# Crawford Nickel Project Impact Statement

## Chapter 4 Project Purpose and Need

**Prepared for:**
**Canada Nickel Company**

September 30, 2024

**Prepared by:**
**Stantec Consulting Ltd.**

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# Acronyms and Abbreviations

| | |
|---|---|
| CAGR | compound annual growth rate |
| $CO_2$ | carbon dioxide |
| DOC | United States Department of Commerce |
| DOD | United States Department of Defense |
| DOE | United States Department of Energy |
| EV | electrical vehicle |
| GDP | gross domestic product |
| IAA | *Impact Assessment Act* |
| IPT | In-Process Tailings |
| NRCan | Natural Resources Canada |

# 4 Project Purpose and Need

## 4.1 Purpose of the Project

The primary purpose of the Crawford Nickel Project ('the Project') is to responsibly and sustainably extract and process critical minerals, including nickel, iron, chromium, cobalt, palladium, and platinum, while simultaneously contributing to the global supply of critical metals used in the production of various essential industrial and consumer goods. In the global race for critical minerals, the Project has the potential to help secure Canada's future as a hub for sustainably sourced critical minerals to meet the limited Western supply and increasing worldwide demand.

Canada Nickel Company Inc. (Canada Nickel) is proposing a CAD $31.5B Project; inclusive of CAD $6.8B in capital costs (initial, expansion, sustaining, and closure), as well as CAD $24.6B in total operating expenditures over the 41-year life of mine. The Project will employ up to 2,000 workers during construction, up to 1,300 employees during operations, and generate a substantial amount of peripheral business and employment opportunities once the local and regional economy is stimulated through both the temporary and permanent workforce created by Canada Nickel, supported by preferred local procurement policies. In addition to the long-term benefits to both the local and regional economies, Indigenous economies will be stimulated through Impact Benefit Agreements or Mutual Service Agreements, presently under negotiations, preferred Indigenous procurement policies and practices, as well as business ventures providing opportunities for multi-generational own-source revenues.

A Feasibility Study was undertaken for the Project by Ausenco Engineering Canada ULC (Ausenco 2023) on behalf of Canada Nickel to establish the viability of the Project mineral resource and the proposed approach for extraction based on various factors including geologic, regulatory, environmental, economic, Indigenous, and community considerations (Ausenco 2023). The Feasibility Study confirmed the technical feasibility and economic viability based on the above noted factors to develop the Project for the purpose of extraction, processing, and sale. No issues have been identified to date that are expected to materially affect the ability of Canada Nickel to extract minerals from the Project. The Project is expected to be the third largest nickel sulphide operation globally[1] following Norislk, Russia and Jinchuan, China, and the largest Western World nickel sulphide operation, representing one of few opportunities for large scale nickel supply in North America. Once approved, the Project will also be the only North American producer of chromium, a critical mineral in multiple jurisdictions globally.

The nickel and magnetite concentrates that would be produced by the Project are expected to be processed locally and sold into both the North American battery production chain participating in building an integrated electric vehicle supply chain in Ontario, Canada, and North America, and into the stainless steel and alloy markets as a major contributor to many strategic end uses.

[1] Based on 2022 annual production.

The tailings and waste rock produced by the Project spontaneously and permanently captures and sequesters $CO_2$ when exposed to atmospheric conditions. Canada Nickel has developed the patent-pending In-Process Tailings (IPT) Carbonation process to fully utilize the carbon sequestration potential of the Project to offset Project emissions. Globally, Canada Nickel is developing the Project an operation with carbon sequestration potential in excess of greenhouse gas emissions utilizing IPT Carbonation to allow the Project to become Ontario's first and largest, and one of Canada's largest, carbon storage facilities with 1.5 million tonnes per annum carbon permanently stored during peak period.

The objective of sustainable growth - economic, societal, environmental, and technological – will be achieved while demonstrating the Project's sustainable growth is not only inclusive of, but led by, rights recognition, Indigenous own-source revenue, benefits sharing, and Indigenous k-based environmental stewardship. These are core components of Canada Nickel's operating strategy, ethos, and purpose, currently being delivered through ambition and innovation, with the Project ideally positioned to meet rising global demand for local, accountable, dependable, and sustainable nickel, iron, chromium, cobalt, palladium and platinum.

