

Low-Carbon Solutions and Business Development in AU

**Idemitsu Kosan Co.,Ltd.
Coal and Energy Solution Department**

3rd Sep. 2026

Contents

1. About Idemitsu Kosan
2. Overview of Coal and Energy Solution Department
3. Low-Carbon Solutions
4. Business Development in AU

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Our History & Origin of Management

Our History

- Idemitsu Kosan was founded in 1911 starting with the petroleum sales business.
- Idemitsu Kosan and Showa Shell Sekiyu were merged in 2019.



Headquarters' first shipment at the time of Idemitsu's founding

The Origin of Management

人間尊重

Ningen-Soncho (Having respect for human beings)

Written by Sazo Idemitsu

These are the words of the founder, Sazo Idemitsu, in his own handwriting. We intend to communicate to the world the importance of "Ningen-Soncho (to be a respected person)," a key tenet of our history for over a century, and unassailable ideals we continue to pass down.



Sazo Idemitsu

(Founder of Idemitsu Kosan)

Idemitsu Kosan Company Overview

- We operate across a diverse range of businesses, including fuel products, basic chemicals, high-performance materials, power and renewable energy, and natural resources, providing a stable supply of energy and materials that are essential to everyday life.
- While strengthening the foundations of our existing businesses, we are expanding into areas with strong medium- to long-term growth potential and pursuing low-carbon and decarbonization initiatives with a view to achieving carbon neutrality by 2050.

The Current Idemitsu Group (Data as of March 31, 2025)

Petroleum

Crude oil processing capacity
825,000 barrels/day^{*1,2}

Fuel oil sales volume in Japan
34 million kl/year^{*3}

Number of service stations
Approx. **6,000**

Basic chemicals

Ethylene production capacity
1 million tons/year^{*2}

Paraxylene production capacity
840,000 tons/year^{*2}

Mixed xylene production capacity
690,000 tons/year^{*2}

Styrene monomer production capacity
790,000 tons/year^{*2}

Functional materials

Lubricant sales volume
1.1 million kl/year

Engineering plastic sales volume
200,000 tons/year

OLED material production capacity
26 tons/year

Power and renewable energy

Power generation capacity
1.68 million kW

– of which, renewable energy
820,000 kW

Resources

Crude oil and gas production volume
26,000 BOE^{*4}/day

Coal production volume
5.79 million tons/year



Business Strategy Policy(Mid-Term Business Plan)

- Achieve sustainable growth through the three themes (GRIT, GROWTH, and CNX) and contribute to the resolution of social challenges

Business strategy for enhancing corporate value

Social challenges

Ensuring energy security

Pursuing an optimal balance of S+3E*1

Balancing the low-carbon / decarbonization of energy and economic development (GX)

Rising demand for energy and materials in overseas growth markets, and increasingly complex supply chains

Diversifying energy and materials needs driven by electrification / ICT

*1 Japan's basic energy policy principle, which aims to achieve energy security, economic efficiency, and environmental sustainability, while ensuring safety as an absolute prerequisite

*2 The power of perseverance garnered through Guts, Resilience, Initiative, and Tenacity

*3 Carbon Neutral Transformation

GRIT*2
Exploiting existing businesses

By persistently strengthening the foundation of our existing businesses, we will work to maintain a stable supply of energy and materials while maximizing earnings and improving capital efficiency

GROWTH
Creating growth businesses

To achieve sustainable growth, we will leverage our strengths and create new businesses in growing markets, including electrification / ICT and overseas

CNX*3
Staging up low-carbon / decarbonization businesses

To achieve CN and contribute to mid- to long-term energy security, we will address economic and technological challenges and commercialize low-carbon / decarbonization solutions

