

Natural Resources: Major Projects Planned or Under Construction — 2018 to 2028



Energy and Mines Ministers' Conference
Iqaluit, Nunavut
August 2018

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INTRODUCTION: THE MAJOR PROJECTS INVENTORY

Canada has one of the largest, most diverse natural resource endowments in the world, one that positions the country favourably to meet global demand for energy, minerals, metals and forest products. Canadians have been successful in translating their resource advantage into a pillar of the national, provincial and territorial economies. In 2017, the energy, minerals and metals, and forest sectors directly and indirectly accounted for 17% of Canada's nominal gross domestic product and employed over 1.82 million Canadians.

Major natural resource projects are an important source of economic growth and job creation in all regions of Canada. Each year, to help monitor current and planned levels of investment in the energy, mining, and forest sectors, the Government of Canada collaborates with provinces and territories to update the Major Projects Inventory.¹ Updates to the 2018 inventory were made between April and June of 2018 and reflect newly available information on project developments over the 12 months since June 2017.² The *Major Projects Inventory Report* summarizes the updated inventory and examines trends in projects since 2014, the earliest year for which comparable data are available.

To complement the public release of the report, project-level information has been shared through [Open Maps](#), a part of [Canada's Open Government](#) portal that provides one-stop access to the Government of Canada's geospatial information.

SCOPE AND METHODOLOGY

The Major Projects Inventory captures information on major natural resource projects in Canada that are either currently under construction or planned in the next 10 years. The inventory includes projects that increase, extend or improve natural resources production (e.g., new extraction and infrastructure projects, major processing facilities, and large expansion projects). Spending on exploration and general-purpose infrastructure projects (e.g., multi-purpose highways) is excluded.

To be included in the inventory, projects in the energy and mining sectors must meet a minimum capital cost threshold of \$50 million, whereas electricity projects and projects in the forest sector must meet a threshold of \$20 million. Continuing last year's inaugural segment on clean energy and clean technology projects, this year's inventory once again includes information on projects in this important area of the Canadian economy. Clean energy and clean technology projects must meet a minimum capital cost threshold of \$10 million. Projects with capital cost falling below the thresholds, while recognized as important contributions to overall investment, are excluded due to limited data availability.

A variety of data sources are used to update the inventory, including databases maintained by Natural Resources Canada and other federal, provincial and territorial government departments, company releases, and publicly accessible websites. The inventory is based only on information that is in the public domain.

The inventory includes information on the value, timing and geographic location of projects. Projects included in the inventory are also categorized according to their stage of development. A project typically progresses through the following five stages:

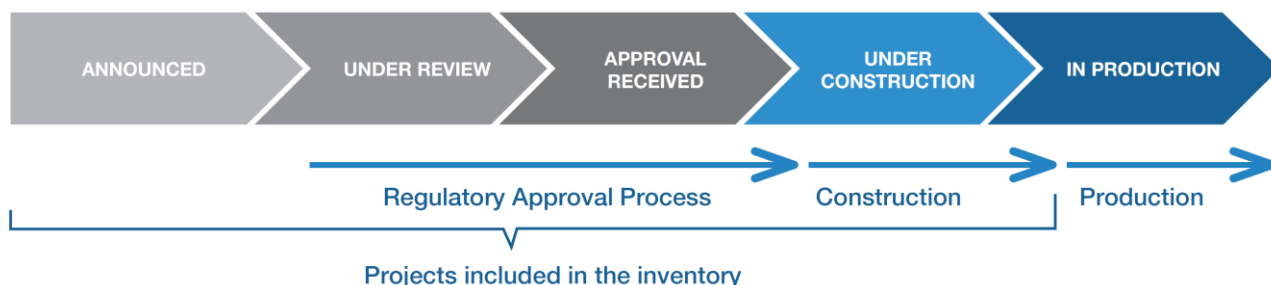
- **Announced:** planned projects that have been publicly announced, but that have not submitted applications for regulatory approvals;

¹ Updates to the status of major energy projects in Ontario were made in late July to reflect the priorities and decisions of the new provincial government.

² An exception was made this year for Equinor's Bay du Nord oil project, which was included in 2018 inventory totals, despite being announced on July 26, 2018.

- **Under Review:** planned projects that have submitted applications for regulatory approvals, but that are still under review;
- **Approval Received:** planned projects that have received all major regulatory approvals (i.e., the approvals required to start construction), but for which construction has not yet begun; and
- **Under Construction:** projects for which construction is underway.

Figure 1. Project Stages Included in the 2018 Major Projects Inventory



In order to highlight some of the key trends, the *Major Projects Inventory Report* also identifies projects that have been added, completed, suspended, cancelled, or removed since the previous annual update:

- **Added projects:** projects that have been announced since the previous update or have come within the scope for inclusion based on newly available data;
- **Completed projects:** projects that have moved past the construction phase and into the production phase, or have otherwise been completed;
- **Suspended projects:** projects (planned or under construction) that have been delayed for a long period or officially suspended by the proponents;
- **Cancelled projects:** projects (planned or under construction) that have been officially cancelled by the proponents; and
- **Removed projects:** projects that are no longer within the inventory’s scope due to newly available information (e.g., because they no longer meet the capital cost threshold).

OVERVIEW OF NATIONAL TRENDS AND ANALYSIS FOR 2018

As of the June 2018 update, there are 418 projects with a combined capital cost of \$585 billion already under construction or planned over the next ten years. Compared to the June 2017 update, the current inventory shows a decrease in the number and value of new projects, an increase in the number and value of project cancellations or suspensions and – more positively – a sharp increase in the number and value of projects that were completed and entered into production. Specifically,

- 99 projects were added, representing a gain of \$48 billion in potential investment;
- 80 projects were completed and began production, representing \$76 billion of actual investment;
- 37 projects were suspended/cancelled, representing a loss of \$77 billion in potential investment; and
- 35 projects representing \$15 billion of investment were removed for data quality reasons.

The net effect of these changes is that between 2017 and 2018 the total number of projects declined by 53 (from 471 to 418), and the value of projects declined by \$99 billion (from \$684 billion to \$585 billion).

Total Projects and Changes from 2015 to 2018

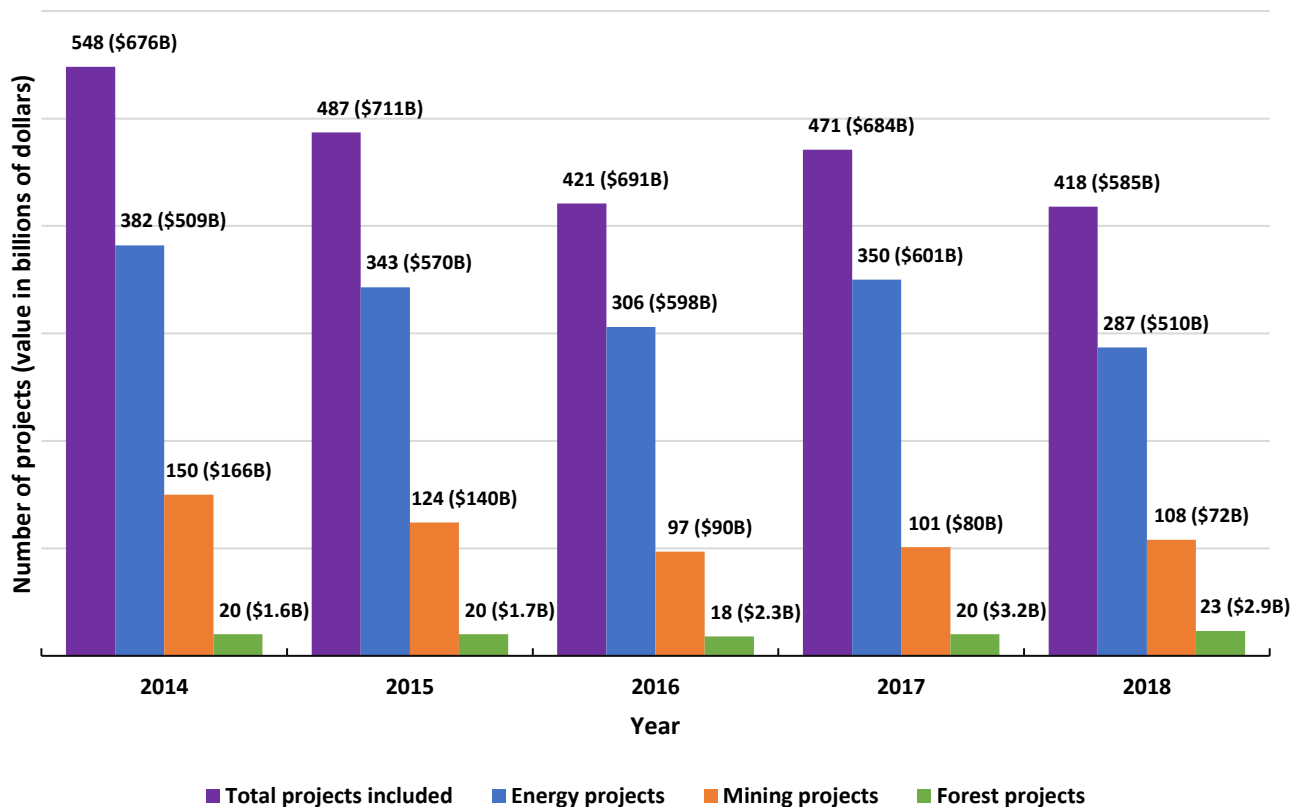
Changes from previous year	2015	2016	2017*	2018
Added	109 projects (\$160B)	85 projects (\$63B)	126 projects (\$58B)	99 projects (\$48B)
Completed	88 projects (\$53B)	56 projects (\$25B)	50 projects (\$33B)	80 projects (\$76B)
Suspended/Cancelled	51 projects (\$48B)	62 projects (\$78B)	13 projects (\$41B)	37 projects (\$77B)
Removed	31 projects (\$28B)	33 projects (\$20B)	13 projects (\$10B)	35 projects (\$15B)
Total Projects Included¹	487 projects (\$711B)	421 projects (\$691B)	471 projects (\$684B)	418 projects (\$585B)

¹Although estimates of capital cost for existing projects are not typically updated to reflect inflation, revisions to cost estimates for other reasons (e.g., cancellation of a project sub-component) may influence changes in total capital cost between years.

