

August 29, 2023
JX Metals Corporation

Green Enabling Partnership with Intel to Produce Sustainable Copper and Promote Its Wider Use

JX Metals Corporation (President: Hayashi Yoichi; “the Company”) has signed a memorandum of understanding with Intel Corporation (CEO: Pat Gelsinger; “Intel”) on forming a Green Enabling Partnership. Targeting evolution and dissemination of Sustainable Copper¹ announced in August 2022, the Company will collaborate with Intel, a global leader in the semiconductor industry that is well known for its active efforts on sustainability initiatives, to encourage recycling of copper, essential for achieving carbon neutrality, and realize a circular economy.

Copper is used as a key material in today’s advanced semiconductors and plays an important role in enabling higher levels of integration and greater speed. As the top supplier of sputtering targets² used in copper interconnects formation processes, the Company supports production in the semiconductor industry.

The Company was recognized with an Intel EPIC Distinguished Supplier Award in 2023³. Specifically, the Green Enabling Partnership will encourage the evolution and dissemination of Sustainable Copper through two of the Company’s four key initiatives:⁴ Initiative 2: Increasing recycling ratio and Initiative 3: Promoting responsible procurement and other ESG initiatives.

In connection with Initiative 2, increasing the recycling ratio, the Company has been working with Intel on the recycling of copper resources in the field of sputtering targets. Intel and the Company are considering recycling other copper materials used in semiconductor manufacturing.

In pursuit of Initiative 3, promoting responsible procurement and other ESG initiatives, in December 2022, the Company became the first refinery operator in Japan to be awarded The Copper Mark⁵ under a framework demonstrating responsible production in the copper industry.

As part of integrated management of advanced material, metal refining & smelting, recycling, and resource business, the Company aims to encourage the evolution and dissemination of Sustainable Copper through the measures set out in its Sustainable Copper Vision and contribute to the realization of a sustainable society.

¹ For details on Sustainable Copper, see the news release dated August 3, 2022, [“Sustainable Copper Vision: JX Metals Aims to Supply Sustainable Copper”](#) and its attachment, [“Sustainable Copper Vision: JX Mining & Metals’ approach towards realization of “Sustainable Copper””](#).

² Materials used in thin-film-forming technology called sputtering. The sputtering target is bombarded with argon ions in a sputtering machine. This causes atoms or molecules to be emitted, which are deposited and form a thin film on a silicon wafer or other substrate. See the following reference for details:

https://www.jx-nmm.com/english/products/sputtering/about_sputtering.html

³ The Company most recently received this award in 2023. For details, see the news release dated June 23, 2023, [“JX Nippon Mining & Metals Corporation Earns Intel's 2023 EPIC Distinguished Supplier Award JX Nippon Mining & Metals Corporation is one of only 22 Distinguished Award recipients across Intel's global supply chain”](#).

⁴ The four initiatives to encourage the evolution and wider use of Sustainable Copper are:

<p>1 Reduce CFP</p>  <p>Reduce CFP in Copper concentrates mining and the transportation value chain</p> <ul style="list-style-type: none">● Convert construction equipment used in mines to electric power● Use electricity derived from renewable sources● Improve efficiencies and optimize transportation, etc.	<p>2 Increase recycling ratios</p>  <p>Develop technologies to increase the ratio of recycled raw materials for copper products and bolster raw materials collection systems</p> <ul style="list-style-type: none">● Develop technologies to increase the ratio of recycled raw materials● Expand facility capacity to increase recycled raw materials collection, etc.
<p>3 Promote responsible procurement and other measures</p>  <p>Engage in a wide range of ESG measures, including sustainable sourcing, and certification acquisition</p> <ul style="list-style-type: none">● Pursue measures that consider and encourage global environmental conservation, human rights, and contributions to local communities● Acquire Copper Mark and other certifications that meet ESG standards set by the International Copper Association (ICA)	<p>4 Form Green Enabling Partnerships</p>  <p>Evolve and gain wider use of sustainable copper</p> <ul style="list-style-type: none">● Form partnerships with companies that work together to promote sustainable copper, and accelerate the transition to decarbonized and circular economies● Engage in product and scrap collection, raw materials reuse, and joint technology development with partners, etc.

⁵ An assurance framework set up by the International Copper Association (ICA). For details, see the news release dated January 11, 2023, [“JX Metals Smelting Awarded the Copper Mark for Saganoseki Smelter & Refinery and Hitachi Refinery”](#).