Petroleum

Basic chemicals

Functional materials

Power / renewable energy

Resources

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Business Overview

Coal



GRIT



Black Pellet



CNX

Business Development in Australia

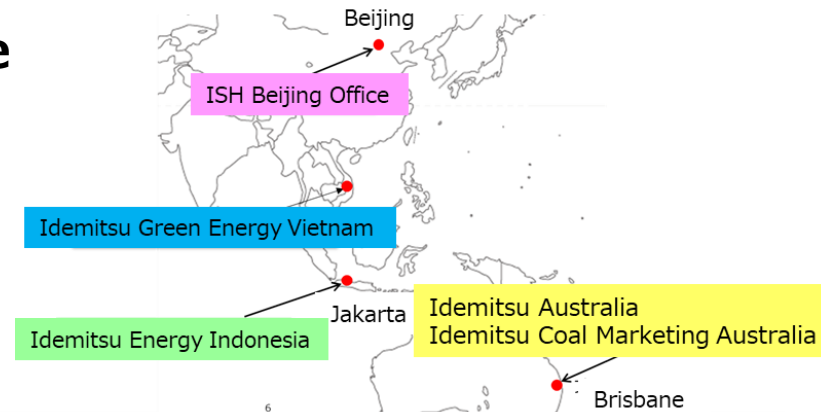


GROWTH

Calcium Carbonate



**GROWTH
CNX**



With around **1,000 personnel*** including local staff, we promote the **stable supply of coal and low-carbon solution business**. Expanding and shifting our business domain **from coal to biomass business and new projects in Australia**.

*A total of around 900 personnel at affiliated companies, including around 120 employees (including expatriates) and directly hired local staff

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Low-Carbon Solutions

Biomass



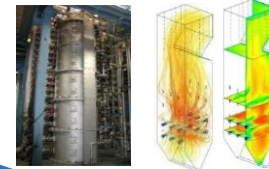
CO₂ Utilization and Fixation (Calcium Carbonate)



idemitsu-R40® Carbon-Neutral Fuel Transition Support Solution



Quality Evaluation & Combustion Performance Prediction



ULTY-V plus® AT

NYK IDEMITSU green solutions Co., Ltd.
郵船出光グリーンソリューションズ株式会社

We provide low-carbon solutions through improvement of coal utilization efficiency and reduction of environmental impact

Biomass Business Supply Chain

Low-Carbon
Solutions
Biomass

Material Procurement



Manufacturing



Idemitsu Green
Energy Vietnam

Logistics



Sales



Tokyo Head Office
West Japan Office

Technical Support, R&D



Coal & Environment Research Laboratory

We Produce and supply biomass fuels that can be co-fired with coal.
We build integrated supply chains—from feedstock procurement to production, logistics, and sales—with local partners in Southeast Asia, North America, and other regions, similar to our coal business.

Biomass Business Supply Chain

World's Largest Scale Black Pellet Plant Starts Commercial Operation
Vietnam's First Commercial Plant With 120,000 ton Capacity to Support Decarbonization

Idemitsu Kosan Co.,Ltd. (Headquarters: Chiyoda-ku, Tokyo; President and CEO: Noriaki Sakai, "Idemitsu") has commenced commercial operation of its newly constructed plant in Gia Lai Province (formerly Binh Dinh Province), Vietnam, to produce black pellets ("BP"), a type of biomass fuel, on October 8. The plant is Vietnam's first commercial scale BP production facility, and with an annual production capacity of 120,000 ton, ranks among the world's largest. BP produced at this plant, branded as Idemitsu Green Energy Pellet™ ("IGEP"), will be supplied as an alternative fuel to coal, primarily to support Japanese coal customers' decarbonization goals.