*Due to the new \$10 million threshold for clean technology projects, an extra 23 projects valued at \$347 million were added in 2017.

As shown in Figure 2, the decline in the number and value of projects in the inventory was driven primarily by the energy sector. In the minerals and metals sector, the number of projects grew between 2017 and 2018, whereas the value of projects declined somewhat. A similar pattern – an increase in the number of projects but a modest decline in the value of projects – also holds in the forest sector. The longer-term picture shows a decline in the number and value of energy and mining projects since 2014. In contrast, there has been a general upward trend in the value of forest projects since 2014.

Figure 2. Total Projects Included from 2014 to 2018



A more detailed breakdown of changes since the June 2017 update shows that:

- Project cancellations and suspensions were concentrated in the energy sector. In total, 31 major energy projects with a combined capital cost of \$73 billion were cancelled or suspended over the past year. Among these were 11 renewable electricity projects in Ontario. The cancellation of two LNG facilities on the west coast and the suspension of two pipeline projects originating in Alberta accounted for \$50 billion in foregone investment alone.³
- All sectors contributed to the increase in the number and value of project completions relative to previous years. Since the June 2017 update, 62 energy projects valued at \$63 billion, 11 mining projects valued at \$11 billion, and 7 forest projects valued at \$0.8 billion were completed.⁴ Although completed projects are removed from inventory totals, they continue to benefit Canadians throughout their productive lifetimes, including through employment of operational workforces and contributions to government revenues.

Changes from 2017 by Sector

	Energy	Mining	Forest
2017 Inventory Totals	350 projects (\$601B)	101 projects (\$80B)	20 projects (\$3.1B)
Added	57 projects (\$35B)	31 projects (\$13B)	11 projects (\$0.5B)
Completed	62 projects (\$63B)	11 projects (\$11B)	7 projects (\$0.8B)
Suspended/Cancelled	31 projects (\$73B)	6 projects (\$4B)	0 projects (\$0.0B)
Removed	27 projects (\$9B)	7 projects (\$5B)	1 project (\$0.2B)
2018 Inventory Totals	287 projects (\$510B)	108 projects (\$72B)	23 projects (\$2.9B)

Note: Revisions to cost estimates of existing projects may influence changes in total capital cost between years.

- New projects continued to come forward in all sectors. However, the value of energy projects added to the inventory from one year to the next has decreased for four consecutive years. Specifically, the value of energy projects added during the June 2018 update was \$35 billion, whereas the comparable values for the 2015, 2016, and 2017 updates were \$146 billion, \$61 billion, and \$52 billion respectively. In contrast, the number and value of mining projects added to the inventory from one year to the next has increased for the past three consecutive years. During the June 2018 update, 31 mining projects with a combined capital cost of \$13 billion were added.

Added Projects by Sector and Year

	Energy	Mining	Forest
2015	76 projects (\$146B)	23 projects (\$13B)	10 projects (\$0.5B)
2016	73 projects (\$61B)	6 projects (\$1.3B)	6 projects (\$0.9B)
2017*	93 projects (\$52B)	18 projects (\$4.7B)	15 projects (1.9B)
2018*	57 projects (\$35B)	31 projects (\$13B)	11 projects (\$0.5B)

*In 2017, as a result of the new \$10 million threshold for clean technology projects, 23 clean technology projects valued above \$10 million but below the capital cost thresholds used for non-clean tech projects – i.e., projects that would have been excluded from the inventory in prior years – were added. These projects had a combined capital cost of \$347 million; all were in the energy sector. In 2018, just one such clean technology project was added to the inventory.

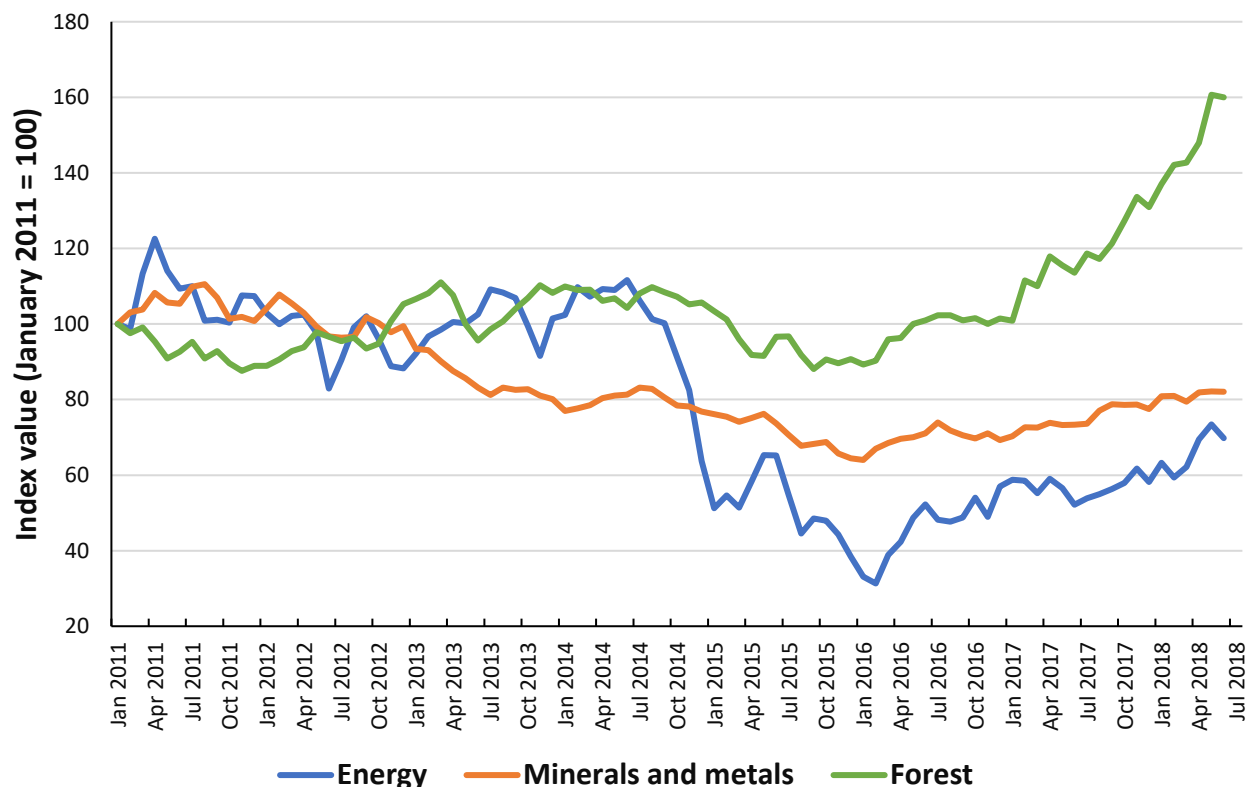
³ Aurora LNG (\$17 billion), Grassy Point LNG (\$10 billion), Energy East (\$16 billion), and Northern Gateway (\$7 billion).

⁴ Examples of such projects include: a \$17 billion oil sands mining project in Alberta; a \$14 billion offshore oil project off Newfoundland and Labrador; a \$5 billion hydro project in Manitoba; a \$4 billion potash mine in Saskatchewan; a \$2 billion gold mine in Ontario; and over ten oil or natural gas pipelines worth a combined \$11 billion.

ECONOMIC CONTEXT

Canadian natural resource producers act as price-takers in international markets and, as such, they are affected by price fluctuations associated with cycles in global supply and demand. Changes in the number, value and status of major resource projects over the years are often the result of a wide range of external economic factors.

Figure 3. Commodity Price Indices, 2011 to Present (Bank of Canada)



Note: The energy index reflects production and prices of Crude Oil [WTI, Brent, Western Canada Crude], Natural Gas, Coal. The metals and minerals index includes Potash, Aluminum, Gold, Nickel, Iron, Copper, Silver, Zinc and Lead. The forest index includes lumber, pulp and newsprint.

During 2017 and the first half of 2018, commodity prices rose in the energy, mining, and forest sectors amid stronger-than-expected global economic growth. Near-term indicators of investment activity have not risen commensurately, however. According to Statistics Canada's *Capital and Repairs Expenditures Survey* released in February 2018, businesses' intentions for capital spending in 2018 are down across most industries in the energy, mining, and forest sectors relative to 2017 preliminary estimates, with a decline of \$4.3 billion anticipated in the oil and gas extraction sector alone.

A possible contraction in investment activity in 2018 is consistent with forecasts made in the Bank of Canada's *April 2018 Monetary Policy Report*. The report noted that "growth of business investment in export-oriented goods industries is anticipated to be restrained by elevated uncertainty around trade policy, regulatory concerns and incentives to shift investment to the United States following the US tax reform". The Bank also forecast that investment in the energy sector will decrease in 2018 and remain roughly flat thereafter, emphasizing that "low prices for WCS and limited pipeline and rail capacity out of Western Canada could discourage longer-term investment in the oil sands".