As further discussed in Chapter 20 of the Impact Statement (Assessment of Potential Effects on Climate Change), Canada Nickel intends on becoming a leading producer of potentially net zero nickel and many other critical minerals needed to meet Canada and Ontario's ambitious critical minerals strategies.

## 4.2 Need for the Project

### 4.2.1 Forecasted Demand for Critical Minerals

Nickel is a critical metal with diverse applications in various industries, including automotive, battery, aerospace, and renewable energy sectors. As demand for nickel and other critical minerals continues to grow, it is essential to locate a reliable and sustainable source of this resource.

Maintaining a diverse and secure supply of critical minerals is crucial for the stability of the global economy. The Project represents a domestic source of nickel and other critical minerals intended to meet the increasing global demand from the stainless steel and lithium-ion battery markets in the move toward decarbonization of the global transportation economy. By developing domestic sources of nickel, the Project could reduce Canada's dependency on foreign suppliers, enhance supply chain resilience, and contribute to national and regional economic stability, as well as increased national security.

The World Bank Group, in its report titled, *Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition* (World Bank Group 2020), states that the production of minerals, such as nickel, iron and cobalt, could increase by as much as 500% by 2050 to meet the growing demand for clean energy technologies (World Bank Group 2020). The report estimates that over 3 billion tons (i.e., 2.7 billion tonnes) of minerals and metals will be needed to deploy the wind, solar and geothermal power, as well as energy storage supplies, required to achieve a below 2° Celsius future.

According to the long-term outlook provided by Fastmarkets in September 2023, primary nickel demand will rise at a compound annual growth rate (CAGR) of 4.9% between 2022 and 2033, driven by growth in the stainless steel and battery sectors. Demand for primary nickel in batteries will grow at a CAGR of 14.2% between 2022 and 2033, consolidating its position as a strong second largest consumer of primary nickel after the stainless-steel industry. Demand from the stainless-steel sector will grow at a CAGR of 3.2% over the forecast period. Given the sector's size, this represents an additional 838 kilotonne (kt) of nickel required by 2033 (Fastmarkets 2023). Other sectors are forecast to grow at a CAGR of 3%, representing a further increase of 237 kt of nickel by 2033 (Figure 4.1). According to Fastmarkets (2023), supply will keep pace with demand in the short to medium-term, leading to an oversupplied market. In the long-term, a lack of new projects will result in deficits beginning in 2030 and widening to in excess of 300 kt annually by 2033.

The magnetite concentrate produced by Canada Nickel will have average grades of 55% iron, 2.6% chromium, and 0.26% nickel (Ausenco 2023). The chromium contained in this concentrate would make Canada Nickel the sole miner of chromium in North America (a listed critical mineral in both Canada and the United States). The average Phase 2 production rate of 75 kt/annum equates to 15% of total North American primary consumption and would thus make the Project a material source of chromium for North America (Ausenco 2023). As iron, nickel, and chromium comprise the key elements in 300 series stainless steel and a range of alloy steels, all three elements in this concentrate are valuable to be utilized as feed for these products and could be utilized by a wide range of production facilities across North America (Ausenco 2023).

### 4.2.2 Social and Environmental Protections

Currently, a substantial part of the world's nickel supply for stainless steel and batteries is sourced from China or China-owned operations in Indonesia. An extensive review of Chinese, Indonesian, South Korean, and US corporate filings by *Bloomberg Businessweek*, as well as interviews with industry experts, demonstrated that nickel from the Indonesia Morowali Industrial Park is present in the supply chain that feeds virtually every major seller of electric vehicles (EVs), with numerous suppliers operating in opaque, unsustainable, and carbon-intensive ways (Bloomberg 2024).

Negative effects of such operations in Indonesia, including on the environment, women, and Indigenous Peoples, have been well documented in the media (e.g., BBC 2023, CNN 2023, Washington Post 2023). More specifically, workers have been buried under slag, crushed by heavy equipment, and killed in falls (Bloomberg 2024). The carbon footprint of nickel production in other countries such as Indonesia, Russa, South Africa larger than Canadian operations (Transport and Environment 2023, Canadian Mining Journal 2021).

