



Critical Minerals List issues paper

Background

On 20 June 2023, the Australian Government released a new national Critical Minerals Strategy. The strategy sets out a plan to achieve Australia's vision for 2030 to grow the geostrategic and economic footprint of our critical minerals sector by becoming a globally significant producer of raw and processed critical minerals. The strategy has affirmed Australia's definition of critical minerals as 'metallic or non-metallic materials that are essential to our modern technologies, economies and national security, and whose supply chains are vulnerable to disruption'.

Critical minerals will underpin diverse, resilient and sustainable global supply chains that support:

- industries and technologies crucial for the global transition to net zero emissions
- domestic and regional energy security
- our defence and economic security.

The strategy also outlines the government's decision to decouple the strategy and the list. This will allow the list to be updated as required in response to global, strategic, technological, economic and policy changes. Meanwhile, the strategy sets out the Australian Government's broad and enduring policy direction to grow the critical mineral sector in the national interest.

The list was last updated on 16 March 2022 and since then, global markets and other countries' policies have evolved significantly. A timely update of Australia's Critical Minerals List will ensure that Australia's policies reflect the current global context and provide the flexibility to evolve over time.

The purpose of the Critical Minerals List

Australia's Critical Minerals List signals the importance of the listed minerals to our economy and our national security. The current criteria for inclusion on the list includes minerals:

- essential to modern technologies, economies and national security
- whose supply chains are vulnerable to disruption
- our strategic partners need
- for which Australia has potential economic geological resources.

The list conveys to international partners our commitment and ability to support strategically important supply chains including through developing export markets. Where relevant it may also serve as an eligibility filter for access to government funding or support as well as bespoke project facilitation services through the Critical Minerals Office.

Scope of the update

The government will update Australia's Critical Minerals List based on a rigorous methodology involving:

- technical and market analysis
- work with Australian Government science agencies
- consultation with industry, other experts and strategic international partners.

In this work, the government will draw on stakeholder views received in response to this issues paper. You can make a submission through the [consultation hub](#). The government will also consider views communicated during the strategy consultation period of December 2022 to February 2023.

This consultation process and other analytical work to inform the update of the list may cover:

- Australia's domestic mineral vulnerabilities, including current and potential vulnerabilities associated with new industries (for example, clean energy or defence)
- Australia's mineral needs, the extent to which minerals are critical for Australia's economy and sovereign capability, and the extent to which Australia's access to minerals may be vulnerable to disruption
- international supply chain vulnerabilities that Australia can help address as a mineral exporter
- existing criteria and those of our priority partners to inform whether changes to the criteria are required.

As part of the analysis, we will consider the application and strategic importance of minerals. The government will prioritise support for critical minerals projects that underpin priority technologies and clearly contribute to the vision and objectives of the Critical Minerals Strategy.

Priority technologies for critical minerals have been identified in the strategy. These include, but are not limited to:

- batteries, battery components and pre-cursor materials
- rare earth permanent magnets
- catalysts for hydrogen production
- semiconductors for micro-chips and solar PV
- defence technologies (and manufacturing)
- high-performance alloys and metals (for example, of magnesium, silicon, tungsten and titanium).

Stakeholder input

This issues paper seeks input from stakeholders to build a body of evidence and better understand stakeholders' perspectives on Australia's Critical Minerals List. We are specifically seeking responses to the following questions to help inform the updated Critical Minerals List.

Questions

We ask that you provide evidence where possible to support your responses.

1. Is the current set of criteria still fit for purpose? The Critical Minerals List currently includes minerals:

- essential to modern technologies, economies and national security
- whose supply chains are vulnerable to disruption
- that our strategic partners need; and
- for which Australia has potential economic geological resources.

2. For minerals that are currently on the list, or minerals that should be considered for **addition** to or **removal** from the list:

- a. Which technologies does the mineral feed?
- b. What evidence is there of supply chain disruption relating to those minerals?
- c. What market, financing, technical or other barriers affect these supply chains?
- d. Are the barriers or supply chain disruption risks more acute in certain applications or levels of mineral grade or purity than others?

3. Should Australia differentiate between criticality or importance of minerals, and the capability to process them, through categories within the list or a separate category that sits alongside the list? This differentiation could reflect the size and maturity of markets and the different challenges or barriers faced.

Other countries have recognised value in establishing different categories or separate lists where minerals are prioritised (refer to Attachment A). This differs from Australia's current approach and suggests that other lists are intended to serve multiple purposes (for example, to meet specific policy or research needs).

4. What lessons could be learned from other countries' approaches or the ways in which they consider their criteria for listing critical minerals?

5. What should trigger an update to the list? For example, global strategic, technological, economic or policy changes.

Attachment A

How other countries differentiate between minerals on their critical minerals lists

Some other countries are now adopting multiple or ‘tiered’ approaches to their critical minerals lists. Some examples are below.

United States

In the United States, critical minerals are defined in its Energy Act of 2000 as a subset of a broader category titled ‘critical materials’. The US [list of critical minerals](#), most recently published in 2022, includes 50 minerals essential to the economic or national security of the US and which have a supply chain vulnerable to disruption. Critical minerals are also characterised as serving an essential function in the manufacturing of a product, the absence of which would have significant consequences for the economy or national security.

The US has also recently published a draft set of 17 ‘[critical materials for energy](#)’, which would also be a subset of critical materials. These have a high risk of supply chain disruption and serve an essential function in one or more energy technologies, including those that produce, transmit, store and conserve energy.

The different categories of critical material will be applied by US government agencies to reflect specific policy or research needs (for example, to guide geological research on mineral potential within the US).

Republic of Korea

The Republic of Korea has 2 tiers to its [critical minerals list](#). The overall list includes 33 minerals. It also identifies 10 strategic minerals (lithium, nickel, cobalt, manganese, graphite and 5 types of rare earths) as necessary for stabilising the supply chain of high-tech industries like semiconductors and secondary batteries. These strategic minerals are then prioritised for intensive management.

Canada

Canada has 2 sub-categories within its [critical minerals list](#). The first category is a group of 6 minerals that hold the most potential for Canadian economic growth and will be the focus of most federal investment.

The second category captures 25 other minerals that present significant prospects for the future (either through increasing exports to allies or by expanding domestic refining, processing, and components manufacturing).

United Kingdom

The [United Kingdom’s list](#) has 3 tiers: critical minerals, a ‘watchlist’, and other important minerals. Its critical minerals list comprises 18 minerals, while a further 5 minerals (iridium, manganese, nickel, phosphates and ruthenium) are included on the watchlist.

Minerals on the watchlist are actively monitored by the United Kingdom Critical Minerals Intelligence Centre, which advises whether those minerals are deemed to be increasing in criticality.

For example, the United Kingdom has highlighted nickel as a commodity that is traded in large global markets and with a diverse range of applications, giving supply chains a degree of resilience. It has included nickel on its watchlist because Class 1 (high purity) nickel is an important metal for EV

batteries (and so demand is expected to rapidly increase), noting that supply chains have been disrupted by the Russian invasion of Ukraine.

European Union

The European Commission has identified a [list of 34 critical raw materials](#) (CRMs) for the European Union. The CRMs combine raw materials of high importance to the EU economy and where there are high supply-risks.

The CRM list also includes strategic raw materials that do not meet the CRM thresholds, but have strategic importance, such as:

- aluminium/bauxite
- arsenic
- coking coal
- feldspar
- helium
- lithium
- manganese
- copper
- phosphorus
- nickel.