

Project name	Spent Catalyst Recycle Project
Company	Taiyo Koko Co., Ltd.
Country	Malaysia
Category	Category 1 · Category 2 · <u>Category 3</u>

<div> <div>Project Outline</div> <div>【Project Scheme】</div> <div> </div> </div>	<div> <div> <div>【Outline】The project will demonstrate the technology for extracting, separating, and refining vanadium and molybdenum from spent desulfurization catalysts generated at refineries in Malaysia. Through this project, all vanadium pentoxide and molybdic acid produced will be exported to Japan, thereby reducing the dependency on specific countries and contributing to the strengthening of the supply chain.</div> <div> <div>【Expenses】Approx. 12billion Yen (Subsidized Expenses:1.78billion Yen)</div> <div>【Schedule】Dec.2024 Start of construction Jan.2027 Completion of construction</div> </div> </div> <div> <div>【Figure, Picture】</div> <div> </div> </div> </div>
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Changes in the dependency on specific countries

Vanadium is dependent on specific countries (47% from China and 23% from the Czech Republic (which uses Russian ore as raw material ore)) for 70% of its import volume.

The recovery of 400tV/year from this project is equivalent to approx. 30% of the imports of 1,400tV/year from China, and is expected to reduce the imports from specific countries by approx. 20% and the dependency by approx. 15%, respectively.

Resulting benefits to Japan

Vanadium is an important material for the steel and chemical industries, as it is used as a base alloy for titanium alloys for aircraft parts, and as a raw material for electrolytes in redox flow batteries.

This project will contribute to the strengthening of the supply chain by diversifying the supply chain, which is dependent on specific countries.