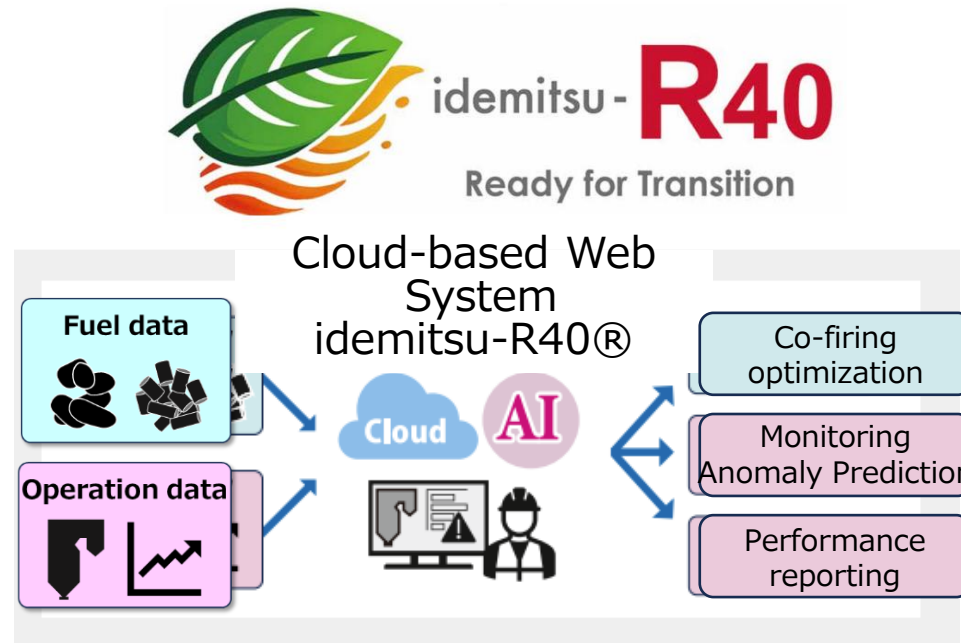


9th Oct. 2025
News Release



**Gia Lai
Province**

CO₂ Reduction and Economic Improvement Solution for Coal-Fired Boilers



■ CO₂ Emissions Reduction

Supporting the transition to CN fuels, including biomass and ammonia

■ Economic and Stable Operation Support

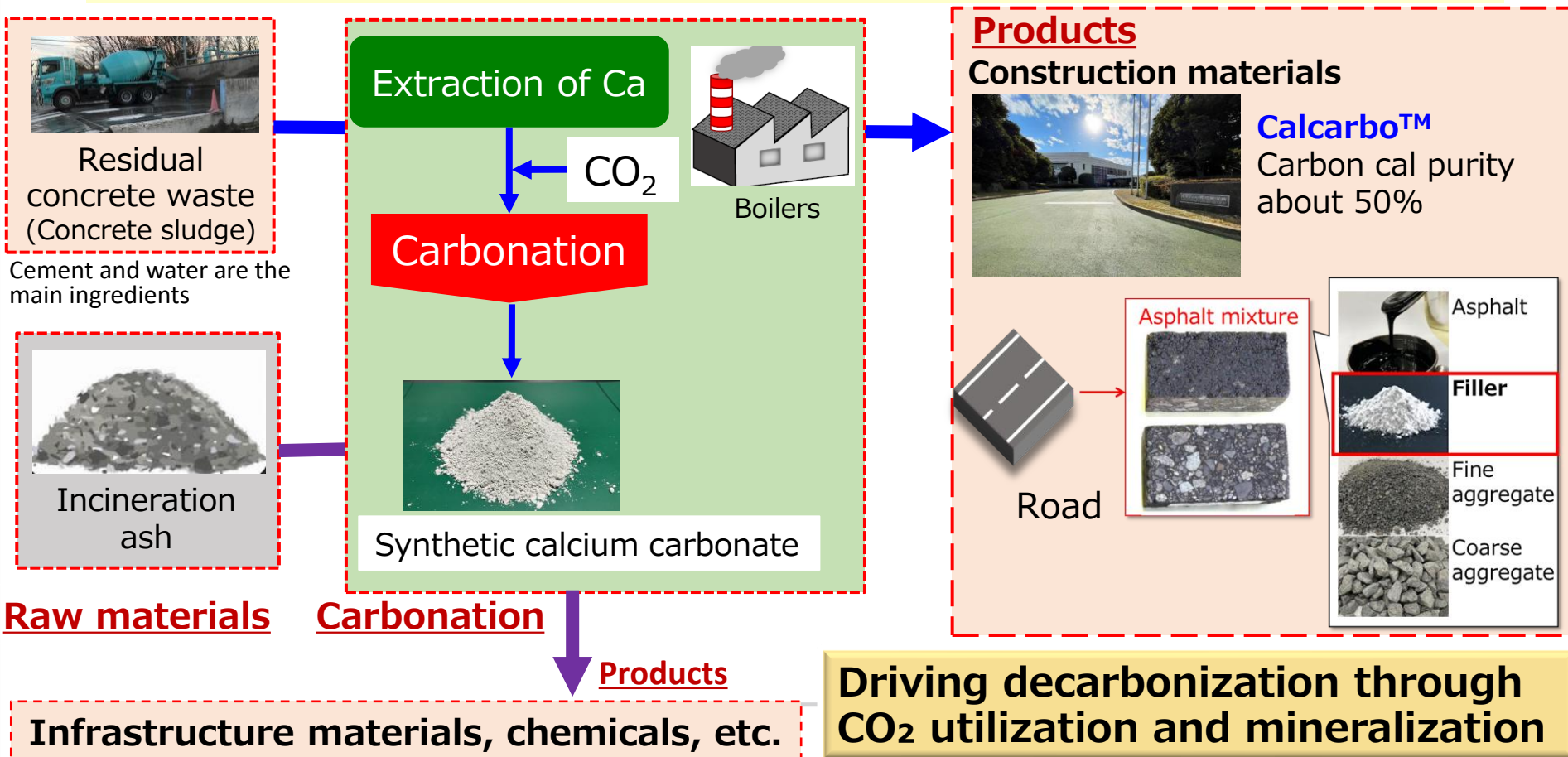
Increasing co-firing ratios of CN fuels and mid- to low-grade coals with stable operation



