



Senate Committee on Energy and Environment
Oregon State Capitol
900 Court St. NE
Salem Oregon 97301

February 2, 2023

Dear Chair Sollman, Vice-Chair Findley, and members of the committee,

The Oregon Solar + Storage Industries Association (OSSIA) is a trade association founded in 1981 to promote clean, renewable, solar technologies. OSSIA members include businesses, non-profit groups, and other solar and storage industry stakeholders. We provide a unified voice of the solar industry and focus exclusively on the solar value chain; from workforce development to permitting, advocacy, policy, and regulation for manufacturing, residential, commercial, community, and utility scale solar projects on the local, state and regional level.

OSSIA appreciates the attention to this issue by the committee and agrees that safe disposal, recycling and reusing batteries are important things to examine. There are two pieces of good news when it comes to battery disposal, recycling and re-use. First, some research has already been done and we can benefit from the work of other states. California completed [a study on electric vehicle \(EV\) battery recycling in 2022](#)¹ stemming from the work of an advisory group formed in 2019. The report is nearly 150 pages and covers other EV battery policies and programs in other states. In 2022 [Ohio's Department of Health released a report](#)² that includes a discussion of energy storage end-of-life.

Ohio's report includes the second piece of good news; these batteries have a long life-span, between 10-20 years. Therefore, there is not an urgent need to examine end-of-life, since most batteries still have 5-15 years left in their usefulness. It's worth quoting a few paragraphs of that report here:

An average battery system will last for 10 to 20 years after initial installation, after which it will be decommissioned for recycling, or landfill disposal.

Lead batteries are widely recycled. Thanks to its long-established collection and recycling scheme, almost all used lead batteries are collected at end-of-life for recycling – the highest of all battery technologies. Lead batteries exemplify the fundamental principles of eco-design:

¹ [Lithium-ion Car Battery Recycling Advisory Group Final Report](https://calepa.ca.gov/lithium-ion-car-battery-recycling-advisory-group/), <https://calepa.ca.gov/lithium-ion-car-battery-recycling-advisory-group/>

² [Ohio Department of Health Battery Energy Storage Summary and Assessments, https://odh.ohio.gov/wps/wcm/connect/gov/07ca70b9-e0a3-478e-9e0f-cedde441568e/ODH+Battery+Summary+Assessment_2022.04.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTW-ORKSPACE.Z18_M1HGGIK0N0JO00Q9D-DDDM3000-07ca70b9-e0a3-478e-9e0f-cedde441568e-o3S-xNa](https://odh.ohio.gov/wps/wcm/connect/gov/07ca70b9-e0a3-478e-9e0f-cedde441568e/ODH+Battery+Summary+Assessment_2022.04.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTW-ORKSPACE.Z18_M1HGGIK0N0JO00Q9D-DDDM3000-07ca70b9-e0a3-478e-9e0f-cedde441568e-o3S-xNa)

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they are designed to be recycled at end-of-life with more than 90% of their material being recovered. The average lead battery made today contains more than 80% recycled materials, and almost all of the lead recovered in the recycling process is used to make new lead batteries.

Lithium ion batteries are currently recycled at a rate of 5% with the remainder being sent to landfills for disposal. The rate of the percent recycled should improve during the next five years with the investment and planning for lithium ion battery specific recycling centers, and the U.S. Department of Energy's investments into research associated with recycling and battery collection.

The sentiments of SB 64 are very much in line with what U.S. DOE and other states are considering. It may be possible for Oregon to take advantage of work already being done on this important topic.

Thank you for the opportunity to explore this issue.

Sincerely,

A handwritten signature in black ink that reads "Angela Crowley-Koch". The signature is fluid and cursive, with the first name "Angela" being the most prominent.

Angela Crowley-Koch
Executive Director