



The R3 Program

Purpose

Green Cubes Technology is focused upon efficiency and improving power systems used globally. The focus of Green Cubes is to provide a great benefit to the environment. To keep this focus, Green Cubes has developed the following policy and direction for the recovery, reuse, and recycling of our industrial power lithium iron phosphate (LFP) battery systems. The policy helps to provide direction to the end users of our battery systems and inform them of the activities performed in the R3 policy. The energy savings due from the high charge acceptance efficiency of the LFP, the long battery life, and R3 truly make Green Cubes Technology's LFP battery systems a "GREEN BATTERY".

Recover

The need to have a plan for used batteries being returned to Green Cubes is a key step in the R3. The return of the batteries needs to be a simple process which end customers can easily follow. The current process is to provide a Certificate of Return (COR) to the end customers. The COR states that Green Cubes will accept the battery return, and depending on the agreement provide for shipping of the battery system back to Green Cubes. The COR also states conditions which may void the return.

Reuse

The LFP batteries have a long cycle life. Depending on the end customer usage, the recovered LFP batteries may have significant energy remaining. While the energy is too low

for high usage industrial applications, it's well suited for applications such as Solar Energy Storage, Recreational LEVs for examples. Green Cubes has designed the battery systems to allow for easy removal of the lithium cells which are repurposed for the other applications. Green Cubes proprietary BMS system is utilized to manage the repurposed cells in the other market applications. Estimates are that more than 30% of the original energy can be utilized in the lower demand systems.

In addition, the battery systems have key components such as the steel battery tray, ballast, and steel compression plates which can be refinished and reused with new battery system. The reuse of these major components provides a recyclability content for the batteries.

Recycle

The R3 plan sets a path to ensure the major battery components are reused but the LFP cells will ultimately reach an end of life (EOL). Green Cubes ensures that agreements are in place with our industrial cell manufacturers so that Green Cubes may return the EOL cell back to the manufacturer. The LFP chemistry is comprised completely of non-toxic materials (main items being Lithium salts, Iron, and Phosphate) which leads to ease of handling. The goal of returning the cells to the manufacturer is to allow them to reuse the materials in their new cell manufacturing process.

ABOUT GREEN CUBES TECHNOLOGY

Green Cubes Technology harnesses over 30 years of industry experience to ensure we design, develop and deliver solutions for the most challenging energy needs. We offer battery technology innovation, application design and performance management to drive productivity, scalability and sustainability.