The specific factors affecting investment decisions vary by sector. For example:

- **Oil.** The latter half of 2017 and the first half of 2018 saw global oil price benchmarks continue to rise amid strong global demand, despite U.S. production surpassing the 10 million barrels per day mark. However, the rise in global benchmark prices has not been matched by higher prices for Canadian producers, in part due to transportation bottlenecks that could prevail until at least 2020, when a number of major pipeline projects are expected to become operational. Most recently, global oil benchmarks seesawed as supply disruptions associated with the ongoing economic crisis in Venezuela and U.S. sanctions in Iran prompted a deal among OPEC members and other oil producing nations to expand their collective output, which in turn led to concern about diminishing spare capacity in Saudi Arabia.
- **Gas.** Growth in demand for natural gas is being driven by the Asia-Pacific region where rising energy demand and concerns about poor air quality have led to efforts to displace coal as the primary energy source. In the shorter term, however, continued growth in U.S. production of shale gas and liquefied natural gas (LNG) has kept prices low, with the Henry Hub price consistently under US\$3 per million Btu. The lack of investment associated with current low prices is setting the scene for an emerging global LNG shortfall that, without capacity additions, could materialize as early as 2025. Spot prices for LNG in Asia have been rebounding from 2016 lows, spiking this summer to over US\$10 per million Btu amid strong demand from China and production outages in the U.S., Australia, and Malaysia.
- **Minerals and metals.** Synchronised global growth will support robust demand for most minerals and metals, with supply constraints driving price movements in the near term. Looking ahead, aluminium markets will be balanced and prices will remain at highs not seen since the start of this decade. Declining inventories of copper will support rising prices, and strong demand for stainless steel will drive nickel prices higher for the remainder of the decade. Past closures of major zinc mines in Ireland and Australia will help propel prices for this metal to ten-year highs in 2019. Gold is expected to remain relatively stable due to expectations of higher U.S. interest rates in response to favourable economic conditions. Steel prices will benefit from robust global demand in the remainder of 2018 and in 2019, which will stabilise iron ore and metallurgical coal prices.
- **Forest.** The financial health of Canada's forest sector has improved in recent years thanks in part to a strong U.S. housing market that, until recently, was supported by ultra-low interest rates. However, a downturn in prices across many forest products is expected to begin next year. Canada's forest sector is also facing trade disputes and constraints on domestic fibre supply (the latter due to forest fires, pest disturbances, and domestic policy changes). Most recent investments have thus been small-scale and focused on maintenance or improving operational efficiency. Where significant new investments have been made, they have been geared toward emerging products and markets. These include extensions to wood pellet production capacity to meet ever-rising demand from bio-refineries in Asia, and conversions of paper mills and machines to produce more in-demand products such as packaging or specialty paper.
- **Clean technology.** Recent drivers of major clean technology projects in Canada include implementation of carbon pricing under the Pan-Canadian Framework on Clean Growth and Climate Change, and progress on the Clean Fuel Standard, which independent analysts expect to stimulate billions of dollars worth of investment in clean fuels. The federal government has made substantial investments in clean technology research, development and demonstration, most recently through initiatives such as the Clean Growth Program. Provincial governments are also funding clean technology innovation and many are making significant investments in renewable energy projects. Export-oriented clean technology projects are expected to continue alongside growth in the global clean technology market, which is expected to double in size from over US\$1 trillion today to US\$2.5 trillion by 2022.

OVERVIEW OF SECTOR AND PROJECT ANALYSIS FOR 2018

Energy Projects

As of June 2018, there are 287 energy projects in the inventory with a combined capital cost of \$510 billion. Energy projects span many sub-sectors, including those in the oil and gas industry (e.g., oil sands, offshore, LNG, export terminals, storage facilities, pipelines) and in electricity generation and transmission (e.g., nuclear, renewables, power lines). Oil and gas-related projects account for 77 percent of the total value of energy projects in the inventory.

Both the number and value of major energy projects declined significantly from last year. As discussed above, this was due to a combination of factors, including: the cancellation or suspension of some very large projects; the completion of several large projects amid a strong year for energy project completions more generally; and an ongoing decline in the value of newly added projects.

	2015	2016	2017	2018
Total Energy Projects	343 projects (\$570B)	306 projects (\$598B)	350 projects (\$601B)	287 projects (\$510B)
Oil and Gas	155 projects (\$456B)	147 projects (\$485B)	143 projects (\$478B)	125 projects (\$393B)
Electricity	184 projects (\$113B)	155 projects (\$108B)	197 projects (\$117B)	152 projects (\$111B)
Other¹	4 projects (\$1B)	4 projects (\$5B)	10 projects (\$5B)	10 projects (\$6B)

¹ Other primarily includes biomass/biofuel production activities. Totals may not add up due to rounding.

Oil Sands

There are 51 oil sands-related projects (e.g., in situ, mining, upgrading and refining) in the inventory, representing \$137 billion in potential investment. This compares to 53 projects valued at \$168 billion in the previous year's inventory. Just two new oil sands-related projects with a combined capital cost of \$1.6 billion were added since the June 2017 update. At the same time, just one existing oil sands-related project, with a capital cost of \$12 billion, was cancelled or suspended. Most of the decline in the value of oil sands projects since last year was thus driven by the completion of three oil sands-related projects with a combined capital cost of \$22 billion. These include the \$17 billion Fort Hills mining project operated by Suncor and the \$4 billion in-situ Mackay River project owned by PetroChina.

	2015	2016	2017	2018
Oil Sands Projects¹	62 projects (\$165B)	47 projects (\$148B)	53 projects (\$168B)	51 projects (\$137B)

¹ Excludes pipeline projects.

Natural Gas

There are 47 natural gas-related projects (e.g., natural gas pipelines, export facilities and gas-fired generators) in the inventory, representing \$160 billion in potential investment. This compares to 59 projects valued at \$193 billion in the previous year's inventory. Since the June 2017 update, seven new natural gas-related projects with a combined capital cost of just over \$2 billion were added to the inventory. Meanwhile, 15 natural gas-related projects with a combined capital cost of \$7 billion were completed. Most of the decline in the value of natural gas-related projects between the June 2017 and June 2018 updates was thus driven by the cancellation of two multi-billion LNG projects on the west coast. These were the \$17 billion

Aurora LNG Facility cancelled by Nexen and partners in September 2017, and the \$10 billion Grassy Point LNG project cancelled by Woodside Energy in March 2018.

	2015	2016	2017	2018
Natural Gas Projects	65 projects (\$215B)	68 projects (\$217B)	59 projects (\$193B)	47 projects (\$160B)

Pipelines

There are 24 pipeline projects in the inventory, representing \$68 billion in potential investment. This compares to 33 pipeline projects valued at \$92 billion in last year's inventory. Since the June 2017 update, five pipeline projects with a combined capital cost of \$27 billion were cancelled or suspended. Meanwhile, eight new pipeline projects with a combined capital cost of \$4 billion were added to the inventory, and 12 existing projects with a combined capital cost of \$11 billion were completed.

	2015	2016	2017	2018
Pipeline Projects	41 projects (\$65B)	41 projects (\$95B)	33 projects (\$92B)	24 projects (\$68B)

Mining Projects

There are 108 major mining-related projects (e.g., mine constructions, redevelopments, expansions and processing facilities) in the inventory, representing \$72 billion in potential investment. Metal mines (e.g., gold, copper, nickel, zinc) account for two thirds of the value of major mining-related projects. Non-metal mines (e.g., potash, diamonds) and coal mines account for most of the remainder.

As discussed above, the past year was a strong one for new mining investment: 31 new mining-related projects with a combined capital cost of \$13 billion were added to the inventory. However, the total value of mining-related projects in the inventory declined, due to a combination of project completions (\$11 billion in value) and project cancellations and suspensions (\$4 billion in value). Among the new mining-related projects announced since the June 2017 update, the most significant were a \$1.3 billion gold mining project in Ontario owned by Goldcorp Inc., a \$1 billion coal mining project in Alberta owned by Ram River Coal, and a \$900 million nickel mining project in Ontario owned by Glencore PLC.

Of the mining-related projects, Saskatchewan accounts for 24 percent of the total value, British Columbia for 21 percent, Quebec for 16 percent, and Ontario for 14 percent. The remaining projects are spread across all provinces and territories with the exception of Prince Edward Island.

	2015	2016	2017	2018
Total Mining-related projects	124 projects (\$140B)	97 projects (\$90B)	101 projects (\$80B)	108 projects (\$72B)
Mines – Metals	85 projects (\$91B)	61 projects (\$49B)	65 projects (\$48B)	76 projects (\$48B)
Mines – Non-metals	20 projects (\$29B)	20 projects (\$24B)	21 projects (\$26B)	19 projects (\$20B)
Mines – Coal	12 projects (\$7B)	9 projects (\$5B)	6 projects (\$3B)	10 projects (\$4B)
Other¹	7 projects (\$13B)	7 projects (\$12B)	9 projects (\$3B)	3 projects (\$0.5B)

¹ Other primarily includes processing plants, smelters, refineries and export terminals.

Forest Projects

The number and value of major forest-related projects (e.g., lumber, pulp and paper, biofuel production) has remained relatively stable for the past four years. Meanwhile, the value of projects in the inventory has been trending upward. As of the June 2018 update, there were 23 major forest projects across Canada, representing \$2.9 billion in potential investment. This compares to 20 forest projects valued at \$1.7 billion in the 2015 inventory.

