

Select Committee on PFAS (per and polyfluoroalkyl substances) Inquiry Submission

Dear Select Committee on PFAS (per and polyfluoroalkyl substances,)

Our submission focusses on **PFAS Contamination Risks from Renewable Infrastructure.**

The irresponsible expansion of the renewable energy industry, particularly in rural Australia, is alarming in its failure to account for critical public health, safety, and environmental concerns.

At the forefront of these concerns is the impact on water, soil, and natural resources that are vital for human health, food production and the sustainability of local ecosystems.

The lack of due diligence in the approval and oversight of industrialised solar, wind energy, and lithium-ion battery storage systems—often in our most productive agricultural regions—has exposed an appalling disregard for the essential principle that the first responsibility of any government is to protect its citizens.

PFAS and Toxic Chemical Contamination Risks:

The introduction of PFAS (per- and polyfluoroalkyl substances), heavy metals, bisphenol-A, and other toxic substances into our land and water systems due to renewable energy infrastructure represents a catastrophic oversight.

1.PFAS Contamination:

These "forever chemicals" persist indefinitely in the environment, contaminating soil, groundwater, and surface water.

Solar panels, inverters, wind turbine blades and battery storage systems, when they degrade, age, are inferior, damaged and broken due to weather events like storms and hail or burnt during fires, as well as if they are not properly decommissioned, release harmful PFAS, heavy metals, and hazardous chemicals. Yet, the approval bodies fail to enforce essential prevention, testing, monitoring and remediation protocols during the operational life of these projects.

The consequences of PFAS contamination, especially in vital agricultural areas, are profound.

The government's failure to prevent PFAS contamination, particularly near vital water sources such as the Hume Dam, the Murray Darling and Murrumbidgee River catchments and irrigation canals in the Riverina, demonstrates a systemic neglect of the long-term risks to food security and public health and safety.

2.Lack of Scientific Determination and Research: The renewable energy industry operates without adequate scientific evidence regarding the long-term risks of chemical leachate and contamination from degraded, aged, inferior, broken and burnt solar panels and inverters, Bisphenol A shedding wind turbine blades suffering leading edge erosion, lithium-ion battery residue and hazardous smoke and other associated infrastructure.

The state and federal government, local councils, and faux 'Independent' approving bodies (such as Regional Planning Panels, IPCN, IAC) continue to approve renewable energy projects without requiring reputable, independent toxicology studies or environmental health assessments.

This failure reflects a shocking disregard for public health and safety.

3.Unaddressed Fire and Toxicity Risks: Solar panels, wind turbines, and lithium-ion batteries are prone to fires that release toxic chemicals, including PFAS.

During these fires, the public is at risk of exposure to carcinogenic and teratogenic substances.

Notably, the NSW Fire Authority has openly stated the lack of guidance or infrastructure to deal with these fires in rural areas.

Yet, there is no independent scientific assessment of the risk posed by such fires, nor any effective strategy to prevent or mitigate the consequences.

4.Lack of Onsite and Surrounding Area Monitoring:

There is no comprehensive, ongoing environmental monitoring of solar, wind, or lithium-ion battery storage facilities during their operational lifetime.

Despite the foreseeable risks of contamination, there are no requirements for regular testing of onsite and surrounding soil and water to identify and address contamination before it affects human health or food production.

This gross neglect highlights the industry's recklessness and the government's failure to enforce regulations or provide adequate oversight.

The renewable industry has been enabled by the government to be a law unto itself.

Examples of Irresponsible Approvals and Serious Neglect:

Glenellen Solar Electricity Generating Works and Yanco Battery Energy Storage System.

1.The Glenellen Solar Electricity Generating Works:

Situated in Greater Hume Shire, this is one of four, approved, fiercely objected to, Industrialised Solar Electricity Generating Works - totalling 2.4 Million Solar panels - most of which are regrettably, already constructed without social licence - against the will of the community and the Greater Hume Council.

All levels of Government, their Departments and the Independent Planning Commission (IPCN) have completely failed to factually assess and scientifically determine the toxic contaminating impacts from degrading, aged, inferior, damaged, broken, hail fractured and burnt solar panels during the whole operational life of the Solar Electricity Generating Works in their flawed approval process.

Kilnacroft Creek traverses the Glenellen Solar site & runs into Dead Horse Creek & then into Bowna Creek.

Four Mile Creek is on the eastern boundary and it joins Dead Horse Creek to form Bowna Creek which runs directly into Albury's Hume Dam - a major and essential water storage for NSW, Victoria and SA for human consumption, irrigation, and environmental flows across the system.

Glenellen Solar faced significant storm damage on the 30th August 2025 - leaving a plethora of broken and damaged solar panels leaching heavy metals and PFAS into the surrounding environment.

Despite the imminent risk of contamination - with rainwater washing toxins from the panels - these damaged solar panels have remained broken on-site, awaiting insurance assessment, with no plans in place for immediate testing, monitoring and reporting of toxic contamination or any clean-up and remediation protocol.

The absence of independent research and a contamination response procedure PRIOR to construction is an appalling oversight.

2. Yanco Battery Energy Storage System (BESS):

Yanco is known for its contributions to agricultural research and education. It is situated in the heart of the Murrumbidgee Irrigation Area (MIA,) a highly productive and diverse agricultural region - with world-leading, innovative and sustainable management of water resources - water management systems.

