Once released as leachate, all metal ions will then bind firmly to surface soil irreversibly and the contaminated area lost to agriculture as a hazardous site, probably forever.

- iv) The Western Downs Green Power Hub in Queensland is Australia's largest operating solar farm. It has a capacity of 460 megawatts (MWp) and is made up of over one million solar panels on 1,500 hectares of land. So 460 MW has an estimated 23,000 kg of silver with an overall toxic coverage of about 1,500 mg per square metre, or 11.5 ppm (mg/kg) if restricted to the top 10 cm.
- v) A monitoring program for leakage from storm and hail damage should be a requirement for operation of solar farms. This leaching is expected to increase with time as the pure metal gradually diffuses as a result of the gradient in its activity.

Risk research for the probability of toxic impacts is needed.

vi) My second question regards meteorology over solar farms. My question is what is the likelihood of major hailstorms in the 20-year life cycle of solar panels. The 350 MW Fighting Jays solar farm's lifetime for many of the panels was reduced to less than 2 years from July 2022. If these cells include heavy metals like silver, there would be irreversible loss of much of the soil under the panels. Research is needed to determine the risk of leaching under such circumstances. Is it possible that the low albedo of solar panels absorbing solar panel to a warmer temperature could even increase the likelihood of thunderstorms, as a focus for convection (Branch et al., 2024). A warmer surface on solar farms will cause more evaporation, providing the huge latent heat energy that of water vapour that at 5% of air can power major major storms.

Risk research and management is needed here too. There may be ways of reducing damage, such as protection from storm or hail damage, such as orientation.

Professor Penelope Crossley **and the second second**

My brief analysis concludes with the following recommendations:

- A lifetime risk analysis be performed for this solar farm before proceeding, including clear responsibility for safe methods of panel disposal, given chemical recycling in Australia is not economic. We cannot accept a high probability for losing any of our productive soils, either from future agriculture or the natural environment.
- (ii) A condition for approval for construction of solar farms, long term leaching rates of heavy metals from modules like silver and cadmium must be measured on site as due diligence. This submission has focussed on silver, which is about 0.1% of the weight of each solar panel, similar to that of equally toxic cadmium; the latter is often associated with zinc coating made to protect metal sheeting, or low quality phosphate fertiliser, a problem farmers already experience.

Who will be responsible? Properly conducted periodic analyses of soil under solar installations should be performed annually to help ensure environmental safety is guaranteed. Such soil and water analysis is readily available commercially, or in government departments. If serious leaching is detected, who will enforce replacement with non-leaching panels.

(iii) I dispute the short-term conclusion made without chemical research by Nicole Brewer of the Department of planning and Environment below that "the use of metals in solar panels has not been found to pose a risk to the environment. To readily release contaminants into the environment, solar panels would need to be ground to a fine dust". On the contrary, despite being embedded in glass or plastic when made, pure silver atoms and molecules such as sulfides will always diffuse away at a measurable rate, given sufficient time and high temperature, because of the large thermodynamic gradient and increasing entropy, an area of my expertise. This corrosion and dispersion is natural, recognised by many publications as significantly diminishing the efficiency of solar modules containing silver or protective plastic; attempts to generate more durable solar cells exist (Li et al. 2020; Jeffries et al. 2021; Fairbrother et al. 2022), which should be considered.

Nover et al. (2021) have confirmed leaching using photovoltaic modules focussing on cadmium for 1.5 year leaching experiments, only one-tenth the expected module lifetime. Short- term experiments with crushed PV modules are irrelevant, given the absence of disruptive environmental variables of oscillating temperature, leaching by acid rain water with pH value less than 7 and significant ultraviolet radiation, stressing the glass modules, causing their structural deterioration by separating their layers and increasingly exposing metals to leaching and reaction of silver with natural products in poorly drained soils such as H₂S. Shown in my analysis above in (iii), even 1% of average leaching would permanently poison the surface soil beneath each panel.

(iv) The cumulative likelihood of destructive meteorological events, particularly including hail in thunderstorms, should be estimated by modelling. Amongst the questions that could arise, whether the low albedo of solar panels of under 0.05, meaning almost no reflection of sunlight, could raise the probability of convective storm events by local warming, increasing the likelihood of thunderstorms even breaking photovoltaic structures.

Meteorologists have even proposed recently that very large blackened panels could be used to increase precipitation from convective rainfall (Branch et al. 2024); this would not apply to a 380 ha low albedo site. Hail damage might be minimised by orientation of panels, and protective shielding in storm prone areas of higher humidity. Such measures should be investigated as risk mitigation by proprietors for insurance.

I make this submission citing my references that supported my 5-minute verbal presentation to the IPCN on February 12. I am grateful for that opportunity, requesting that risk management

and research are employed as far as possible, with clear guidance for responsibility of action, to minimise the likelihood of serious unintended consequences.