Since last year's update, 11 new forest projects with a combined capital cost of \$0.5 billion were added to the inventory, while seven projects with a combined capital cost of \$0.8 billion were completed. None of the major forest sector projects in last year's inventory were cancelled or suspended (one was removed for data quality reasons). Projects added to the inventory this year include: a \$150 million bio-product mill in Quebec owned by Fortress Global Enterprises; a \$52 million capacity increase to a pulp mill in Quebec owned by Resolute Forest Products Inc.; a \$43 million pellet plant in Quebec owned by La Granaudière; and a \$20 million pellet plant in British Columbia owned by Skeena Sawmills.

With 13 projects, Quebec accounts for 73 percent of forest-related capital cost expenditures. The remaining projects and capital expenditures are spread across New Brunswick, Ontario, Saskatchewan, Alberta and British Columbia.

	2015	2016	2017	2018
Total Forest-related Projects	20 projects (\$1.7B)	18 projects (\$2.3B)	20 projects (\$3.2B)	23 projects (\$2.9B)

Clean Technology Projects

Clean technologies have a crucial role to play in Canada's transition to a low-carbon economy. In addition to reducing the environmental impacts of resource development, clean technologies have potential to bolster resource firms' productivity and competitiveness and to allow them to capture new markets, including through the development of new and innovative products.⁵ Resource firms across Canada are making significant investments in clean technology solutions, and these investments are expected to continue as progress is made toward the targets of the Pan-Canadian Framework on Clean Growth and Climate Change.

Last year, the *Major Projects Inventory Report* included an inaugural segment on major clean technology projects. This year, major clean technology projects were again included in the inventory using the same \$10 million capital cost threshold.

Clean technology projects included in the Major Projects Inventory are largely renewable electricity projects (e.g., hydro, wind, solar, biomass, tidal, and geothermal) and non-emitting energy projects (e.g., nuclear, biofuels, and carbon capture and storage) in the energy and forest sectors. While not necessarily captured here, several mining and oil and gas projects include significant clean technology components that will help to reduce the overall environmental impact of resource development in Canada. It is also important to note that the inventory captures only clean technology investments made in the context of natural resources and does not include investments made in other sectors.

As of the June 2018 update, there are 135 clean technology projects in the inventory representing \$100.6 billion in potential investment. These projects are included as subsets of the energy and forest sector totals and are not additional to the numbers reported above. Hydro projects account for roughly half the number

⁵ According to [recent data](#) from Statistics Canada, the production of clean technologies, clean energy, and environmental goods and services contributed three percent of Canada's gross domestic product and provided jobs for 274,000 Canadians in 2016.

and value of clean technology projects (64 projects valued at \$45.9 billion). The remaining clean technology projects are primarily wind projects (26 projects valued at \$8.8 billion) and biomass/biofuels projects (28 projects valued at \$6.2 billion).

	2017	2018
Total Clean Technology Projects	172 projects (\$107.5B)	135 projects (\$100.6B)
Hydro	80 projects (\$49.7B)	64 projects (\$45.9B)
Wind	42 projects (\$10.6B)	26 projects (\$8.8B)
Biomass/Biofuels	31 projects (\$8.2B)	28 projects (\$6.2B)
Solar	9 projects (\$0.6B)	6 projects (\$0.8B)
Nuclear	4 projects (\$28.5B)	4 projects (\$28.3B)
Carbon Capture and Storage	2 projects (\$9.1B)	2 projects (\$10.3B)
Geothermal	2 projects (\$0.4B)	1 project (\$0.03B)
Tidal	1 projects (\$0.1B)	0 projects (\$0B)
Other*	1 projects (\$0.2B)	4 projects (\$0.3B)

*Other includes micro-grid projects, low-sulphur marine fuel plants, and biochemical production facilities.

Note: Clean technology projects were included in previous inventories as they fall within the energy and forest sectors; tracking of clean technology projects for reporting purposes only began in 2017.

The number and value of clean technology projects in the inventory declined over the past year. Since the June 2017 update, 26 projects with a combined capital cost of \$8.4 billion were completed and became operational (11 hydro projects, 10 wind projects, three biomass/biofuels projects, one solar project, and one tidal project). Although 25 new clean technology projects with a combined capital cost of \$3.8 billion were added to the inventory, their effects on inventory totals were offset by declines elsewhere. Specifically, 33 clean technology projects with a combined capital cost of \$6.4 billion were cancelled, suspended, or removed, the majority of which were in Ontario. Nevertheless, both the number and value of clean technology projects remain significant: clean technology projects account for almost one third of all projects in the current inventory, and over one-sixth their total value.

Almost 40 percent of clean technology projects in the inventory are currently under construction, whereas just over 20 percent of other types of projects in the inventory have reached that stage, demonstrating the relative urgency of completing clean technology projects to meet emissions reductions goals.

While clean technology investments are taking place in all ten provinces, Ontario and British Columbia are still leading, each having \$25-30 billion worth of major clean technology projects planned or under construction. Manitoba, Quebec, and Alberta each have \$10-15 billion worth of major clean technology projects planned or under construction. Two nuclear plant refurbishment projects account for most of the clean technology investment planned in Ontario (\$25.8 billion). Similarly, two carbon capture and storage projects account for a significant portion of clean technology investment in Alberta (\$10.3 billion). Since the June 2017 update, British Columbia, Alberta, and Quebec each added over \$1 billion worth of new clean technology projects to the inventory.

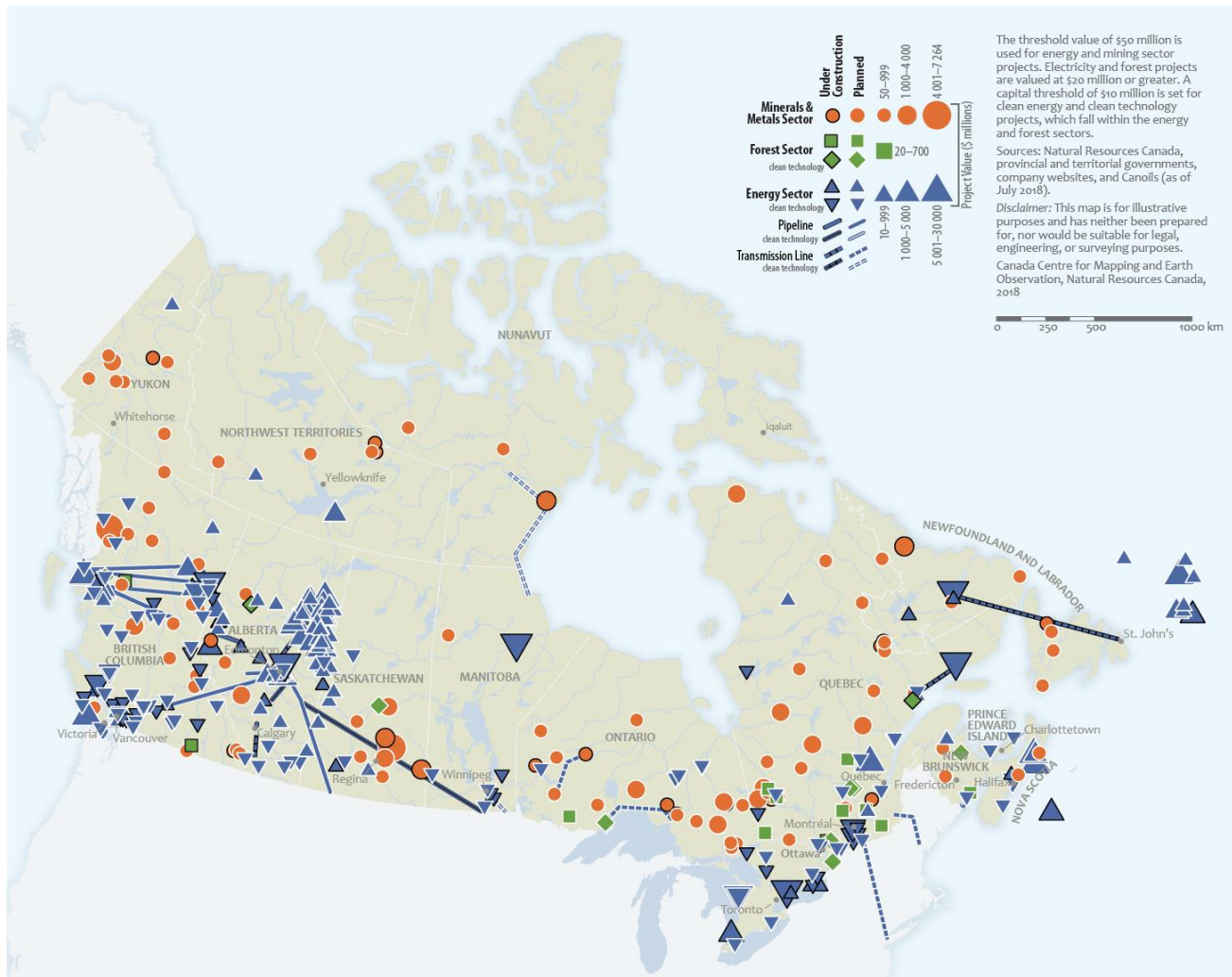
Although all efforts have been made to capture major clean technology investments across Canada, these results are not necessarily fully representative of the level of clean technology investment activity in certain regions. For example, some significant investments in smaller jurisdictions may not have been captured because of the \$10 million threshold used for clean technology projects.

