Circulor Comment: The Enhancement and Standardization of Climate-Related Disclosures for Investors

I. Introduction to Circulor

Circulor is a global technology business that enables customers to gain visibility into their supply chains, demonstrate domestic, responsible, and ethical sourcing, and prove their ESG and GHG goals. Circulor has extensive experience with electric vehicle (EV) battery materials, tracking lithium, copper, graphite, manganese, cobalt, mica, and nickel.

Currently, Circulor has the most mature, proven, and complete technology solution available to track high-risk and high-human impact materials used within manufacturing and recycling supply chains. Rather than following paperwork as a proxy for the materials, Circulor tracks materials as they change state within and throughout the manufacturing processes.

With Circulor, customers gain insight into the flow of their materials deep into the tiers of their supply chains. This knowledge and greater predictability enables companies to make data-driven decisions on their suppliers, selecting those that help them achieve ESG and business objectives while providing intelligence and the opportunity to remove suppliers that create greater business risk.

Attached to the flow of materials, Circulor can attribute Scope 1, Scope 2, and Scope 3 emissions data to give a product or material a CO₂ carbon footprint. The technology also attributes relevant ESG certifications and standards that suppliers upload to the system and assign to their portion of the flow of material.

All in all, Circulor’s integration into supply chains can help companies improve performance, minimize risk, ensure responsible sourcing, and strategically restructure supply chains to reduce emissions.

The information included in this response to the Securities and Exchange Commission’s proposed rule on the enhancement and standardization of climate-related disclosures for investors is intended to provide the SEC and U.S. entities insight into technology solutions available today that enable the creation of more predictable, efficient, and sustainable supply chains.

II. Circulor Process

Circulor provides in-depth tracking and tracing of complex industrial supply chains. Circulor’s technology assigns a digital identity to a commodity and tracks the supply chain data and embedded carbon at each stage of production to provide an immutable record of provenance, activity, compliance, and potential anomalies.

By using metrics that include mass balance, elapse time, proof of location, and scan points throughout the refining and manufacturing process, Circulor’s technology connects input of materials with the output of the product at each phase. The digital twin—or virtual identity—that Circulor creates of the commodity is continuously informed in the process, even while the physical material changes state.

On top of the commodity tracking, Circulor can assign direct, indirect, and attributable GHG emissions through dynamic carbon accounting. By enabling measurement of ESG impact based on the actual flow
of materials, it provides a much richer view of the CO₂ attribution from each supply chain participant to batch level.

Taken together, Circulor customers can see:

- the flow of materials in their supply chain,
- potential anomalies and structural changes that may occur within deeper tiers of their supply chains,
- continuous progress toward fulfilling ESG and GHG emission goals,
- full intelligence to make decisions and ensure responsible and sustainable sourcing.

III. Sample of Related Projects
The following selection of projects demonstrates Circulor’s capabilities in tracking various materials and their direct, indirect, and inherited emissions throughout the production processes.

- **Net-Zero Lithium**: Circulor is working with Vulcan Energy to ensure the traceable production of zero-carbon lithium for EV batteries and renewable energy technologies by 2024. The collaboration will allow Vulcan to develop what’s expected to be the world’s first fully traceable, transparent, and zero-carbon lithium product for energy storage that is extracted and consumed in Europe.

- **Creating a Carbon-Neutral Car**: Polestar is working with Circulor to spearhead a movement of transparency and greenhouse gas reductions throughout the automotive industry. Circulor’s ability to dynamically track and attribute CO₂ across the supply chain will help enable Polestar to reach its goal of a climate-neutral car by 2030.

- **Expanding EV Tracking to the Construction of Gigafactories**: Britishvolt, a lithium-ion battery producer based in the UK, is working with Circulor to track its supply chains and emissions all the way from the building materials of its factory to end-of-life disposal and/or reuse of battery materials. This 20+-year project is the first of its kind in tracking not only the supply chains for the batteries, but the construction, maintenance, and societal impact of the facility in Northumberland, UK.

- **Partnering on a Battery Passport**: Circulor is a proud partner, as the technology implementor, of Germany’s “Battery Pass” project, which was announced in April 2022 by Germany’s Federal Ministry for Economic Affairs. The announcement marks the beginning of a 3-year R&D project aimed at creating a complete battery pass to enable the buildup of a responsible, sustainable, and circular battery economy in Europe. Circulor will lead the demonstrator portion of the project, standardizing a dataspace that can manage the technical content and digital identities of batteries that are placed into service on the market.

IV. Closing Statement
Circulor is grateful for the opportunity to submit this response. Should you have further questions, please contact Ellen Carey, Vice President for Public Affairs, at...