It is particularly famous for its substantial contributions to the nation's rice and wine industries, producing 50% of Australia's rice and a significant portion of its wine grapes. The MIA is one of Australia's most productive and diverse farming regions, supporting a vast array of crops including rice, citrus, grapes, cotton, and vegetables, as well as pasture and lucerne.

It serves as a critical "food bowl" for the nation, with significant exports and substantial production of key agricultural commodities.

The Yanco BESS, has recently been irresponsibly and unacceptably approved amidst this vital "food bowl" - without proper assessment and social licence - above the Lower Murrumbidgee Alluvium - a highly productive alluvial aquifer - with the development site "identified within the groundwater vulnerability mapping under the LLEP, which aims to ensure key groundwater systems are maintained and protected from depletion or contamination."

This location raises significant concerns among the environmental, agricultural and Indigenous community regarding the potential impacts on the aquifer, particularly given its high productivity and the vulnerability indicated in the LLEP.

It is completely inappropriate that filthy, extremely fire hazardous, toxic chemical and Bis-FASl contaminating Lithium-ion Battery Energy Storage Systems would ever be approved in the highly productive MIA surrounded by essential food crops and situated adjacent to an irrigation channel, across the road from the Gogeldrie Branch Canal, near critical water sources such as Guises Creek and the Murrumbidgee River.

There are already at least two more, toxic contaminating Lithium-ion Battery Energy Storage Systems planned in very close proximity to Yanco BESS.

This further exemplifies the lack of foresight in the planning and approval of renewable energy projects.

The lack of credible toxicological studies on fire risks, chemical contamination, and soil degradation is unconscionable.

The proximity to the Murrumbidgee River and key irrigation channels means that any contamination from this site could spread far and wide, threatening not just the immediate area but entire water systems crucial for drinking water and agriculture.

The cumulative impacts have not been considered at all, let alone addressed - with vast numbers of toxic contaminating, purveyors of poisonous PFAS, already littered throughout the Riverina's irreplaceable food producing land, with far more planned that have vital water sources on site, beneath, adjacent or in close proximity - which is placing the Murrumbidgee and Murray Darling catchments - our essential water supplies - and our life-sustaining food production in an extremely precarious position.

Recommendations to the Inquiry:

1.Immediate Moratorium on Renewable Energy Projects:

An immediate halt should be imposed on the approval and construction of industrial-scale solar, wind, and BESS projects in agricultural regions until a full, independent environmental and toxicological assessment is conducted. This assessment should include the risk of PFAS contamination, heavy metal leachate, and the effects of thermal runaway in lithium-ion batteries.

2.Implementation of Strict Monitoring and Reporting Protocols:

The government must enforce strict, independent, expert testing, monitoring, and reporting of all renewable energy projects' environmental impacts—particularly around PFAS, heavy metals and Bisphenol A contamination.

This should include reputable, independent baseline testing of water and soil before the construction of any renewable energy facility, followed by frequent testing, monitoring and reporting during operation and after decommissioning - which must be guaranteed by an upfront Clean-up/

Decommissioning/Remediation Bond - to properly cover storm and fire events as well as abandonment.

3.Stronger Legislation and Regulatory Oversight:

The existing regulations, including those related to the Commonwealth PFAS Ban and the Australian Drinking Water Guidelines, must be applied rigorously to all renewable energy projects.

The government must hold developers accountable for the environmental impacts of their projects, including the full lifecycle of hazardous materials, decommissioning, and remediation. Regulatory agencies must act as ethical, independent overseers with integrity, rather than as enablers of predatory vested interests as they do now.

4.Independent Scientific Research and Peer Review:

There is an urgent need for independent scientific studies that evaluate the long-term risks of PFAS, heavy metals, Bisphenol A and other toxic chemicals associated with renewable energy infrastructure.

The government must fund reputable, independent, peer-reviewed research to protect the public by determining the full extent of these risks and ensuring that such findings are integrated into future planning decisions.

5.Environmental Remediation Plans and Financial Bonds: Developers must be required to implement comprehensive, long-term environmental remediation plans, with upfront financial bonds in place to cover the cost of future remediation in the event of contamination. Without such safeguards, the public will be left to unjustly bear all the burden of cleaning up the mess - if that's even possible - left behind by negligent developers.

Conclusion:

It is unconscionable for the government and approving bodies to continue prioritising renewable energy projects over the health, safety, and ecosystem security of Australian citizens.

The reckless approval of these projects—often in highly productive agricultural areas—puts our land, water, and future generations at serious risk.

The government must immediately halt the approval of new projects, enforce stronger environmental protections, and initiate a thorough, independent inquiry into the full environmental and public health impacts of renewable energy infrastructure. The reckless pursuit of this toxic contaminating renewable energy transition - with its enormous environmental footprint - at the expense of food security, water security and human health must end.

References:

*Professor Ivan Kennedy:

'The Environmental Toxicity of the Solar Panels Employed'

*PDF of Photos - Storm Damaged Solar Panels - Glenellen Solar Electricity Generating Works - 30/8/2025

From

'Save Our Surroundings Riverina'

*Professor Ivan Kennedy:

'The Environmental Toxicity of the Solar Panels Employed'