MAJOR NATURAL RESOURCE PROJECTS

Planned and Under Construction, 2018-2028



Canada



1 Highlights

- As of June 2018, there are 418 projects currently under construction or planned over the next 10 years, representing \$585 billion in potential capital investment.
- Energy projects accounted for 87 percent of the total value of major projects in the inventory, minerals and metals projects accounted for 12 percent, and forest projects accounted for the remaining one percent.
- Despite challenges associated with shifting markets, trade disputes, and tax and regulatory changes in the United States, 99 projects valued at \$48 billion were added to the inventory. In addition, 80 major projects valued at \$76 billion – including 12 pipeline projects – were completed and began production.
- However, 37 major projects worth a combined \$77 billion were cancelled or suspended. An additional 35 projects worth \$15 billion were removed from the inventory for various data quality reasons.
- These changes led to a net \$99 billion decline in the value of projects in the inventory. Most of the decline occurred in the oil and gas sector, whereas the value of clean technology projects remained robust, at \$100 billion.

2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	191	\$403	88	\$59	18	\$2.6	297	\$465
Announced	42	\$90	29	\$12	13	\$1.3	84	\$104
Under Review	73	\$139	35	\$22	2	\$0.7	110	\$161
Approval Received	51	\$166	22	\$24	0	\$0.0	73	\$190
Planned – Status Unknown	25	\$9	2	\$1	3	\$0.5	30	\$11
Under Construction	96	\$106	20	\$13	5	\$0.2	121	\$120
Total	287	\$510	108	\$72	23	\$2.9	418	\$585

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	342	\$534	272	\$505	319	\$510	297	\$465
Under Construction	145	\$178	149	\$186	152	\$174	121	\$120
Total	487	\$711	421	\$691	471	\$684	418	\$585

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

4 Projects by Province/Territory

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
British Columbia	86	\$190	20	\$15	3	\$0.09	109	\$206
Alberta	95	\$175	6	\$3.1	1	\$0.03	102	\$178
Saskatchewan	9	\$3.2	8	\$17.1	1	\$0.40	18	\$21
Manitoba	13	\$10	1	\$0.4	0	\$0	14	\$10
Ontario	27	\$36	20	\$10.1	3	\$0.16	50	\$47
Quebec	22	\$22	21	\$11.5	13	\$2.09	56	\$38
New Brunswick	4	\$0.3	2	\$0.8	2	\$0.09	8	\$1.2
Nova Scotia	8	\$21	2	\$0.4	0	\$0	10	\$21
Prince Edward Island	2	\$0.08	0	\$0	0	\$0	2	\$0.08
Newfoundland and Labrador	14	\$24	11	\$4.6	0	\$0	25	\$28
Yukon	1	\$0.1	8	\$4.8	0	\$0	9	\$4.9
Northwest Territories	2	\$2.8	6	\$2.3	0	\$0	8	\$5.2
Nunavut	0	\$0	3	\$2.0	0	\$0	3	\$2.0
Multi-jurisdictional	4	\$23	0	\$0	0	\$0	4	\$23

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

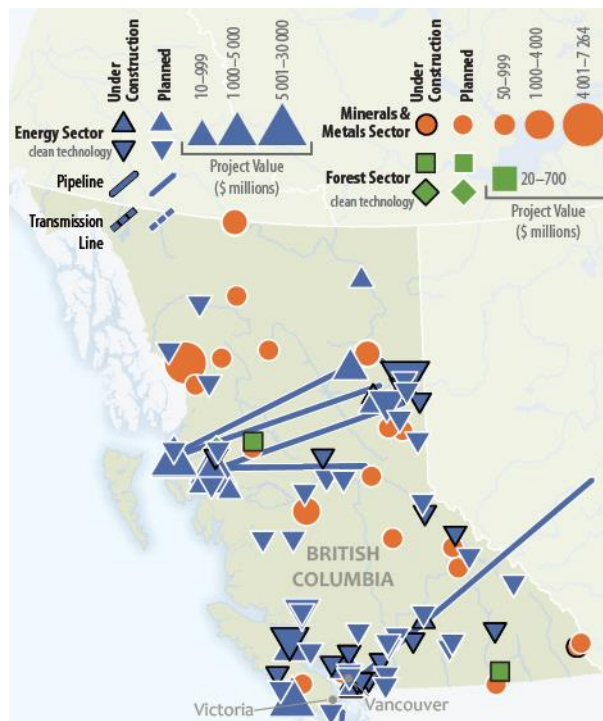
Planned and Under Construction, 2018-2028



British Columbia

1 Highlights

- A total of 109 projects are under construction or planned over the next 10 years in British Columbia, representing \$206 billion in investment.
- Energy projects account for more than 90 percent of the value of major project investment in the province.
- In 2018, there were 55 clean technology projects included in the B.C. inventory, valued at \$27 billion.
- These included: 32 hydro projects valued at \$19 billion, 10 wind projects valued at 4.3 billion, 12 biomass/biofuels projects valued at \$3.4 billion, and one geothermal project valued at \$30 million.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	57	\$175.1	19	\$15.0	1	\$0.02	77	\$190.1
Announced	10	\$54.2	5	\$1.5	1	\$0.02	16	\$55.7
Under Review	26	\$54.7	9	\$5.0	0	\$0	35	\$59.7
Approval Received	9	\$62.6	5	\$8.5	0	\$0	14	\$71.1
Planned – Status Unknown	12	\$3.7	0	\$0	0	\$0	12	\$3.7
Under Construction	29	\$15.2	1	\$0.06	2	\$0.07	32	\$15.4
Total	86	\$190.3	20	\$15.1	3	\$0.09	109	\$206

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	113	\$234	84	\$249	84	\$222	77	\$190
Under Construction	46	\$14	43	\$22	38	\$18	32	\$15
Total	159	\$248	127	\$271	122	\$240	109	\$206

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

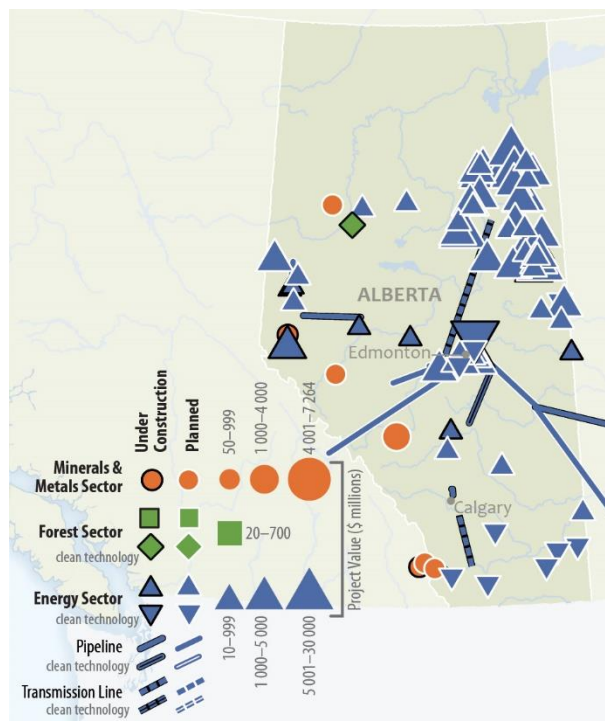
Planned and Under Construction, 2018-2028



Alberta

1 Highlights

- A total of 102 projects are currently under construction or planned over the next 10 years in Alberta, representing \$178 billion in investment.
- Energy projects account for more than 90 percent of the value of major project investment in the province.
- In 2018, there were 13 clean technology projects included in the Alberta inventory, valued at \$13 billion.
- These included two carbon capture and storage projects valued at \$10.3 billion, six wind projects valued at \$1.7 billion, two solar projects valued at \$0.5 billion, two biofuels projects valued at \$0.05 billion, and one low sulfur marine fuel facility valued at \$0.1 billion.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	72	\$143	5	\$3	0	\$0	77	\$146
Announced	20	\$26	2	\$1.4	0	\$0	22	\$27
Under Review	14	\$48	1	\$0.4	0	\$0	15	\$49
Approval Received	34	\$68	0	\$0	0	\$0	34	\$68
Planned – Status Unknown	4	\$0.8	2	\$1.2	0	\$0	6	\$2
Under Construction	23	\$31	1	\$0.08	1	\$0.03	25	\$31
Total	95	\$175	6	\$3.1	1	\$0.03	102	\$178

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	97	\$136	73	\$114	73	\$148	77	\$146
Under Construction	36	\$68	45	\$74	34	\$59	25	\$31
Total	133	\$204	118	\$187	107	\$207	102	\$178

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

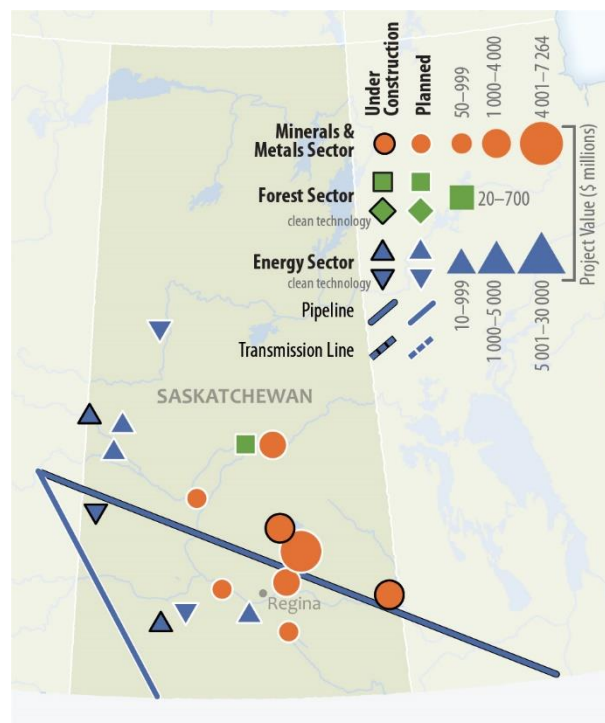
Planned and Under Construction, 2018-2028



