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By SUPPLY CHAIN CONNECT STAFF

Pooling their Efforts in the Name of Semiconductor Supply Chain Decarbonization

Google, ASM and HP join industry program focused on semiconductor supply chain decarbonization.

As global demand for semiconductors increases, the sector's carbon footprint continues to grow, making it imperative for the industry to collaborate to achieve a more sustainable future. Through industry-wide collaboration, Catalyze addresses one of the most notoriously challenging aspects of decarbonization: Scope 3 emissions.

According to the EPA, Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain. Scope 3 emissions include all sources not within an organization's scope 1 and 2 boundary. The scope 3 emissions for one organization are the scope 1 and 2 emissions of another organization. Scope 3 emissions, also referred to as value chain emissions, often represent the majority of an organization's total greenhouse gas (GHG) emissions.

Launched in July by Schneider Electric, Catalyze is a partnership program aimed at accelerating access to renewable energy across the global semiconductor value chain. Interest in Catalyze has grown since the new initiative was rolled out. Intel and Applied Materials, Inc., were the program's inaugural corporate sponsors.

This month, Schneider Electric announced that Google, ASM and HP all joined the Catalyze program for semiconductor supply chain decarbonization. "Scope 3 emissions have proven a challenge to track and manage," Schneider said in a press release, "but the Catalyze program enables companies and their suppliers to engage and collaborate in their energy transition and decarbonization."

What is Catalyze?

Catalyze encourages suppliers from throughout the semiconductor industry ecosystem to collaborate to transition their value chain to renewable sources of energy. Schneider says participants are encouraged to make commitments to decarbonization and take collective action through the procurement of renewable energy, leveraging the purchasing power of buyer cohorts.

The Catalyze program works to:

- Combine energy purchasing power across the semiconductor value chain to accelerate the deployment of renewable energy projects.
- Provide suppliers—who may not have the capacity on their own—with the opportunity to participate in the market for utility-scale power purchase agreements (PPAs).
- Enable any company that supplies to a Catalyze sponsor to join—across the IT supply landscape.
- Increase awareness of the availability of renewable energy in specific global regions where the semiconductor value chain is operational.
- Leverage numerous educational and digital technology platform engagements to drive measurable actions in supply chain decarbonization.

The Transition is Imperative

The energy transition within the value chain is imperative: According to a recent study by the SEMI Semiconductor Climate Consortium, the semiconductor industry's carbon footprint was equivalent to 500Mt of CO2 in 2021—with 16% coming from the supply chain. By transitioning suppliers onto lower-carbon sources of energy and supporting them in other decarbonization actions like electrification, Schneider says the industry can reduce its Scope 3 emissions.

"We are delighted to welcome Google, ASM, and HP to the Catalyze program. Their decision to join supports the ambition to accelerate the decarbonization of supply chains," said Schneider Chairman Jean-Pascal Tricoire, in the press release. "Scope 3 emissions have proven a challenge to track and manage, but the Catalyze program enables companies and their suppliers to engage and collaborate in their energy transition and decarbonization."

Google's Michael Terrell said "no company can do it alone" when it comes to transitioning to carbon-free semiconductor manufacturing. "We are excited to become a founding sponsor of the Catalyze program," Terrell added, "and look forward to working with our fellow sponsors and suppliers to expand the use of clean energy across this critical area of Google's supply chain."