

18 September 2024

Middlebrook Solar Farm (SSD-10455)

IPCN Hearing (Tamworth) 19 September 2024

Panel Chair and Commissioners,

Contamination and Waste Management are issues that are being swept under the carpet. It's time government stop putting renewable targets ahead of the nation's public health and food security.

The long-term problem of toxic contamination finding its way into soil profiles and waterways; and the waste management arising from solar components and Battery Energy Storage Systems is acknowledged worldwide as a '**ticking time-bomb**'. Presently under Schedule 1 of the POEO Act 1997, electricity works that generate electricity by solar are not scheduled. That means that the Department of Planning, Housing and Infrastructure and the Environment Protection Authority (EPA) are absolved from any responsibility regarding contamination caused or waste arising from solar generation. This is further confirmed in correspondence to Wagga Wagga City Council April 2021, when the EPA noted that the Local Government Authority is responsible for these matters. That would suggest that in the case of Middlebrook Solar, the burden will ultimately rest with Tamworth Regional Council, and then be passed onto the landowner and likely finishing in intractable litigation.

Toxic '*forever chemicals*' imbedded in lithium-ion batteries present a dangerous source of chemical pollution that recent research carried out by Dr Jennifer Guelfo of Texas Tech University and Dr Lee Ferguson of Duke University found in a peer reviewed co-authored paper published in various science journals July this year, threatens the environment and human health. They found alarming levels of the chemicals in the environment near manufacturing plants in the US, Belgium and France, and discovered that waste from batteries disposed of in landfills was developing as a major pollution source.

'Forever chemicals' are a class of man-made compounds most often used to make products resistant to water, stains and heat. They are called 'forever chemicals' because they do not naturally break down and have been found to accumulate in humans. The chemicals are linked to cancer, birth defects, liver disease, plummeting sperm counts and a range of other serious health problems.

The Guelfo/Ferguson paper notes that few end-of-life standards for battery waste exist, and the vast majority end up in landfills where it can leach into waterways and soil profiles. Detection of the chemicals in snow far from manufacturing plants or landfill suggests the chemicals, like BPA, easily move through the atmosphere.

The study noted previous research that as little as 5 per cent of lithium batteries are recycled. That could yield a projected 8 million tons of battery waste by 2040, if battery recycling is not dramatically scaled up with demand.

As an accredited LPA livestock producer selling beef into the Grass-Fed market, I am fully aware of the strict compliance requirements of the rules and regulations set down by Meat Standards Australia in regard to feed containing chemical residues within a Withholding Period when harvested, and any livestock still within a Withholding Period or ESI as set by SAFEMEAT following treatment with any veterinary drug or chemical, and their slaughter interval for export.

To meet these criteria a National Vendor Declaration must accompany all movement of livestock and there is an obligation that I must be absolutely satisfied that I have correctly completed all parts of the NVD and that I understand that any misleading or unverified statements may result in prosecution, heavy fines or loss of my LPA accreditation thereby precluding me from trading.

Australia's reputation for clean green '*food and fibre*' has been built over generations on the back of good practice and strict governance. A priceless reputation second to none and envied by our competitors. Export destinations like the US, Japan, Korea, China and Europe are very aware of the dangers of BPA in foods and packaging. If they were to get a whiff that our beef or lamb could be contaminated with heavy metals or other toxins like 'forever chemicals', our brand, built over generations would be destroyed overnight.

International public health advocates are sounding alarm bells about the need to find alternatives to the toxic chemicals and heavy metals imbedded in renewable energy componentry. Accordingly, there needs to be a far greater focus on the toxic contamination risks arising from solar farms and BESS potentially causing leaching of 'forever chemicals' and heavy metals such as cadmium, cobalt, lead, lithium-copper, mercury, and nickel into our agricultural land, water resources and atmosphere, and also a greater focus on the associated Occupational Health & Safety risks, the impact on Intergenerational Equity for our children and grandchildren and the potential elevated stock toxicity levels as a measure to protect crops, livestock and producers, thereby ensuring food security for future generations.

The transition has not been properly thought through and it has far too many '*unintended consequences*' for it to be fit for purpose as presently there is no satisfactory plan for where the hundreds of millions of toxic solar panels and millions of tons of dangerous batteries will eventually end up.

This nation cannot afford to let public health and food security be undermined by this unparallel travesty, and until such time as environmental, property, and food chain protection plans have been established, I call on the NSW government to apply the '*precautionary principle*' and initiate a moratorium on Middlebrook and other solar farm applications.

Ian McDonald, Walcha Grazier