Battery Recycling Plan

Tesla's Lithium-ion batteries, such as those used in Tesla Energy Products, contain valuable materials that can be recovered and recycled for further use in battery and other applications. Tesla strongly encourages recycling and attempts to retrieve all batteries that have reached end of life (EOL) for purposes of recycling. Tesla has developed, and is working to further improve, a method for recycling our products. Currently, Tesla's Lithium-ion battery recycling process involves the following steps:

1. When a Tesla product must be decommissioned, it is transported to a Tesla facility for disassembly.
2. Batteries are discharged to a low state-of-charge, and modules are removed from packs. Some valuable components are removed from modules for scrap metal recycling by qualified Tesla employees.
3. Modules are then packaged for shipment to a North American processing partner in accordance with all applicable shipping regulations. Tesla has confirmed that at least two established North American recycling processors are capable of recycling Tesla battery modules.
4. At the processing facility, modules are rendered inert and deconstructed. Constituent metals are recovered in separate processes.

Tesla modules are composed of small cylindrical form factor cells, similar to the cells used in many laptops and consumer electronics. Tesla lithium-ion batteries do not contain heavy metals such as lead, cadmium, or mercury. Thus, processors use techniques developed for recycling of consumer electronic device battery packs to recycle Tesla modules.

The materials recovered from Tesla modules include nickel, cobalt, copper, aluminum, steel, and lithium. These output products are further refined and used in new applications.
If disposal is required without return to Tesla, entire battery systems can be recycled by a lithium-ion battery recycling facility. A number of North American recycling processors are able to deconstruct large format battery packs, much like Tesla products. Note that Tesla Powerwall and Powerpack systems are designed to allow replacement of modules, which also ensures that full system deconstruction is straightforward to accomplish.