

QUESTIONS FOR AMPOL

Compiled for the Kurnell Progress, Precinct & Residents Association in response to the Kurnell Battery Energy Storage System (BESS)

Date of submission: 7th May 2025

1. Who has determined that Ampol should become the Kurnell Energy and Industry Hub? What was the consultation process?
2. Heavy industrial Zoning was granted for operation of the oil refinery, why is it now being used for purposes other than oil refinery operation. What consultation process was undertaken to enable this to happen?
3. The scoping report aims to have the BESS approved in isolation of future power generation projects. What is happening with the sustainable aviation fuel storage project? And other projects alluded to in the Ampol issued Kurnell Energy and Industry Hub (undated publication). The community don't believe that the BESS can be approved in isolation of these projects and completed without a substantial increase in risk to the Kurnell Community. A full risk assessment showing all projects is required.
4. Are there any plans to change the source of electricity from the electricity network to something else?
5. Does this BESS system have anything to do with the new proposed Holt development? Is this development powered by this battery?
6. Will Ampol be the builders and the management of the BESS, or will they wipe their hands and let it out to a private run industry. Has the build commenced?
7. Does this project have any connection or is it in any way associated with the offshore wind farm project? How will it affect whales and other wildlife migration such as bird migration from Siberia?
8. Is the National Parks and Wildlife service a key stakeholder as Ampol's neighbour? They've just spent \$20m on park improvements. What is their position on the proposed BESS?
9. When will the EPA be engaged?
10. As an alternative to the BESS project, has any consideration been given to the sale of redundant land on your site due to the decommissioning of your terminal back to the community to be used for either residential or recreational purposes?

SITE LOCATION

11. Has the impact to the proposed development at Boat Harbour been taken into account?
12. Why is a suburban location within such close proximity to housing considered necessary, given the availability of remote sites throughout NSW that are less likely to endanger residents?
13. What specific benefits does the Kurnell site offer alternative locations that justify exposing residents to potential fire and toxic fume risks?
14. Have you considered the precedent set by rejected BESS proposals, such as the Cults, Aberdeen site, refused due to safety, noise, and green belt concerns? How does the Kurnell proposal address these same issues?
15. How does the proposal align with global trends, such as New York's one-mile (approx 1.6km) buffer zones for BESS, to protect residents from fire and explosion risks? Why is 500m deemed sufficient for Kurnell?
16. What evidence supports the claim that the Kurnell South substation's proximity necessitates a BESS so close to housing, rather than a more distant site connected via existing grid infrastructure?

BATTERY TECHNOLOGY QUESTIONS

17. When will Ampol understand which battery technology they will be using? What is the battery technology? At the last meeting you stated you did not know what batteries and volume were to be used? Have you now decided this? Why are shipping containers being used? Wouldn't these heat faster than a concrete housing? How many shipping containers comprise a 3800MWHH BESS? What is the acreage size?
18. How many places is the selected technology being used throughout the world? How many batteries of this size(s) are used in the world? How many incidents have occurred to date?
19. Please state the HF and HCL levels that are seen in the fire tests (your large scale tests where you burn a whole unit). Are they under the levels specified in the Australian Fire Safety Regulations and Standards?
20. Please state what kind of metal particulates end up in the air during a fire and far they can travel. Also what are the health risks associated?
21. Please state what kind of chemistry is being used in the Lithium-ion batteries - LFP (lithium iron phosphate) or NMC (nickel manganese cobalt)?
22. Please supply the plume models - which gases are coming off the units? What are the health risks associated with each?

23. What is the life cycle of the battery? What is the safe operating level with the aging asset (storage tanks)? How will the asset (both BESS and tanks) be disposed of when it's EOL?

FIRE SAFETY AND RISK

24. Please provide the document that details the special problems of firefighting and special hazards and how this will be addressed for this BESS.
25. Please provide the bushfire assessment report which addresses the requirements for Planning for Bushfire Protection 2019 – how does this affect Kamay Botany Bay National Park?
26. If a battery caught fire and the gas released exploded, what is the blast area in proximity to the fuel storage tanks? - **What is the risk of thermal runaway?**
27. How will an incident be managed? What will happen to Captain Cook Drive in the event an exclusion zone is put in place? How would residents be evacuated?
28. How would an evacuation during a seasonal peak (beach, whale watching etc) happen? It should be incumbent on Ampol to produce and test an evacuation plan for all tourists/residents together with emergency services.
29. There is insufficient detail regarding the fire safety and emergency response aspects. When will the hazard and risk analysis for fire and life safety systems, and emergency response be available for comment?
30. How will airport traffic be handled in the event of a fire? How will it be managed, particularly if the wind is blowing smoke/gases in that direction?
31. Having a BESS this close to a fuel storage depot increases the potential of an attack by an extremist. What additional measures would be put in place to prevent this.