Saskatchewan

1 Highlights

- A total of 18 projects are currently under construction or planned over the next 10 years in Saskatchewan, representing \$21 billion in investment.
- Minerals and metals projects account for over 80 percent of the value of major project investment in the province.
- In 2018, there were three clean technology projects included in the Saskatchewan inventory, valued at \$0.8 billion.
- These included two biomass projects valued at \$0.5 billion and one wind project valued at \$0.3 billion.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	7	\$2.4	6	\$10.1	1	\$0.4	14	\$12.9
Announced	2	\$0.5	1	\$0.3	0	\$0	3	\$0.8
Under Review	3	\$1.1	3	\$6.2	0	\$0	6	\$7.2
Approval Received	0	\$0.0	2	\$3.7	0	\$0	2	\$3.7
Planned – Status Unknown	2	\$0.8	0	\$0	1	\$0.4	3	\$1.2
Under Construction	2	\$0.9	2	\$7	0	\$0	4	\$7.9
Total	8	\$3.2	8	\$17.1	1	\$0.4	18	\$20.7

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	11	\$13	9	\$9	14	\$13	14	\$13
Under Construction	7	\$14	5	\$11	7	\$14	4	\$8
Total	18	\$27	14	\$20	21	\$27	18	\$21

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

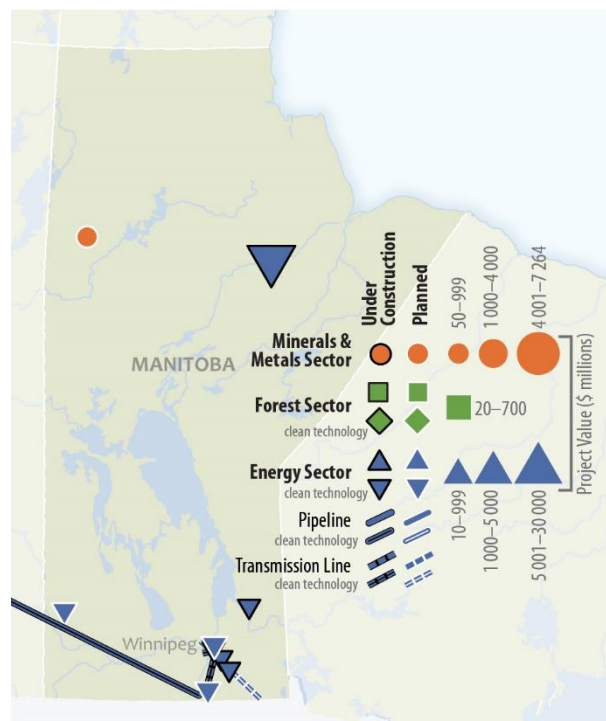
MAJOR NATURAL RESOURCE PROJECTS

Planned and Under Construction, 2018-2028



1 Highlights

- A total of 14 projects are currently under construction or planned over the next 10 years in Manitoba, representing \$10 billion in investment.
- Energy projects account for over 90 percent of the value of major project investment in the province.
- In 2018, there were 13 clean technology projects included in the Manitoba inventory, valued at \$10 billion. All were hydroelectric generation and/or transmission projects.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	4	\$0.65	1	\$0.4	0	\$0	5	\$1.1
Announced	0	\$0	1	\$0.4	0	\$0	1	\$0.4
Under Review	3	\$0.6	0	\$0	0	\$0	3	\$0.6
Approval Received	1	\$0.05	0	\$0	0	\$0	1	\$0.05
Planned – Status Unknown	0	\$0	0	\$0	0	\$0	0	\$0
Under Construction	9	\$9.4	0	\$0	0	\$0	9	\$9.4
Total	13	\$10.0	1	\$0.4	0	\$0	14	\$10.4

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	3	\$1	2	\$1	3	\$1	5	\$1
Under Construction	3	\$10	2	\$10	10	\$14	9	\$9
Total	6	\$11	4	\$11	13	\$15	14	\$10

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

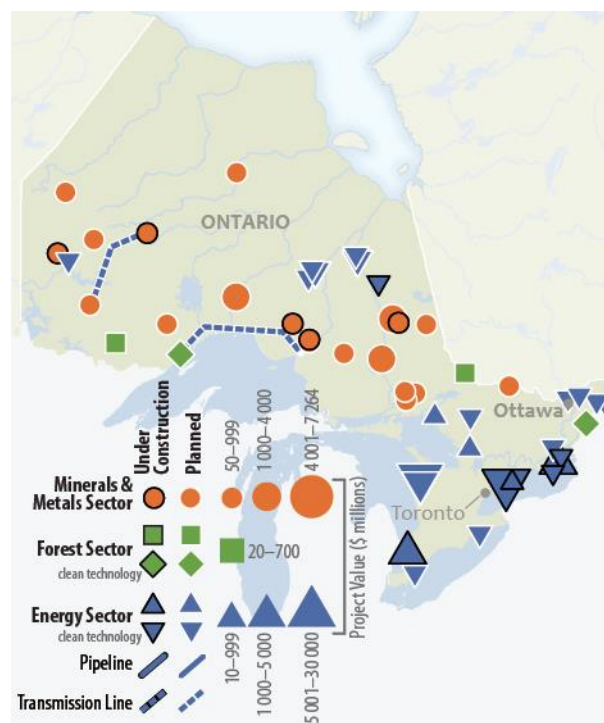
Planned and Under Construction, 2018-2028



Ontario

1 Highlights

- A total of 50 projects are currently under construction or planned over the next 10 years in Ontario, representing \$47 billion in investment.
- Energy projects account for nearly 80 percent of the value of major project investment in the province.
- There were 24 clean technology projects included in the Ontario inventory, valued at \$30 billion.
- These included three nuclear projects valued at \$28 billion, five wind projects valued at \$1.5 billion, four solar projects valued at \$0.3 billion, 10 hydro projects valued at \$0.2 billion, one biomass project valued at \$73 million, and one biochemical refinery valued at \$21 million.



2 Summary Table

Status	Energy*		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	11	\$18.1	15	\$9.2	3	\$0.16	29	\$27.5
Announced	6	\$0.1	7	\$4.2	1	\$0.02	14	\$4.4
Under Review	5	\$18.0	5	\$3.1	0	\$0	10	\$21.1
Approval Received	0	\$	3	\$1.8	0	\$0	3	\$1.8
Planned – Status Unknown	0	\$0	0	\$0	2	\$0.14	2	\$0.1
Under Construction	16	\$18.2	5	\$0.9	0	\$0	21	\$19.1
Total	27	\$36.3	20	\$10.1	3	\$0.16	50	\$46.6

Source: Major Projects Inventory (as of June 2018 for minerals and metals and forest projects, and as of July 26 2018 for energy projects – see footnote 1)

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	20	\$15	19	\$24	57	\$26	29	\$28
Under Construction	14	\$24	8	\$19	8	\$18	21	\$19
Total	34	\$39	27	\$43	65	\$44	50	\$48

Source: Major Projects Inventory (as of June 2018 for minerals and metals and forest projects, and as of July 26 2018 for energy projects – see footnote 1)

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

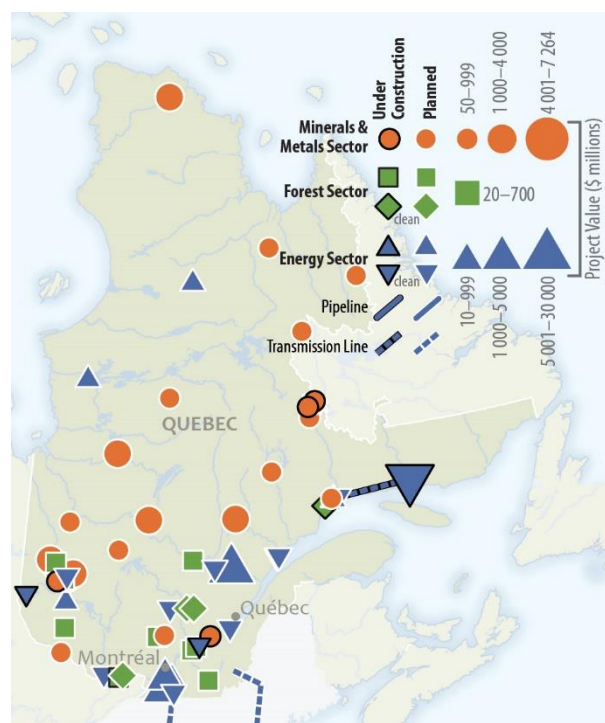
Planned and Under Construction, 2018-2028



Quebec

1 Highlights

- A total of 56 projects are currently under construction or planned over the next 10 years in Quebec, representing \$38 billion in investment.
- Energy projects account for 65 percent of the value of major project investment in Quebec, mining projects account for 30 percent, and forest projects account for five percent.
- In 2018, there were 19 clean technology projects included in the Quebec inventory, valued at \$13.4 billion.
- These included: eight hydro projects valued at \$10.4 billion, seven biomass projects valued at \$2.0 billion, three wind projects valued at \$0.8 billion, and a bioproduct mill valued at \$150 million.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	15	\$13.1	18	\$10.9	11	\$2.0	44	\$26.0
Announced	2	\$3.2	4	\$1.4	10	\$1.3	16	\$5.8
Under Review	8	\$8.6	9	\$4.4	1	\$0.7	18	\$13.8
Approval Received	1	\$0.07	5	\$5.1	0	\$0	6	\$5.2
Planned – Status Unknown	4	\$1.3	0	\$0	0	\$0	4	\$1.3
Under Construction	7	\$11.7	3	\$0.6	2	\$0.1	12	\$12.4
Total	22	\$24.8	21	\$11.5	13	\$2.1	56	\$38.5

