



Natural Resources: Major Projects Planned and Under Construction — 2016 to 2026

Energy and Mines Ministers' Conference

Winnipeg, Manitoba
August 2016

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CONTENTS

| | |
|---|----|
| Introduction: the Major Projects Inventory..... | 1 |
| Scope and Methodology | 1 |
| National-Level Trends and Analysis | 2 |
| Energy Projects | 4 |
| Mining Projects..... | 5 |
| Forest Projects | 5 |
| National, Provincial and Territorial Summaries | |
| National | 7 |
| British Columbia | 9 |
| Alberta | 10 |
| Saskatchewan | 11 |
| Manitoba | 12 |
| Ontario..... | 13 |
| Quebec..... | 14 |
| New Brunswick | 15 |
| Nova Scotia | 16 |
| Prince Edward Island | 17 |
| Newfoundland and Labrador..... | 18 |
| Yukon | 19 |
| Northwest Territories | 20 |
| Nunavut | 21 |

INTRODUCTION: THE MAJOR PROJECTS INVENTORY

Major natural resource projects are an important source of economic growth and job creation in all regions of Canada. Every year, in order to help monitor the levels of current and potential investment across the energy, mining and forest sectors, the federal government collaborates with the provinces and territories to update the Major Projects Inventory. Updates to the 2016 inventory were made between May and June of 2016 and reflect newly available information on project developments over the 12 months since June 2015.

The report, “Major Projects Planned and Under Construction – 2016 to 2026,” provides an overview of information from the 2016 Major Projects Inventory, while also highlighting trends in data since a comparable scope and methodology for compilation of information was established in 2014. The report begins with a description of the methodology, followed by a section on key economic drivers and recent trends. The report concludes with a series of national, provincial and territorial summaries.

To complement the public release of this report, project-level information from the inventory is being shared through [Open Maps](#), a part of [Canada’s new Open Government portal](#) that is intended as a one-stop access to the Canadian Federal Government’s geospatial information. For more information on Open Maps or other federal government open data initiatives, please contact open-ouvert@tbs-sct.gc.ca.

SCOPE AND METHODOLOGY

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

A capital expenditure threshold of \$50 million is used for energy and mining sector projects, while a threshold of \$20 million is used for electricity and forest sector projects. Relatively smaller projects and investments, while recognized as important contributions to overall investment, are not included due to the limited availability of data. All projects must have publicly available information on capital costs in order to be included.

A variety of information sources are used to update the inventory, including databases in Natural Resources Canada, other federal, provincial and territorial government departments and agencies, company releases and publicly accessible websites. All information is available in the public domain.

The inventory includes information relating to the value, timing and geographical location of projects. Projects included in the inventory are also divided according to their stage of development (Figure 1):

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

Figure 1 – Project Stages Included in the 2016 Major Projects Inventory

In order to highlight some of the key trends between annual updates, the inventory includes information on which projects have been added, completed, suspended, cancelled or removed:

- **Added projects:** projects that have been announced since the previous update or which have come within scope for inclusion based on new availability of data.
- **Completed projects:** projects where the construction phase has been completed or production has started.
- **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.
- **Removed projects:** projects that are no longer within the inventory's scope due to newly available information (e.g., they no longer meet the investment value threshold), are duplicate entries or, while not officially suspended or cancelled, are considered too uncertain to include in the inventory.

NATIONAL-LEVEL TRENDS AND ANALYSIS

As of the June 2016 update, a total of 421 projects are included in the inventory, representing \$691 billion in total capital costs. This total is down from 487 projects in 2015, valued at \$711 billion, and from 548 projects in 2014, valued at \$676 billion. During the 2016 update, 85 projects were added (\$63 billion) and 56 projects were completed and started production (\$25 billion). While completed projects are removed from inventory totals, they represent tangible benefits to the Canadian economy because of their production and operational workforces. Notably, 62 projects were suspended or cancelled (\$78 billion), which is an increase over the 51 projects suspended or cancelled (\$48 billion) during the 2015 update.

Total projects and changes between 2014 and 2016

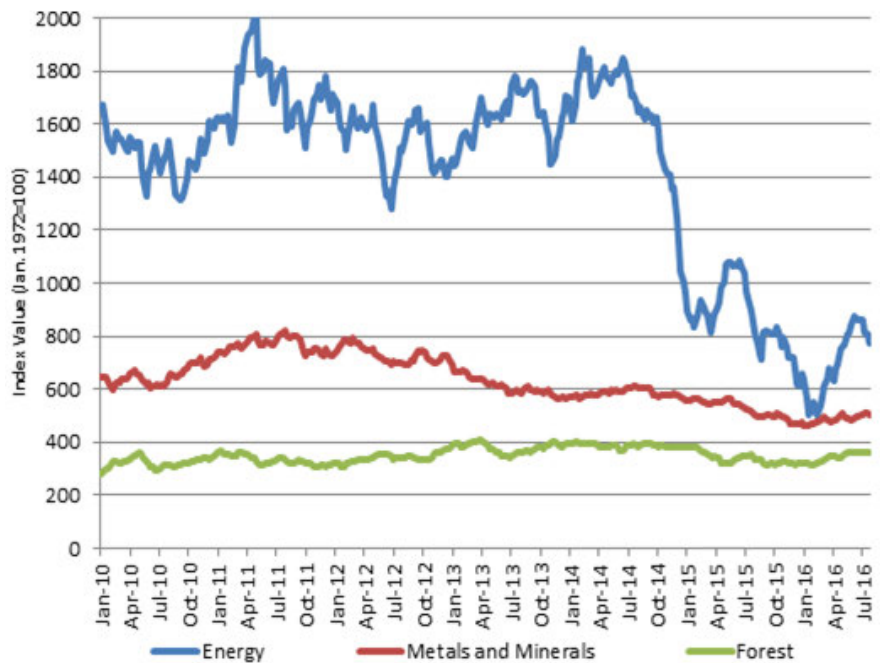
| Changes from previous year | 2014 | 2015 | 2016 |
|--|------------------------------|------------------------------|------------------------------|
| Added | - | 109 projects (\$160B) | 85 projects (\$63B) |
| Completed | - | 88 projects (\$53B) | 56 projects (\$25B) |
| Suspended/Cancelled | - | 51 projects (\$48B) | 62 projects (\$78B) |
| Removed | - | 31 projects (\$28B) | 33 projects (\$20B) |
| Total Projects Included¹ | 548 projects (\$676B) | 487 projects (\$711B) | 421 projects (\$691B) |