NOISE AND VIBRATION AND LIGHTING

32. How loud will the running of the batteries and associated infrastructure be during the night and early morning (plus the Ampol storage operation) for all areas of Kurnell. How is the noise from the high voltage substation noise going to be addressed?
33. Section 6.4 of the Scoping Report talks of sensitive receivers – the Kurnell Preschool is clearly the closest educational receiver to the Ampol/BESS site, but is not listed in the Scoping Report. Why was this excluded, was it an oversight?

34. Please provide details as to whether strobe lights will be used on top of all lightning rods and whether the overall structure, with any associated lighting, will have a visual impact on adjoining and nearby sensitive areas and fauna, especially bats and nocturnal marsupials.

GEOLOGY, SOILS, GROUNDWATER AND CONTAMINATION

35. Section 6.2 – when will soil contamination be addressed?
36. Please provide a copy of the Land Use Conflict Risk Assessment – clearly the use of the land for a BESS conflicts with the neighbouring land which is predominantly residential.
37. The subject property is listed in Sutherland Shire Council's Contaminated Land Register as being contaminated land and subject to an EMP. Please provide complete and definitive information regarding the type, extent and level of potential contamination on the site and any relevant Remediation Action Plans.

SURFACE WATER AND FLOODING

38. Whilst Section 6.3.1 talks about surface water and flood risk. "The Investigation area is generally elevated ...". This needs to be specific. The use of the word "Generally" is too non-specific. Please advise exact dimensions. It should also be noted that while the Scoping Report talks of a high tide being 1.6m, tides up to 2.1m are experienced here at Kurnell several times a year and any assessment approach should take this into account in the EIS. When will the development applications for the 2022 incident flood improvement mitigation measures be lodged and will they be addressed before the proposal proceeds (IF approved).

REGULATIONS AND STANDARDS

39. AS/NZS 5139:2019 AS NZS 5139 2019 specifies requirements for general installation and safety requirements for battery energy storage systems (BESSs), where the battery system is installed in a location, such as a dedicated enclosure or room, and is connected with power conversion equipment (PCE) to supply electric power to other parts of an electrical installation. How is this standard being addressed?
40. AS/NZS 3000:2018: Provides guidelines on electrical installations, emphasizing the need to avoid hazardous locations, such as near gas appliances .GSES How is this standard being addressed?

41. Please supply (ELF)EMF and (RF)EMF assessment results, showing meet exposure limits, standards and regulations of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)

CUMULATIVE IMPACTS

42. What are the economic and social benefits to the community?
43. Please supply a visual impact of the BESS site, from street level, an elevated view from the compass points in Kurnell, Potter Point, Woollooware Bay, Cronulla Point, an elevated view from The Esplanade Cronulla / Shark Island. What will be the visual impact on the coastline? How many shipping containers comprise a 3800MWHH BESS? What is the visual impact?
44. How will you ensure that lithium and cobalt in the BESS are not sourced from mines linked to child labour and environmental devastation? Please provide the sources for these materials.
45. What supply chain transparency measures are in place to verify that battery production avoids exploitation, given reports of unsafe working conditions in global mining operations?
46. How do you justify the environmental cost of battery production, which emits more CO₂ than petrol cars, when promoting the BESS as a sustainable solution?
47. What steps will Ampol take to address community concerns about supporting industries with ethical violations, given Kurnell's history of valuing community trust?
48. How will the BESS lifecycle, including disposal, avoid contributing to global waste issues, given that 98% of Australian lithium-ion batteries go to landfill?
49. Why are we pushing the boundaries when it comes to complying to Australian Standard AS5139, which recommends setbacks greater than 500m for BESS to protect habitable areas?
50. What measures will prevent noise and aesthetic impacts, which led to the rejection of the Cults BESS site, from affecting Kurnell residents' quality of life?
51. How will Ampol mitigate the psychological impact on residents living near a BESS, given fears of fires or explosions, as expressed in Dederang, Victoria?

52. What independent audits will ensure compliance with safety and environmental standards, given Ampol's history of environmental issues at Kurnell?
53. Given Ampol's 2022 Kurnell fuel spill, described as an "environmental disaster", how can the community trust this project to be safely managed considering the known fire risks?
54. What improvements have been made since the 2018-ongoing PFAS contamination at Kurnell, which continues to migrate off-site via groundwater? Has the effect of run-away been taken into account, and will it make matters worse?
55. How will BESS safety protocols exceed those of the Kurnell Terminal, where a 2017 asbestos containment cell required long-term monitoring due to health risks?
56. Why should residents trust Ampol's emergency response for a BESS fire, given the 2022 spill's delayed containment, which left residents uninformed until 6:30am. What would be the health impact to residents if the same happened with toxic fumes due to a BESS fire?
57. How will Ampol address the community's perception of poor corporate responsibility, as voiced in 2022, to ensure confidence in managing a high-risk BESS near homes?
58. Perhaps the guarantee of safe operations, once promised, should be supported by a massive penalty fund for any failure to meet that promise.
59. With no Western Sydney Airport Fuel line - would it be anticipated that the fuel for the new airport be collected by trucks via Captain Cook Drive?
60. During normal operations what are the expected operating gas & emf emissions from the proposed BESS?

