



Battery Sorting and Transfer Station Fact Sheet

About The Development

The proposal is to install a battery sorting and transfer station within an existing warehouse within the Kings Park Industrial Estate. The facility will receive and sort up to 900 tonnes per year of waste household batteries collected through the B-cycle battery recycling scheme.

The proposed development will involve the installation of a specialised x-ray sorting machine specifically designed to sort small, handheld batteries. The proposed development will also include installation of a fire detection, containment, and suppression system designed to minimise the risks associated with lithium batteries. Once sorted, the batteries will be transported to licensed battery recycling facilities.

The proposed development will only receive those batteries collected through the B-cycle scheme, being handheld domestic batteries. These include regular AA (and other size) batteries, button batteries, rechargeable batteries (up to 5kg), and other batteries that can be easily removed from a product by the consumer (e.g. from power tools and digital cameras). The B-cycle scheme includes Nickel-Cadmium, Nickel-Metal Hydride, Alkaline, Zinc-Carbon, Lithium Ion, and Lithium Metal batteries. The facility will not collect large lithium batteries such as those from electric vehicles or household battery storage cells.

The battery sorting and transfer station will help provide a safe and sustainable solution for the sorting and recycling of batteries, to benefit society and the local environment.

Why is a Battery Sorting Facility Needed?

Batteries can cause fires or leak toxic materials (including heavy metals) if they are not properly stored

and handled. Consequently, waste batteries present a significant risk when placed into household rubbish or recycling and are a leading cause of fires within waste collection trucks, waste processing facilities, and landfills. Heavy metals from batteries can also leak into the environment from batteries disposed of to landfill. The costs associated with improper disposal, including the costs incurred during fires or as a result of soil and water contamination from landfills, are currently largely borne by local governments.

Australia has one of the lowest recovery rates for non-automotive batteries in the world, estimated at only 3%. The demand for batteries, particularly lithium batteries, is expected to increase significantly in the coming years. Waste lithium batteries alone are expected to increase from less than 25,000 tonnes per year at present, to up to 186,000 tonnes per year by 2036. Without an efficient and effective recycling system, the problems and costs associated with waste batteries will skyrocket.

Current Status Of The Project

An application was made to obtain the Secretary's Environmental Assessment Requirements (SEARs) under Section 5.16 of the Environmental Planning and Assessment Act 1979. The SEARs were issued on 21 April 2023, and the process of preparing an Environmental Impact Statement (EIS) in response to the SEARs is underway.

Consultation with the relevant local and State government authorities, service providers, community groups and surrounding landowners and occupiers that could potentially be impacted by the proposed development is underway. Any feedback received during the consultation process will be included in the EIS and development application. Please see the last page on how to provide comment.

Is The Battery Sorting Process Dangerous?

A number of battery types including Nickel-Cadmium, Nickel-Metal Hydride, and Lithium batteries are classified as Dangerous Goods under the Australian Dangerous Goods Code. This means there are strict requirements for the storage, handling, and transport of these batteries. For Alkaline, Nickel-Cadmium and Nickel-Metal Hydride, the main risk arises from leaking batteries coming into contact with skin. This will be minimised by using an automated process for sorting of batteries.

Lithium batteries are well-known for their fire risk, including their ability to self-ignite, even when discharged. Fires involving lithium batteries cannot be easily extinguished by standard fire fighting methods (e.g. with water), and may release toxic, flammable and explosive gases. Consequently, there are strict requirements for the handling and storage of these batteries.

To address the risks associated with lithium batteries, the following will be included as part of the proposed development:

- Fire-resistant wall and roof panels around lithium battery storage areas;
- A fire detection system including video surveillance, heat-detecting cameras, and smoke detection;
- A fire suppression system including extinguishers specifically developed for use with Lithium batteries (these extinguishers use an encapsulating agent to suppress the fire, reduce toxic gas emissions and rapidly cool the battery to reduce the risk of reignition); and
- Work with Fire & Rescue NSW to prepare a fire management plan for the facility.

The x-ray sorting line is a purpose-built, high tech and fully enclosed system that uses x-ray technology to sort batteries by their chemistry. Batteries are fed through the x-ray system via an enclosed conveyor belt. The level of x-ray emission at a distance of 10cm from the source is well-below typical background levels.

As part of the EIS process, a full analysis of the risks and hazards associated with battery storage and handling, and the use of the x-ray sorting line will be done.

Who is Assessing the Application?

The consent authority for the development will be Sydney Central City Planning Panel.

How will the Local Environment be Protected?

The facility will include the following controls to protect the environment:

- Battery sorting will be conducted using best-practice technology within an enclosed building
- Bunding will be installed within the battery sorting and storage areas to contain any spills
- The site is constructed from concrete to protect underlying soils and groundwater; and
- A detailed Environmental Management Plan will guide all operations to ensure best-practice procedures and

How Will the Project Benefit the Local Community?

The proposed development will receive and sort B-cycle batteries according to their chemistry. It will also remove damaged batteries that can't be recycled and other contamination from the waste stream. The sorted batteries can then be transferred to an appropriate facility for recycling. Receiving pre-sorted batteries with no contamination will improve the efficiency and safety of the recycling process, allowing the recyclers to increase their throughput. Any batteries that are not suitable for recycling can be transferred to an appropriate facility for safe disposal.

Will Neighbours be Affected?

Neighbours will not be affected by the installation or daily operations of the proposed development. An Environmental Impact Statement will be prepared for the development application. This will assess hazards and risks of traffic and access, noise, air quality, soil and water, and waste issues associated with the proposal. The investigations will include identification of measures to avoid or minimise impacts on human health or the environment. The proposed recycling facility will be located within the Kings Park Industrial Estate in close proximity to a range of manufacturing and warehousing premises. The nearest residential properties are located approximately 350m from the proposed development. A range of voluntary measures will be implemented to ensure the site operates within required standards. No impacts on nearby residences are expected.

How Can I Provide Feedback?

You can provide your feedback on the proposed development by contacting Jackson Environment and Planning Pty Ltd:



admin@jacksonenvironment.com.au



02 8056 1849

More information on the project can be found at
<http://www.jacksonenvironment.com.au>.

We greatly appreciate your feedback on this project which will benefit both the environment and the local economy.



JACKSON
ENVIRONMENT AND PLANNING