Supporting the transition of coal-fired boilers to CN fuels.

Calcium Carbonate

- Extracting calcium from concrete waste and reacting it with CO₂ to produce calcium carbonate for civil engineering and chemical uses.
- Producing and selling construction materials such as asphalt fillers (**Calcarbo**) and synthetic calcium carbonate (e.g., PP additives) with strong synergy to Idemitsu's businesses.



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Idemitsu Australia (IA)

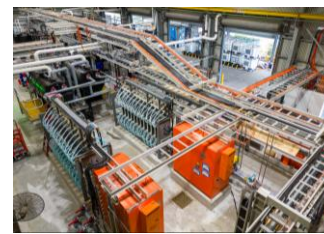
- Idemitsu Australia, a wholly owned subsidiary of Idemitsu, has more than 45 years of operating experience in Australia and has contributed to the stable supply of coal to Japan and other Asian markets.
- To support the transition to a carbon-neutral society, Idemitsu Australia is leveraging the business foundation and expertise developed through its coal operations in Australia to focus on the development of new businesses, including critical minerals and renewable energy.



Critical mineral



Solar



Storage battery



Biomass

Australia Business (Existing and New Business)

Existing business

New business

WA

Gorgon/Pluto LNG PJ
(MidOcean Energy)

Lithium PJ
(Delta Lithium)

QLD

Freedom Fuels

Graphite PJ
(Graphinex)

Pongamia trial plantation PJ
(Stanmore·Terviva)

Trinity Petroleum

Vanadium PJ
(Vecco·CMG)

SAF PJ
(Jet Zero) Townsville

QCLNG PJ
(MidOcean Energy)

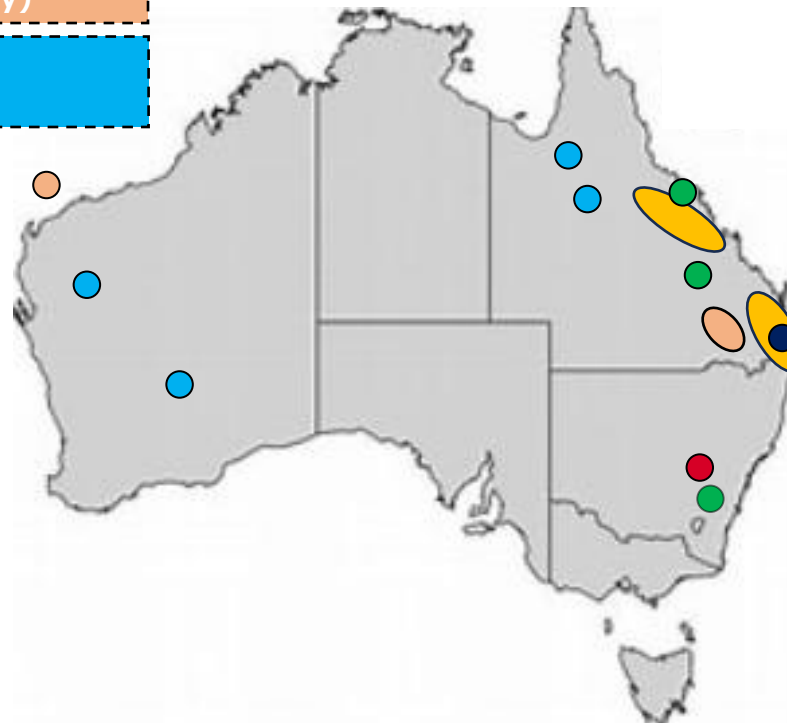
Acquisition of
a Metallurgical Coal Mine

