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Press Release

Company Name: Idemitsu Kosan Co., Ltd.
Representative Director & Chief Executive Officer:
Shunichi Kito
(Company Code: 5019, TSE Prime Market)
Contact person:
Daisuke Mogi, General Manager,
Investor Relations Office, Finance & Accounting
Department (TEL: +81-3-3213-9307)

Idemitsu invests in Vecco, which promotes a vanadium project in Australia
Contributing to the stable supply of vanadium that is seeing soaring prices

Idemitsu Kosan Co.,Ltd. (Head Office: Chiyoda-ku, Tokyo; Representative Director, President and Chief Executive Officer: Shunichi Kito, hereinafter referred to as “Idemitsu”) made an investment*₁ in Vecco Group Pty Ltd. (head Office: Brisbane), which promotes a vanadium project in Australia.

Vecco is developing a project related to a vanadium mine located at Julia Creek (Project name: Debella Project, hereinafter “Debella PJ”) and an electrolyte plant in Queensland, which will produce electrolytes for redox flow batteries*₂ using vanadium. Through this project, Idemitsu aims to build a value chain for local production and local consumption that includes the mining of vanadium, the refining of vanadium pentoxide, and the production of vanadium electrolyte, thereby contributing to the stabilization of the supply of vanadium and the creation of demand in Australia, which is geopolitically stable.

Under an energy plan announced by the Queensland Government in September (formal name: Queensland Energy and Jobs Plan), the state targets increasing the ratio of renewable energy to 80% by 2035 (21% as of 2022), with major investments scheduled to be made in areas such as the development of power supply using renewable energy sources, the improvement of power grids, and power storage facilities that regulate supply and demand. Large redox flow batteries utilizing vanadium produced in Queensland are expected to be introduced, in particular, to power storage facilities.

As the trend of energy conversion to decarbonization accelerates worldwide, Idemitsu has been promoting our participation in the critical mineral mining business and knowledge-gaining efforts by leveraging the business foundation Idemitsu has built up through about 40 years of coal mining operations in Australia. We see the business foundation that Idemitsu, a Japanese company has, is leading the transition from fossil fuels to renewable energy, and this is a source of business opportunities in Australia. We will continue proactively responding to energy transition in Australia and creating low-carbon and decarbonization businesses.

[Project Overview]

1. Project name:

Debella Project

2. Resources to be mined and produced:

Main products: vanadium pentoxide (V₂O₅) and vanadium electrolyte

Accompanying by-product: High-Purity Alumina (HPA)*₃

3. Location of the mine:

Julia Creek, Queensland (650 km west of Townsville)

4. URL: <https://veccogroup.com.au/operations/debella-v-hpa-project/>

*1 Idemitsu made the investment via Idemitsu Minerals Australia Pty Ltd. (100% owned by Idemitsu Australia), which was established by Idemitsu Australia Pty Ltd. (head office: Brisbane), a subsidiary in Australia of Idemitsu, to promote a critical mineral mining business.

*2 Vanadium redox flow battery

A storage battery that is charged and discharged using the redox reaction of ions such as vanadium ions. While other batteries are charged and discharged using chemical changes in the electrodes, the redox flow battery is charged and discharged using chemical changes in the electrolyte (redox reaction). Its electrodes and electrolyte experience almost no deterioration, achieving a long life span. In addition, it has other characteristics suitable as a storage battery for power supply systems: it excels in safety because it does not use combustible materials and can be used at room temperature.

*3 High-purity alumina (HPA)

Widely used in single-crystal materials such as light-emitting diodes, sapphire for watch windows, high-strength ceramic tools, and abrasives for magnetic tapes. In recent years, demand for HPA has been expanding in fields where high growth is expected, such as the energy, automobile, semiconductor, and computer fields.

[Reference]

Overview of Vecco

Name: Vecco Group Pty Ltd.

Location: 40 Creek St, Brisbane City QLD 4000, Australia

Managing Director: Thomas Northcott

Business: Exploration and production of vanadium, which is a mineral resource, manufacturing of vanadium electrolytes and high purity alumina

URL: <https://veccogroup.com.au/>