

**Submission
No 59**

**INQUIRY INTO INQUIRY INTO PFAS CONTAMINATION
IN WATERWAYS AND DRINKING WATER SUPPLIES
THROUGHOUT NEW SOUTH WALES**

Name: Bob King

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I appreciate the opportunity to make a submission to the NSW Legislative Assembly inquiry into "Contamination in Waterways and Drinking Water Supplies".

My concern is PFAS getting into the waters of Warragamba Dam.

PFAS is used in four places in big batteries; they are used as cathode binder material, additives to the electrolyte solution, as seals, and separator coatings. They are an important enabler for a Lithium-ion battery.

Big batteries are used for storage with renewables. Apart from simply degrading slowly, they are frequently subject to fire. They emit toxic smoke and infiltrate surrounding soil. This 17 Jan 24 report is from an open source from Francis Menton, a retired New York Lawyer who writes under the name of Manhattan Contrarian. It highlights the vast number of batteries required in a transition and the significant instances of fire - <https://www.manhattancontrarian.com/blog/2025-1-17-the-energy-storage-fiasco-how-soon-will-it-be-abandoned-h5w94> a 5 minute read.



[The Energy Storage Fiasco -- How Soon Will It Be Abandoned? — Manhattan Contrarian](https://www.manhattancontrarian.com/blog/2025-1-17-the-energy-storage-fiasco-how-soon-will-it-be-abandoned-h5w94)

Energy from the wind and the sun — they're clean and green and free. OK, there's the small problem of intermittency. But clearly the intermittency problem can easily be solved with a few batteries to store some power for the occasional calm nights.

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Big battery and EV fires are extremely difficult to extinguish, usually left to burn themselves out or tempered with massive quantities of water.

The world's first big battery in 2017 was the Hornsdale Power Reserve in South Australia initially for 100 MW in 2017 later expanded by 50 MW in 2020. The Victorian Big Battery is a 300MW/450MWhr grid-scale battery storage project in Geelong, Victoria reputed in October 2024 to be one of the world's largest.

There are batteries planned to be built in the small NSW town of Bannaby.

Bannaby with a population of 30 is at the Northern end of Humelink, the \$4.8BLN 500kV transmission line. It is half way between Goulburn and Jenolan caves. You may have passed through it on the backroad going from Lithgow to Canberra.

At Bannaby, there are proposal for 3 very large batteries, being:-

Bannaby Battery Energy Storage System - Requested SEARs
750MW/3,000MWhrs, at a guess worth A\$1.2BLN
Swallow Tail Battery Energy Storage System - SEARs Issued BANNABY
375MW/1,500MWhrs
Hanworth Battery Energy Storage System - SEARs Issued
HUGE BANNABY 1.2GW/4.8GWhrs

These batteries will be in the headwaters of Warragamba Dam.

Returning to Francis Menton's analysis "It seems that the frequency of these spontaneous fires increases with the size of the battery."

Regards,

Bob King

Name and suburb may be published.
I have made no political donations.