The two processes that Chinese companies use to produce nickel in Indonesia result in substantive environmental impacts (Bloomberg 2024):

- One uses large amounts of coal and coal-fired electricity, resulting in nickel products with a carbon footprint of 50 to 80 tonnes of $CO_2$ per tonne of nickel. This compares with less than five to ten tonnes of $CO_2$ for Canadian ultramafic nickel deposits, and the Project's deposit, which has the potential to sequester more $CO_2$ than its emissions.

- The other uses high-pressure acid leaching, which results in large volumes of chemically reactive tailings that are known to pose considerable management challenges in a seismic region and monsoon rainfall climate.

In surrounding Indonesian communities, residents complain of respiratory ailments that they blame on pollution from smelters and the coal-fired power plants that sustain them (Bloomberg 2024). Environmentalists accuse the nickel industry of flouting regulations intended to protect ecologically sensitive islands, such as Sulawesi, while expanding production of a material critical to the EVs that Western governments promote on environmental grounds (Bloomberg 2024).

The World Bank Group's report (World Bank Group 2020) clearly highlights the need to expand current and future mined production of nickel, iron, and cobalt, while making sure that it does not come at the cost of the climate, environment, or society, particularly those communities directly affected by mining activities. Canada is known worldwide as one of the safest jurisdictions in the mining industry (Mining Association of Canada [MAC] 2024, Ontario Minning Association n.d.). It is considered safe in terms of protecting the environment, worker safety, property security, employee rights, fair wages, and Indigenous rights/relations.

### 4.2.3 Strategic Need for Critical Minerals

Both the Canadian federal and Ontario provincial governments have highlighted the growing demand and importance of critical minerals through various policies, strategies, and budgetary commitments over the past 3 years. Similar commitments in the United States have been made recently that further acknowledge the importance of a North American Supply Chanin for critical minerals.

#### 4.2.3.1 Canada's Critical Mineral Strategy

On March 11, 2021, Natural Resources Canada (NRCan) announced Canada's critical minerals list, which includes all the metals expected to be recovered at the Project. Nickel, cobalt, and platinum group metals are also designated as strategic critical minerals in the USA, the European Union, and Japan. These metals are considered critical for the sustainable economic success of Canada and its allies and are needed to support important sectors such as communications manufacturing, aerospace, national security, and low-carbon technologies. Canada's then acting Minister of NRCan noted that global demand for critical minerals is increasing to support the transition to a low emissions' global economy. The announcement also noted the important role Canada can play to leverage its mineral resources, mining expertise, and world leading environmental, social, and governance credentials to become the global supplier of choice for these critical minerals (NRCan 2021).

Canada's critical minerals list was developed through collaboration between NRCan, other federal departments, exploration, mining and manufacturing companies, and extensive consultation with the provinces and territories. Canada's mining industry contributes $107B, or 5%, to Canada's total nominal gross domestic product (GDP) in 2020 (MAC 2021). The mining industry directly employs 377,000 nation-wide and further provides indirect employment opportunities for an additional 315,000 employees (MAC 2021). Proportionally, Canada's mining industry is the largest private sector employer of Indigenous peoples, providing over 16,500 jobs to community members in 2020 (MAC 2021). Backed by a rich

endowment of mineral resources, Canada is ranked among the top five countries in the global production of 14 minerals and metals (MAC 2021), many of which are integral to the low carbon technology needed for a greener future. Supported by free markets, political stability, and preferred access to global markets, NRCan expects that Canada will lead in supplying the world of its highly in-demand critical minerals (NRCan 2021).