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	41	\$53	35	\$28	39	\$24	44	\$26
Under Construction	21	\$15	22	\$18	28	\$16	12	\$12
Total	62	\$67	57	\$46	67	\$40	56	\$38

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

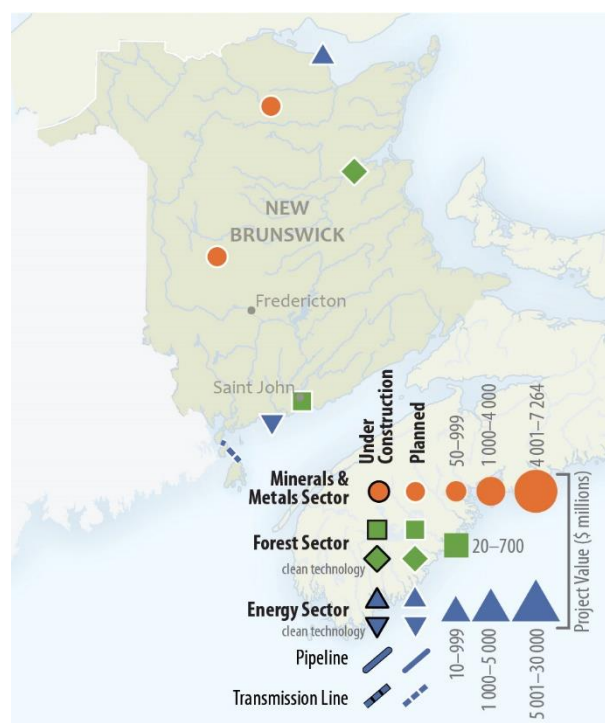
Planned and Under Construction, 2018-2028



New Brunswick

1 Highlights

- A total of 8 projects are currently under construction or planned over the next 10 years in New Brunswick, representing \$1.2 billion in investment.
- Mining projects account for two thirds of the value of major project investment in the province, whereas energy projects account for most of the remainder.
- In 2018, there were two clean technology projects included in the New Brunswick inventory, valued at \$0.1 billion.
- These included a nuclear project valued at \$53 million and a biomass project valued at \$45 million.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	4	\$0.3	2	\$0.8	2	\$0.09	8	\$1.2
Announced	0	\$0	1	\$0.3	1	\$0.04	2	\$0.3
Under Review	3	\$0.1	1	\$0.6	1	\$0.05	5	\$0.7
Approval Received	1	\$0.2	0	\$0	0	\$0	1	\$0.2
Planned – Status Unknown	0	\$0	0	\$0	0	\$0	0	\$0
Under Construction	0	\$0	0	\$0	0	\$0	0	\$0
Total	4	\$0.3	2	\$0.8	2	\$0.09	8	\$1.2

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	7	\$4	6	\$1	5	\$1.2	8	\$1.2
Under Construction	2	\$0.2	2	\$0.6	2	\$0.4	0	\$0
Total	9	\$4	8	\$2	7	\$1.6	8	\$1.2

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

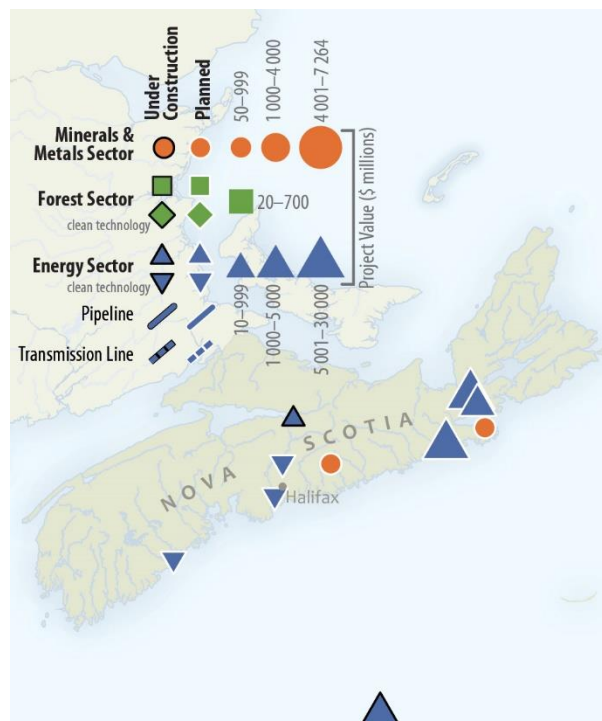
Planned and Under Construction, 2018-2028



Nova Scotia

1 Highlights

- A total of 10 projects are currently under construction or planned over the next 10 years in Nova Scotia, representing \$21 billion in investment.
- Energy projects account for over 90 percent of the value of major project investment in the province.
- In 2018, there were three clean technology projects included in the Nova Scotia inventory, valued at \$0.2 billion. All were biofuel/biomass projects.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	6	\$19.5	2	\$0.4	0	\$0	8	\$19.8
Announced	1	\$0.04	1	\$0.3	0	\$0	2	\$0.3
Under Review	1	\$3.0	0	\$0	0	\$0	1	\$3.0
Approval Received	2	\$16.3	1	\$0.1	0	\$0	3	\$16.4
Planned – Status Unknown	2	\$0.1	0	\$0	0	\$0	2	\$0.1
Under Construction	2	\$1.2	0	\$0	0	\$0	2	\$1.2
Total	8	\$20.6	2	\$0.4	0	\$0	10	\$21.0

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	14	\$24	10	\$20	8	\$20	8	\$19.8
Under Construction	4	\$2	6	\$2	6	\$3	2	\$1.2
Total	18	\$25	16	\$22	14	\$23	10	\$21.0

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

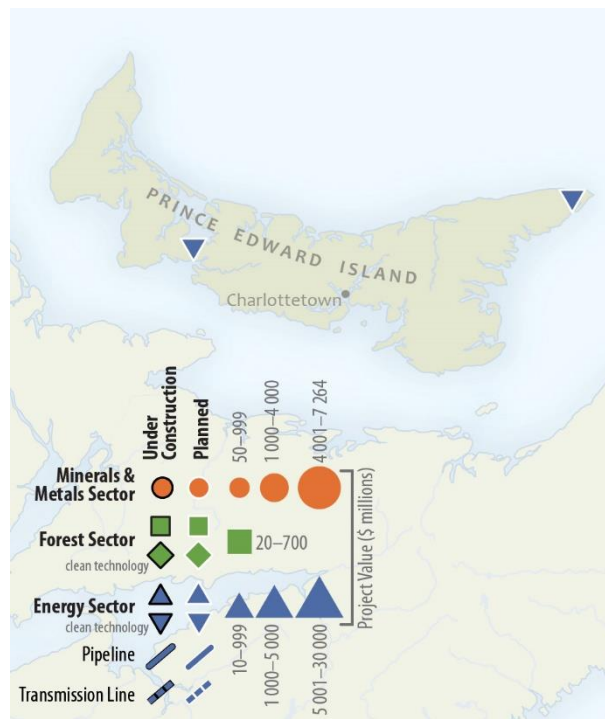
Planned and Under Construction, 2018-2028



Prince Edward Island

1 Highlights

- A total of two projects are currently under construction or planned over the next 10 years in Prince Edward Island, representing \$78 million in investment.
- Both were energy projects: a wind farm project valued at \$60 million and a micro-grid project valued at an estimated \$18 million.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	2	0.08	0	\$0	0	\$0	2	0.08
Announced	0	\$0	0	\$0	0	\$0	0	\$0
Under Review	2	0.08	0	\$0	0	\$0	2	0.08
Approval Received	0	\$0	0	\$0	0	\$0	0	\$0
Planned – Status Unknown	0	\$0	0	\$0	0	\$0	0	\$0
Under Construction	0	\$0	0	\$0	0	\$0	0	\$0
Total	2	0.08	0	\$0	0	\$0	2	0.08

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	1	\$0.14	0	\$0	1	\$0.06	2	\$0.08
Under Construction	0	\$0	1	\$0.14	1	\$0.1	0	0
Total	1	\$0.14	1	\$0.14	2	\$0.2	2	\$0.08

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

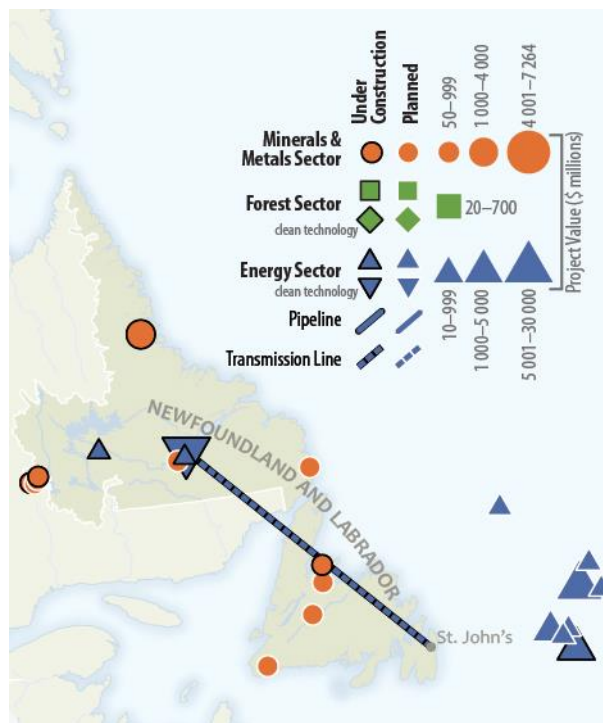
Planned and Under Construction, 2018-2028



Newfoundland and Labrador

1 Highlights

- A total of 25 projects are currently under construction or planned over the next 10 years in Newfoundland and Labrador, representing \$28 billion in investment.
- Energy projects accounted for over 80 percent of the value of major projects in the province.
- In 2018, there was one clean technology project included in the Newfoundland and Labrador inventory, a hydroelectric project valued at \$5.5 billion.