Idemitsu Australia
Brisbane Head Office

NSW

Boggabri Coal mine
(Operating)

Renewable Energy Hub
(Former Muswellbrook mine site)



Vecco

Northern Queensland

Electrolyte Plant @Townsville

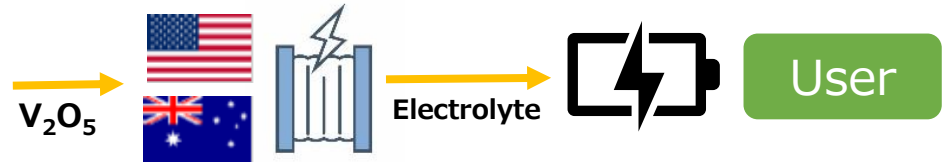


Vecco PJ: Majority stake acquired in January 2025

- In addition to vanadium (resource: 930 million tonnes, average grade: 0.33%), molybdenum (170 ppm), alumina (3.6%), and TREO (rare earth elements; 2,260 ppm / 56 million tonnes) are deposited.

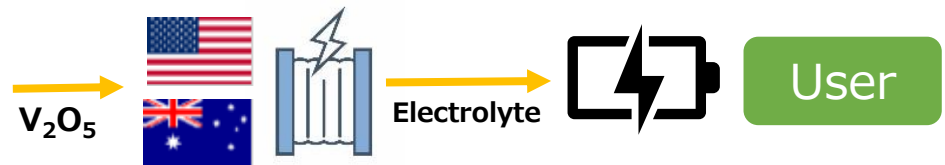
Stage 1 US and Australia

- Procurement of V_2O_5
- Expansion of electrolyte plant based on demand



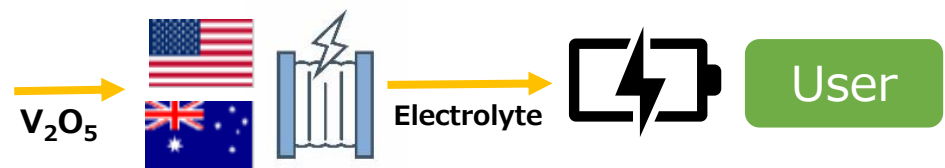
Stage 2 Small-scale production

- Production of vanadium ore
- Production of V_2O_5 by refining



Stage 3 Full-scale production

- Production of vanadium ore
- Production of V_2O_5 by refining



Solar Power / Vanadium

Solar Power Generation and Australia's Largest Vanadium Flow Battery introduced at Boggabri Coal Mine

Leading the Promotion of Renewable Energy Use in the Mining Industry

Idemitsu Kosan Co.,Ltd. (Head Office: Chiyoda-ku, Tokyo; Representative Director, President: Noriaki Sakai; hereinafter referred to as "Idemitsu") commenced operation of a solar power generation facility in September 2025 at the Boggabri Coal Mine (New South Wales), in which it holds a 90% interest through its Australian subsidiary, Idemitsu Australia Pty Ltd. (Head Office: Brisbane). In addition, Idemitsu will introduce a Vanadium Flow Battery (VFB), which offers superior durability and safety as energy storage equipment and is environmentally friendly (scheduled to begin operation in the second half of 2026). Through the introduction of solar power generation and the VFB, we aim to verify the effectiveness and become a model case for energy transition in the mining industry.