The Government of Canada released the Canadian Critical Minerals Strategy (the Strategy) on December 9, 2022 (NRCan 2022). Based on the global demand for critical minerals and Canada's goal of promoting responsible sources of critical minerals, the Strategy identifies five core objectives, including:

- *"Supporting economic growth, competitiveness, and job creation;*
- *Promoting climate action and environmental protection;*
- *Advancing reconciliation with Indigenous peoples;*
- *Fostering diverse and inclusive workforces and communities; and*
- *Enhancing global security and partnerships with allies."*

The Project aligns with the Strategy objectives via the following mechanisms:

- The total direct GDP contributions in Ontario for the life of the mine is projected to be approximately $12.8B. When considering the direct GDP contributions for all of Canada, the GDP contributions are projected to exceed $14B. (Refer to Appendix C.11 of the Impact Statement for further details.)
- The Project will have a peak workforce of 1,998 full-time equivalents and an average of 708 full-time equivalents over the life of the mine. (Refer to Appendix C.11 of the Impact Statement for further details.)
- Canada Nickel supports climate action through a novel and patent-pending $CO_2$ sequestration process that they have developed called IPT Carbonation to enhance the carbon sequestration potential in the tailings, allowing the Project to become Ontario's first and largest permanent carbon storage facilities, and one of Canada's largest.
- The Project is being assessed through the federal *Impact Assessment Act,* 2019 (IAA) and under Ontario's *Environmental Assessment Act*. The Project will also require a number of federal and provincial approvals and permits. (Refer to Chapter 1 of the Impact Statement for further details). Through the environmental assessment and permitting processes, the potential for negative effects will be well understood and mitigated to the extent feasible.
- As part of the impact assessment process under the IAA the proponent, Canada Nickel, must engage with Indigenous nations, which began in good faith and prior to commencing the Impact Assessment process as an ethos of the Company, in order to identify and understand the potential impacts of the Project on Indigenous Peoples and their rights, including the use of their lands, territories and resources, and to incorporate Indigenous knowledge into the impact assessment (IA), which will be considered on equitable footing with western scientific information. (Refer to

Chapter 7 of the Impact Statement for the Description of Engagement with Indigenous Peoples , and Chapters 25-28 of the Impact Statement for the Assessment of Potential Effects on Indigenous Interests).

- Canada Nickel has and will continue to participate in events centred around raising awareness in underrepresented groups of opportunities in mining and encouraging engagement in local training programs already tailored to managing diverse, unique needs and access requirements. Canada Nickel is committed to hire from local communities and the region, pending the availability of qualified applicants. For Indigenous peoples, accommodations are provided to allow employees to engage in traditional and cultural activities. In addition, with emerging technology trends, employees require a specific set of skills, and Canada Nickel is working with NORCAT to develop courses that will be administered by Northern College, which will include apprenticeship programs as well as specialized training for vehicle operation. This program will be run multiple times to provide an opportunity to equip locals with the skills needed to work on the Project. Further, Canada Nickel will develop a Diversity and Inclusion Policy, which does not discriminate against employees or contractors of the company based on race, ethnicity, sexual orientation, or Indigeneity, and requires employees to adhere to respectful workplace practices. Additionally, Canada Nickel is participating in the initiative “Equal by 30”, which aims to increase benefits to women and to accelerate gender equality and diversity to close the gender gap by 2030
- As per Section 4.1, the purpose of the Project is to responsibly and sustainably extract and process critical minerals, while simultaneously contributing to the global supply of critical metals used in the production of various essential industrial and consumer goods. As per Canada Nickel’s Social Purpose: “We originate materials to responsibly power the energy transition”.

Further, the Strategy specifically identifies six critical minerals based on their potential to promote domestic economic growth and for their importance in supply chains. These six minerals are lithium, graphite, nickel, cobalt, copper and rare earth elements; two of these prioritized minerals (i.e., nickel and cobalt) will be extracted and processed as part of the Project.

Canada’s 2022 Federal Budget emphasized that those proponents able to help address supply chain weaknesses, critical mineral extraction and processing, or driving climate change-oriented innovation, could receive support from government representatives. As a Canadian owned and operated business with a strategically positioned critical mineral Project and the patent pending ability to sequester more $CO_2$ than the total emissions, Canada Nickel has the opportunity to meet not one, but all three of these objectives. This potential support is evidenced by an 8-year commitment to CAD $3.8B to implement the Critical Minerals Strategy, with a portion of the funds oriented towards supply chain infrastructure investments for priority deposits, of which the Project, positioned to be the largest base metal mine in Canada and one of the largest suppliers of nickel in the world, could be. Another key takeaway from the Federal Budget was the focus on the recently announced 2030 Emissions Reductions Plan, which included a tax credit for Carbon Capture, Utilization and Storage, a primary focus of Canada Nickel’s ongoing research into the carbon sequestration potential of the Project.