COMPENSATION

61. As you are increasing the risk to residents, how will you compensate each and every land owner in Kurnell? What compensation will we receive in the event of an incident?
62. How will landowners be compensated for the depreciation of land values due to the proposed risks of the development?
63. Will Ampol compensate for any increase in our home insurance premiums due to the increased risk they will cause?

64. What sort of insurance compensation would be provided in the event of 2,500 plus residents claiming respiratory ailments or worse health issues, not including residents of neighbouring suburbs. Point to note: the prevailing winds in the Sydney area are North Easterly and Southerly potentially affecting Cronulla districts and Eastern suburbs.

TRANSPORT / TRAFFIC

65. Please provide a full traffic management plan, including the proposed Bidhiinga Beach development, the BESMAW development.
66. How many vehicle movements are we to expect for fuel, battery and infrastructure transport.

COMMUNITY

67. How was the community working group established? Who was invited and how was the group selection advertised within the community?
68. As we drive out of Kurnell on our one lane road behind a large line of cars blocked by a truck doing well below the speed limit do you understand and acknowledge the trust deficit that you have created over the last few years starting with the spill in 2022 followed by the underhanded sale of what could've been community land along with residents still suffering from the effects of the spill in their backyard as well as odours still being emitted from your site as recently as two weeks ago when it is clear that as per your license to operate, you are not allowed to emit odours, do you understand and acknowledge that the community and more specifically the Residents Incorporated Association is vehemently opposed to the BESS project based upon the fact that we cannot trust your organisation to look after us as your neighbours?

BIODIVERSITY - PROXIMITY TO TOWRA POINT

69. Why is a site so close to the ecologically sensitive Towra Point Nature Reserve, when industrial zones farther from protected wetlands could minimise environmental risks?
70. What specific grid or infrastructure constraints necessitate placing the BESS, given the potential for runoff or fire-related contamination affecting Towra Point's wetlands?

71. How does the proposal justify its location when sites like Ashted Common, rejected for proximity to a Site of Special Scientific Interest, highlight the risks of BESS near protected ecosystems like Towra Point?
72. What measures ensure the BESS won't exacerbate existing threats to Towra Point, such as pollution and weed infestation, previously worsened by the Kurnell Refinery's 31 oil spills between 1957 and 1987?
73. How does the proposal align with Australia's Ramsar Convention obligations to protect Towra Point's wetlands, given the risk of chemical leaks or fires disrupting migratory bird habitats?
74. What studies have been conducted to assess the risk of toxic fume dispersion from a BESS fire affecting Towra Point's mangroves, seagrasses, and migratory birds, as seen in the 2025 Moss Landing fire's impact on nearby residents?
75. How will construction activities, including heavy vehicle movements, avoid disrupting Towra Point's delicate wetlands, given the reserve's history of erosion from human-induced activities like sand mining?
76. What containment measures will prevent chemical runoff from battery leaks or fire suppression efforts from entering Towra Point's waterways, which support critical fish nurseries and seagrass meadows?
77. How will the BESS avoid contributing to weed infestation, like lantana, which has historically spread into Towra Point from adjacent sites, given the construction's potential to introduce invasive species?
78. What biodiversity net gain enhancements are planned to offset the BESS's impact to Towra Point, and how do they compare to Ashted Common's rejected proposal, where natural succession was deemed superior?

OTHER RELEVANT NSW LEGISLATION

79. What specific WHS measures will prevent injuries to workers and firefighters, given the 2019 Arizona BESS explosion that hospitalised eight responders due to toxic fumes and blast injuries?
80. How will the BESS design address thermal runaway risks, which caused the 2021 Victorian Big Battery fire, to ensure no toxic fume exposure for nearby workers or residents?
81. The prevailing winds are typically SE or NE which would result in toxic fumes blowing directly through either Kurnell or Boat Harbour. Has this been taken into account when it comes to the proposed BESS site in relation to surrounding housing?

82. What emergency response protocols are in place to protect firefighters and residents, considering the 2025 Moss Landing BESS fire required days to extinguish and expose responders to hazardous conditions?
83. How will the emergency response protocol address the single road in and out of Kurnell in the event of a fire. Has the proximity to the exi been taken into account?
84. I've read that BESS cooling systems exceed 55 decibels. Do you know how loud these fans will be? How will noise be mitigated to prevent WHS issues like stress or sleep disruption for workers and nearby residents?
85. What training and PPE will be provided to workers handling lithium-ion batteries, given the risk of chemical burns and respiratory harm from potential leaks or fires?
86. What financial assistance will be given to Kurnell residents to better prepare their homes in the event of a fire to provide a 100% guarantee toxic fumes can be avoided until evacuation can be arranged?