2 Summary Table

Status	Energy*		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	7	\$9.9	8	\$2.2	0	\$0	15	\$12.1
Announced	1	\$6.8	3	\$0.6	0	\$0	4	\$7.4
Under Review	6	\$3.1	2	\$0.3	0	\$0	8	\$3.4
Approval Received	0	\$0	3	\$1.3	0	\$0	3	\$1.3
Planned – Status Unknown	0	\$0	0	\$0.0	0	\$0	0	\$0
Under Construction	7	\$13.6	3	\$2.4	0	\$0	10	\$16.0
Total	14	\$23.5	11	\$4.6	0	\$0	25	\$28.1

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	11	\$13	10	\$10	12	\$10	15	\$12
Under Construction	10	\$30	11	\$27	14	\$29	10	\$16
Total	21	\$44	21	\$37	26	\$39	25	\$28

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

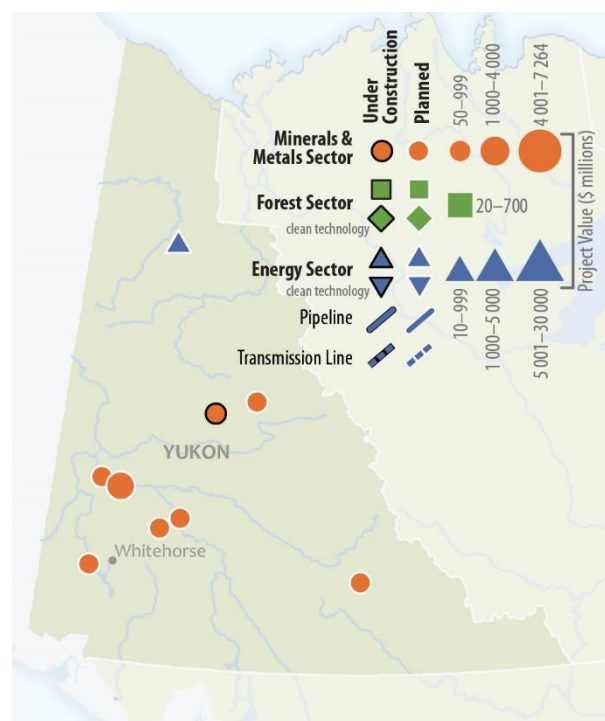
Planned and Under Construction, 2018-2028



Yukon

1 Highlights

- A total of nine projects are currently under construction or planned over the next 10 years in the Yukon, representing \$4.9 billion in investment.
- Mining projects account for over 90 percent of the value of major projects investment in the territory.
- Since the June 2017 update, one gold mine was completed and began production, a planned gold and copper mine was approved, and one polymetallic mining project was added.
- As of the June 2018 update, there were no major clean technology projects in the territory.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	1	\$0.1	7	\$4.5	0	\$0	8	\$4.6
Announced	0	\$0	4	\$1.4	0	\$0	4	\$1.4
Under Review	1	\$0.1	2	\$0.6	0	\$0	3	\$0.7
Approval Received	0	\$0	1	\$2.5	0	\$0	1	\$2.5
Planned – Status Unknown	0	\$0	0	\$0.0	0	\$0	0	\$0.0
Under Construction	0	\$0	1	\$0.3	0	\$0	1	\$0.4
Total	1	\$0.1	8	\$4.8	0	\$0	9	\$4.9

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	9	\$7	9	\$7	8	\$4.5	8	\$4.6
Under Construction	0	\$0	0	0	0	\$0	1	\$0.3
Total	9	\$7	9	\$7	8	\$4.5	9	\$4.9

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

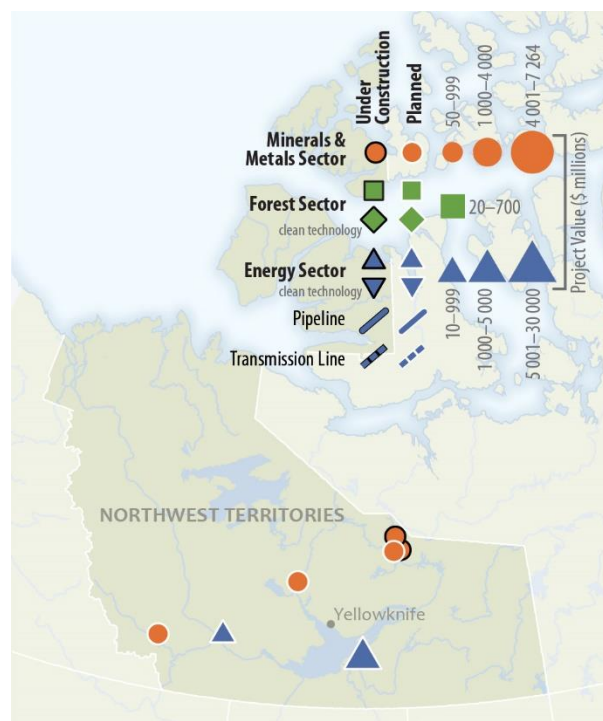
Planned and Under Construction, 2018-2028



Northwest Territories

1 Highlights

- A total of eight projects are currently under construction or planned over the next 10 years in the Northwest Territories, representing \$5.2 billion in investment.
- Energy projects account for over 50 percent of the value of major projects investment in the territory.
- Since the June 2017 update, one diamond mine began construction, while a planned pipeline replacement project was approved.
- As of the June 2018 update, there were no major clean technology projects in the territory.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	2	\$2.8	3	\$1.7	0	\$0	5	\$4.5
Announced	0	\$0	0	\$0.0	0	\$0	0	\$0
Under Review	0	\$0	1	\$0.3	0	\$0	1	\$0.3
Approval Received	1	\$0.5	2	\$1.4	0	\$0	3	\$2.0
Planned – Status Unknown	1	\$2.3	0	\$0	0	\$0	1	\$2.3
Under Construction	0	\$0	3	\$0.6	0	\$0	3	\$0.6
Total	2	\$2.8	6	\$2.3	0	\$0	8	\$5.2

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	6	\$4	4	\$2	5	\$4	5	\$4.5
Under Construction	1	\$1	2	\$1	1	\$0.4	3	\$0.6
Total	7	\$5	6	\$3	6	\$4.5	8	\$5.2

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

MAJOR NATURAL RESOURCE PROJECTS

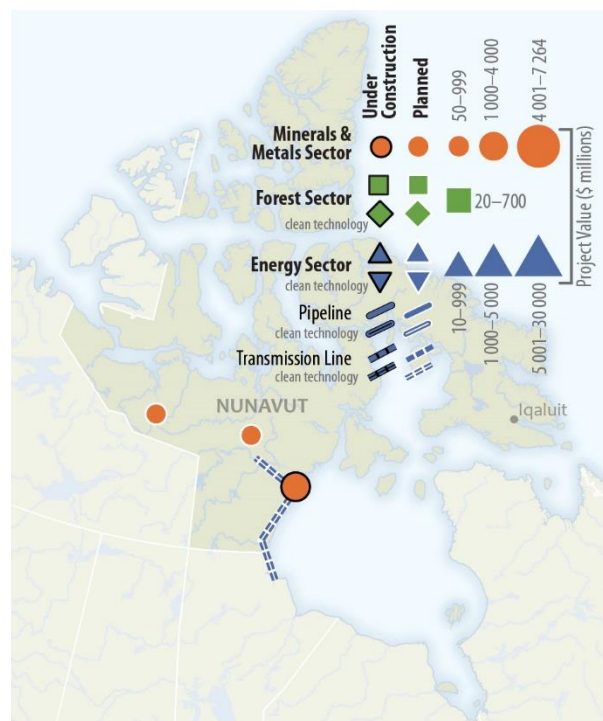
Planned and Under Construction, 2018-2028



Nunavut

1 Highlights

- A total of three projects are currently under construction in or planned over the next 10 years in Nunavut, representing \$2 billion in investment.
- All three projects were gold mining projects.
- In 2018, there were no major clean technology projects in the territory.



2 Summary Table

Status	Energy		Minerals and Metals		Forest		Total	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	0	\$0	2	\$0.8	0	\$0	2	\$0.8
Announced	0	\$0	0	\$0	0	\$0	0	\$0
Under Review	0	\$0	2	\$0.8	0	\$0	2	\$0.8
Approval Received	0	\$0	0	\$0	0	\$0	0	\$0
Planned – Status Unknown	0	\$0	0	\$0	0	\$0	0	\$0
Under Construction	0	\$0	1	\$1.2	0	\$0	1	\$1.2
Total	0	\$0	3	\$2	0	\$0	3	\$2

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.

3 Trends in Project Status 2015-2018

Status	2015		2016		2017		2018	
	#	\$B	#	\$B	#	\$B	#	\$B
Planned	4	\$4	3	\$2	2	\$0.8	2	\$0.8
Under Construction	0	\$0	0	\$0	1	\$1.2	1	\$1.2
Total	4	\$4	3	\$2	3	\$2	3	\$2

Source: Major Projects Inventory, as of June 2018.

Note: Totals may not add up due to rounding.