The 2023 Federal Budget showed continued support for critical mineral project development with the announcement of a $1.5B Critical Minerals Infrastructure Fund allocated for energy and transportation projects associated with critical mineral projects. The 2023 Federal Budget also included tax credits for critical mineral extraction and processing. Federal support was further reiterated through the 2023 Fall Economic Statement, where Canada's electric vehicle supply chain—from critical minerals extraction and processing to battery and components manufacturing and vehicle parts and assembly—was noted as a key pillar of Canada's clean economy.

Canada Nickel was named as a major project component within Canada's EV supply chain (Department of Finance Canada – Fall Economic Statement 2023), was given a Letter of Interest from Export Development Canada stating its interest in providing long-term debt financing of up to USD $500M of Project debt, as Mandated Lead Arranger, for development of the Project.

#### 4.2.3.2 Ontario's Critical Mineral Strategy

Provincially, the Government of Ontario presented its first Critical Minerals Strategy on March 17, 2022, to help generate investment, increase the Province's competitiveness in the global market, and create jobs and opportunities in the mining sector. The Critical Minerals Strategy highlights the importance of having domestic sources of critical minerals to meet energy transition goals. The global supply and processing of critical minerals is currently largely sourced from countries outside of North America, where political stability can be an issue. Figure 4.2 provides the global nickel production in 2023 and Figure 4.3 provides the global cobalt production in 2021.

Similar to the Federal budget, Ontario's 2023 Fall Economic Statement promoted continued exploration and production of critical minerals in Ontario through tax credits. To connect production of critical minerals to manufacturing, the Ontario government also intends to attract manufacturers in the automotive and clean steel sectors (Ontario Government 2023). In 2024, Ontario's Budget announced additional funding through the 'Critical Minerals Innovation Fund' of CAD $5M per year in 2024-2025, 2025-2026, and 2026-2027 to continue to help Ontario's mining sector undertake research, development and commercialization of innovative technologies, including techniques, processes, and solutions related to critical minerals. Of this early funding stream, Canada Nickel received CAD $228,735.10 to fund research to commercialize carbon sequestration processing techniques for nickel to produce battery grade nickel and nickel for clean stainless steel.

#### 4.2.3.3 North American Supply Chain

When looking at the North American supply chain as a whole, the United States government has emphasized its bipartisan support in building strong and reliable critical mineral supply chains, as demonstrated by recently enacted laws including: The *John. D. Dingell, Jr. Conservation, Management, and Recreation Act* of 2019; *Energy Act* of 2020; Bipartisan Infrastructure Law (BIL); *CHIPS and Science Act*; and, the *Inflation Reduction Act*, acknowledging that smartphones, clean energy infrastructure, and U.S. military readiness have a common denominator. They depend heavily on a secure supply of critical minerals, which the Secretary of the Interior, acting through the Director of the US Geological Survey, published a 2022 Final List of Critical Minerals (USGS 2022), to which both nickel and cobalt were named. Unfortunately, global demand for these integral inputs threatens to outpace production, and the

United States depends almost exclusively on other countries—particularly China—for their supply. Both Republicans and Democrats recognize that America's national security, economic welfare, and energy security hinge on developing reliable and secure mineral supply chains.

The US Department of Energy (DOE) Critical Minerals and Materials Strategy (USDOE n.d.) is based on the following pillars:

- Diversifying supplies of critical minerals and materials
- Developing alternatives to critical minerals and materials
- Improving materials and manufacturing efficiency.

The DOE further invested USD $75M to strengthen the US critical minerals supply chain (USDOE 2024). The US Department of Commerce (DOC) released A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals (USDOC 2020) which present 6 Calls to Action, 24 goals, and 61 recommendations that describe specific steps that the Federal Government will take to achieve the objectives outlined in Executive Order 13817.