Yours sincerely,

Ivan R. Kennedy AM FRACI

Professor Emeritus in Agricultural & Environmental Chemistry, School of Life and Environmental Sciences Institute of Agriculture, University of Sydney NSW 2006

Submissions DUE - 19th February 2025

https://www.planning.nsw.gov.au/sites/default/files/2024-11/renewable-energy-planningframework-faq.pdf

https://www.planning.nsw.gov.au/sites/default/files/2023-03/large-scale-solar-energyguideline-faq.pdf

Appendix; Do solar panels contaminate soil?

The metals in solar panels (including lead, cadmium, copper, indium, gallium and nickel) cannot be easily released into the environment. This is because metals such as cadmium telluride (CdTe) or cadmium sulfide (CdS) are enclosed in thin layers between sheets of glass or plastic within the solar panel. Because of this, the use of metals in solar panels has not been found to pose a risk to the environment.

To readily release contaminants into the environment, solar panels would need to be ground to a fine dust.

Begin forwarded message:

From: Nicole Brewer

Date: 15 August 2022 at 8:04:07 AM AEST

To:

Subject: Response to enquiry

Dear

I understand you have spoken with Damien Griffin of the Water Enquiries Team and requested follow up on the issue of contamination risk from developments in the Riverina and that you considered there was a perceived conflict of interest with a former Department staff member now working for the Walla Walla Solar Farm.

In regard to your query regarding the issue of contamination, the metals in solar panels cannot be easily released into the environment. This is because the metals are enclosed in thin layers between sheets of glass or plastic within the solar panel. **Because of this, the use of metals in**

solar panels has not been found to pose a risk to the environment. To readily release contaminants into the environment, solar panels would need to be ground to a fine dust.

In addition, the conditions of consent require applicants to avoid causing any water pollution, as defined under Section 120 of the *Protection of the Environment Operations Act* 1997.

In regard to your query about former Department staff being employed by an applicant, I can confirm that his employment with the applicant commenced post approval of the Walla Walla Solar Farm and there was no overlap in his employment with the applicant and the Department.

In addition, I note that the Walla Walla Solar Farm was subject to a detailed assessment by the Department in accordance with relevant policies and guidelines and in consultation with government agencies and Council. The final decision was made by the Independent Planning Commission (IPC). The IPC assessment process included a site inspection and a public meeting.

Regards

Nicole

Nicole Brewer Director, Energy Assessments Planning and Assessment Department of Planning and Environment

www.dpie.nsw.gov.au, 4 Parramatta Square, 12 Darcy Street Parramatta NSW 2150 Locked Bag 5022, Parramatta NSW 2124

References

Branch, O., Jach, L., Schwitalla, T., Warrach-Sagi, K., Wulfmeyer, V. (2024) Scaling artificial heat islands too enhance precipitation in the United Arab Emirates. *Earth Syst. Dynam.* 15, 109-129. <u>https://doi.org/10.5194/esd-15-109-2024</u>.

Meteorological scale for inducing rainfall

Fairbrother, A., Gnocchi, L., Ballif, C., Virtuani, A. (2022). Corrosion testing of solar cells: Wearout degradation behaviour. *Sol. Ener. Mater. Solar Cells* 248, 111974.htpps://doi.org/10.1016/j.solmat.2022.111974.

Jeffries, A.M., Nietzold, T., Schelhas, L.T., Bertoni, M.I. (2021) Corrosion of novel reactive silver ink and commercial silver-based metallizations in diluted acetic acid. *Sol. Ener. Mat. Sol. Cells* 223, 110900. <u>https://doi.org/10.1016/j.solmat.2020.110900</u>.

Li, X., Fu, S., Zhang, W., Ke, S., Song, W., Fang, J. (2020) Chemical anti-corrosion strategy for stable inverted perovskite solar cells. *Sci. Adv.* 6: eabd1580.

Nover, J., Zapf-Gottwick, Feifel, C., Koch, M., Werner, J.H. (2021) Leaching via weak spots in photovoltaic modules. Energies, 14, 692 <u>https://doi.org/10.3390/en14030692</u>.

Long term experiments show "it is possible to leach out all ... of the toxic elements from the photvoltaic modules".

Rout, S., Jana, P., Borra, C.R., Önola, M.A.R. (2025) Unlocking silver from end-of-life pholovoltaic panels: A concise review. *Ren. Sustain. Ener. Rev.* 210, 115205. https://doi.org/10.1016/jrser.2024.115205.

This article reviews existing recycling technologies, with acidic solutions among the most popular for extracting silver from solar panels.

Tsepina, N., Kolesnokov, S., Minnikova, T., Timoshenko, A., Kazeev, K. (2022) Soil contamination by silver and assessment of its ecotoxicity. *Rev. Agric. Sci.* 10, 186-205. <u>https://doi.org/10.7831/ras.10.0_186</u>.

Negative effects of silver greater than 0.5 ppm decrease plant growth, suppress growth of earthworms, decrease soil bacteria and inhibit soil enzymes Silver is the second most toxic substance after mercury. As for mutagenic properties, this reactivity series is somewhat different from the toxicity series Cr6+ >> Ag > Hg > Cd, > Mo6+, Pb > W6+ > Cu.