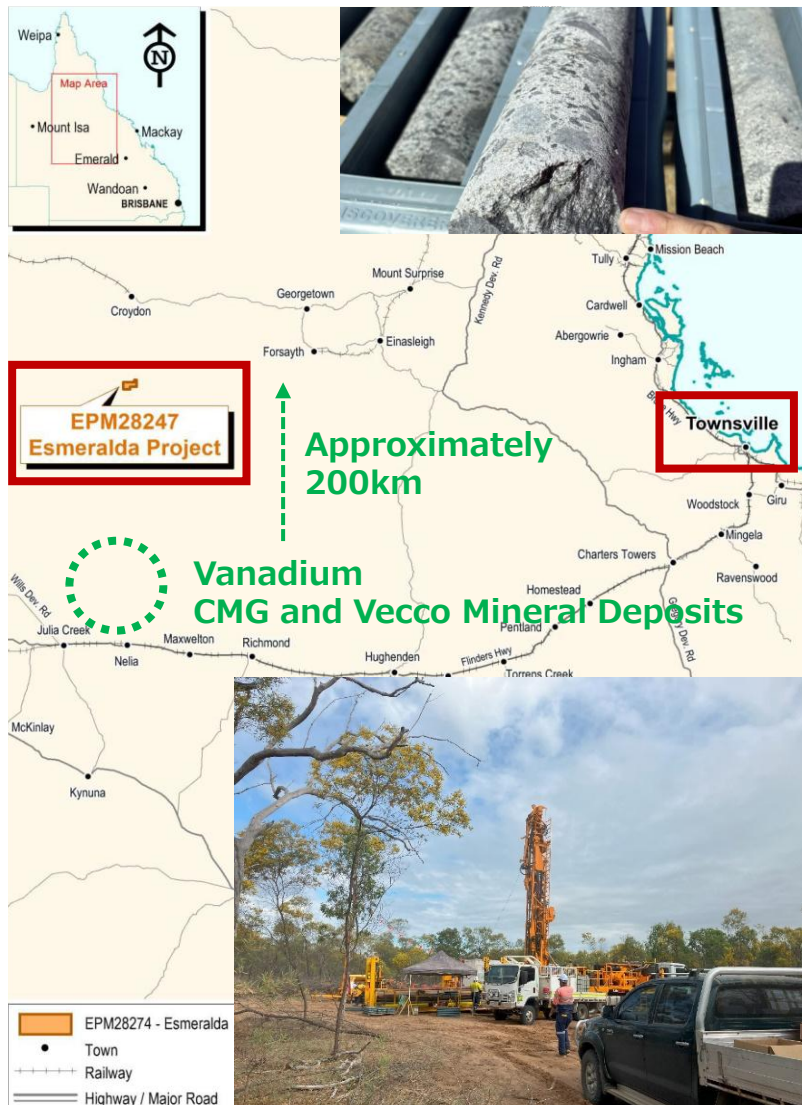
Solar power generation facility that has commenced operation



VFB to be introduced

8th Oct. 2025
News Release

Graphinex



Esmeralda PJ

- Graphite: Resource 558 million tonnes, average: 5.0% $\Rightarrow$ Contained graphite 27.7 million tonnes ranks third globally
- Received subsidies from the federal and state government to construct a 300-tonne-per-year anode material demo plant in Townsville (completed in July 2025) $\Rightarrow$ Customer evaluations will be conducted going forward.
- Listed as a 'Co-ordinated Project' by the Queensland State Government
- Listed as a 'Non-Controlled Action' by the Federal Government
- Executed Native Title agreements
- Letter of Intent (LOI) for development financing issued by the US Export-Import Bank (EXIM)



Inspiring the future with energy and materials.

In this era of increasing uncertainty, each employee of Idemitsu Kosan will work tirelessly to ensure stable supplies of energy and materials. And as ***Your Reliable Partner for a Brighter Future***, we will harness the expertise we have cultivated and continue expanding our business domain to take on the challenges of tomorrow.