The US Department of Defense (DOD) understands Canada's staple role within the North American supply chain by awarding USD $14.7M to Canadian companies through the Defense Production Act Investment program to help support the US-Canadian Joint Action Plan on Critical Minerals, in accordance with the National Defense Industrial Strategy, to continue to expand support for domestic production of critical minerals, to which Canadian companies are deemed domestic suppliers (USDOD 2024). These policy and funding measures, in concert with recently announced tariffs from both American and Canadian federal governments from critical minerals to EVs throughout the supply chain, demonstrate the willingness of North American governments to support, produce, and enhance domestic production of critical minerals to support the clean energy transition (Department of Finance Canada 2024, Wingrove 2024).

#### 4.2.3.4 Summary

In summary, both the Canadian federal and Ontario provincial governments have highlighted the growing demand and importance of critical minerals through the following:

- Natural Resources Canada's Critical Minerals List (2021)
- Canada's 2021 - 2024 Federal Budgets
- Canada's 2022 - 2023 Fall Economic Statements
- Ontario's & Canada's Critical Minerals Strategies (2022)
- Ontario's 2022 - 2024 Provincial Budgets
- Ontario's 2021 – 2023 Fall Economic Statements

- Canada Nickel Company received mention in both the Federal 2023 Fall Economic Statement and 2024 Ontario Provincial Budget

Located in the Cochrane District mining camp, the Crawford Project can support these Federal, Provincial, and American critical mineral initiatives, to be a reliable, leading producer of the critical minerals needed to secure North America's sustainable manufacturing supply chains. The Project is well positioned with an approximate 12-hour drive from Canada's main automotive industry and cross-border location to the United States of America's automotive and stainless-steel industries.

### 4.2.4 Plausible Destinations for Mine Products

As noted in Section 4.1, both nickel and magnetite concentrates that would be produced by the Project are expected to be processed locally and sold into both the North American battery production chain and stainless steel and alloy market. Other markets may be identified as the Project progresses into development and operations.

### 4.2.5 Growth Plan for Northern Ontario

The Growth Plan for Northern Ontario, 2011, released under the *Places to Grow Act,* is a strategic plan that guides decision-making and investment planning in Northern Ontario over a 25-year period. The plan aims to strengthen the economy of the North, and current initiatives are focused on:

- Diversifying the region's traditional resource-based industries
- Stimulating new investment and entrepreneurship
- Providing more education, training, and career opportunities
- Nurturing new and emerging sectors with high growth potential

The Plan specifically identifies the minerals sector and mining supply and services as an existing and emerging priority economic sector for which Northern Ontario has a distinct competitive advantage. As such, efforts by the Province, industry, and where appropriate, other partners, to grow and diversify the minerals and mining supply and services sectors are recommended to include:

a) marketing that showcases Ontario as a global leader in environmentally sustainable mineral development and stewardship

b) creating new value-added resource sector opportunities through research, development and application of advanced processing and manufacturing technologies

c) expanding the mining supply and services industry, increasing exports, and supporting particular areas of competitive advantage including deep mining techniques and clean technologies

d) improving timeliness and clarity in regulatory processes, supported by a one-window, coordinated process for approvals

e) expanding geoscience mapping and data collection and public access to resource information to expedite the discovery and development of new minerals and other resources

f) investing in research and innovation that improves the efficiency of industry operations, with an emphasis on extraction and exploration technologies, environmental technologies, and mine closure and rehabilitation processes

g) enabling new mining opportunities

h) facilitating partnerships among communities and industry to optimize community employment and benefits

i) facilitating the entry of new participants and entrepreneurs, including Indigenous businesses, cooperatives and commercial developers

The new mining opportunity that this Project provides to the Cochrane District mining camp area, along with the additional mining supply, partnerships, and employment it will generate, while relying on existing infrastructure, workforce, and services, is in line with the Plan.

The Project is expected to generate thousands of direct employment opportunities and support many indirect employment opportunities in northern Ontario. The Project will also contribute to the generation of government revenues through taxes and royalties. As a non-remote mine in Ontario, the Project will be subject to a mining tax of 10% of the annual operator's profit exceeding $500,000 (Ministry of Finance 2022). Over the life of mine, based on the Feasibility Study (Ausenco 2023), the Project could generate over $5B in federal and provincial income taxes, as well as close to $2B in provincial mining tax. This is in addition to tertiary tax revenue from the Project generated from personal income, corporate taxation, and sales tax related to goods and services.

## 4.3 Comments and Views Received Regarding Project Need

Comments and views received from Indigenous nations, the public and other participants on Canada Nickel's description of Project need was obtained through conversations, engagement, and the public consultation process undertaken during the IAA Planning Phase, and through subsequent consultation and engagement during preparation of the Impact Statement (i.e., virtual and in-person public information centres, Technical Working Groups).

A summary of comments and views received through these initiatives include:

- That the Project would support the objectives of the Critical Minerals Strategy
- That Canada Nickel consider the perspectives of participants, including on the social needs of the public, Indigenous nations and others
- That parties support for the Project and potential for the opportunity to share wealth within the local communities
- That parties are interested in mine production timeline and location, and the need for regional assessment

Any consultation efforts where such comments and views were obtained are described further in Chapters 6 (Public Participation and View) and 7 (Description of Engagement with Indigenous Peoples) of the Impact Statement.

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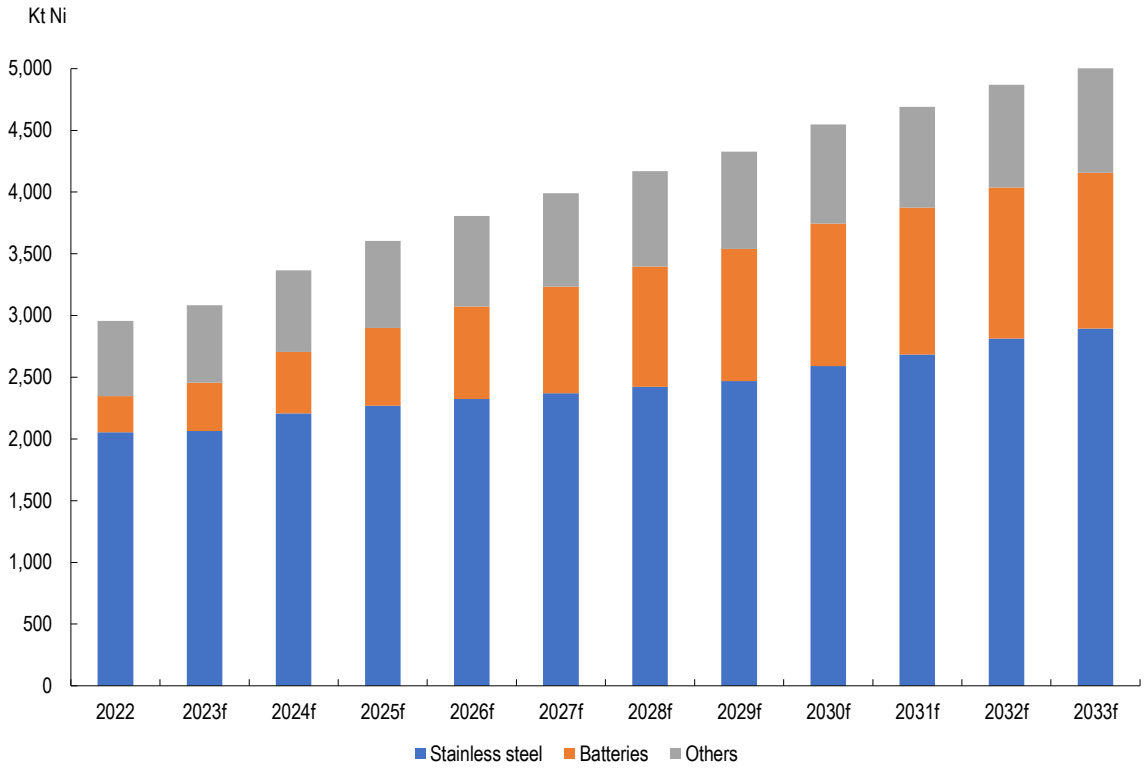
## 4.5 Figures

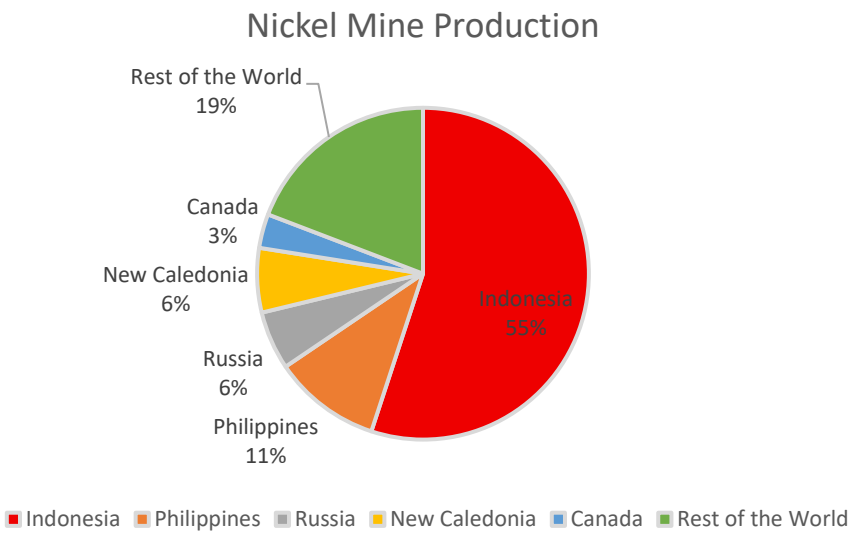
**Figure 4.1 Forecasted Nickel Demand, 2022-2033**

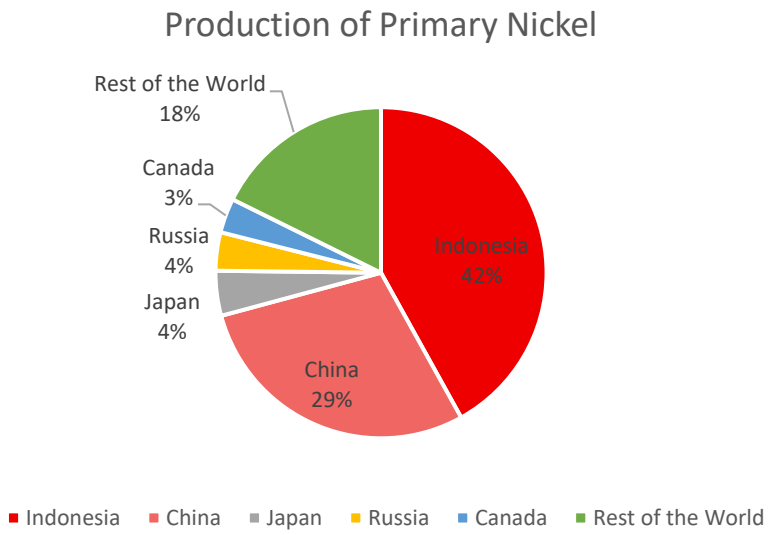



Note: “f” denotes forecast.

Source: Fastmarkets 2023

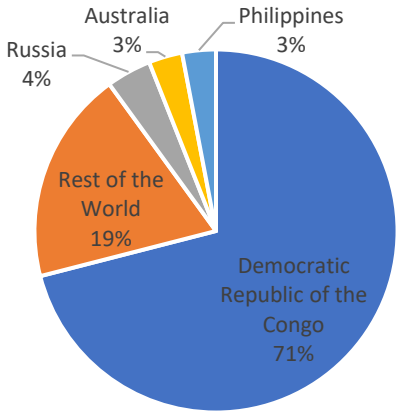
**Figure 4.2 Nickel Production and Production of Primary Nickel in 2023**




Source: International Nickel Study Group 2024

**Figure 4.3 Cobalt Mine Production in 2021**




Source: Ministry of Energy, Northern Development and Mines 2021