¹ Revisions to cost estimates of existing projects also influence changes in total capital costs between years

Changes in the number, value and status of projects between updates are the result of a wide range of economic factors, including recent trends in commodity prices.

- As shown in Figure 2, energy prices have dramatically fallen since the supply-driven rout in crude oil prices began in mid-2014. Factors behind the price decline include unanticipated increases in unconventional oil production (e.g., shale in the U.S.) and a resulting policy shift by Organization of the Petroleum Exporting Countries (OPEC) producers to defend their market share of exports. After reaching a trough in February, 2016, crude oil prices have recovered somewhat as declines in non-OPEC production have brought the market closer to being balanced. However, persistently high crude inventory levels have limited this upward trend.
- Regarding natural gas, Asian demand growth has slowed at a time when new projects are coming online worldwide. This has led to what many analysts consider will be an oversupplied market until the early 2020s. As a result, some stakeholders are reviewing their investment decisions, including for some liquefied natural gas (LNG) terminals. Notwithstanding this difficult investment environment, Canada remains well placed to meet additional demand in the early 2020s, and projects are moving forward.
- Prices for minerals and metals have continued a more gradual decline since 2011, reflecting an end of the 2000–2010 commodity super-cycle, which was driven by strong growth in global economic activity, particularly in China. Looking ahead, while growth in China’s demand for industrial commodities is forecast to slow over the next 10 years, demand is still expected to grow substantially in volume. Accordingly, China and other emerging markets will remain an important source of demand for Canadian natural resources in the future.
- Prices for lumber, pulp and other wood products have remained relatively stable over the past few years, in part due to steady growth in the U.S. housing market and a weaker Canadian dollar. However, uncertainty regarding the global economy remains a downside risk for future demand and investment into major projects.

Figure 2 – Commodity Price Indexes, 2010 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.

Lower commodity prices have led companies to announce cuts in their capital spending plans and have impacted investment into Canada’s natural resource sectors. According to Statistics Canada’s most recent Capital and Repairs Expenditures Survey, capital expenditure intentions for 2016 in the natural resource sectors are expected to be 12 percent below preliminary estimates for 2015. This compares with forecasts

from the Bank of Canada's April 2016 Monetary Policy Report that suggest that the level of investment in the oil and gas sector in 2016 is likely to decline to about 60 percent below its 2014 level.

Energy Projects

As of the 2016 update, 306 energy projects are included in the inventory, valued at roughly \$598 billion. This compares with 343 projects at \$570 billion in 2015 and with 382 projects at \$509 billion in 2014. In 2015, the increase was due to the addition of several announced LNG projects, valued at approximately \$79 billion. In 2016, the increase in total value was largely due to the addition of the ESE Synthetic Crude Pipeline and Pacific Future Energy Oil refinery project in B.C. and large upward revisions to the capital cost estimates for several projects, including Ontario's Darlington and Bruce nuclear refurbishment projects.

Energy projects in the inventory cover a wide array of sub-sectors, including those in oil and gas (e.g., oil sands, off-shore, LNG, export terminals, storage facilities, pipelines) and electricity generation and transmission (e.g., nuclear, renewables, power lines). Oil- and gas-related projects constitute roughly 81 percent of the total value of energy projects in the 2016 inventory, while electricity generation and transmission projects account for roughly 18 percent of the total.

| | 2014 | 2015 | 2016 |
|-----------------------|-----------------------|-----------------------|-----------------------|
| Total energy projects | 382 projects (\$509B) | 343 projects (\$570B) | 306 projects (\$598B) |
| Oil and Gas | 150 projects (\$354B) | 155 projects (\$456B) | 147 projects (\$485B) |
| Electricity | 223 projects (\$154B) | 184 projects (\$113B) | 155 projects (\$108B) |
| Other ¹ | 9 projects (\$2B) | 4 projects (\$1B) | 4 projects (\$5B) |

¹ Other primarily includes biofuel production activities

Oil Sands

The number and value of oil sands-related projects (e.g., in situ, upgrading and refining) included in the major projects inventory have decreased since 2014. As of the June 2016 update, there were 47 oil sands-related projects, representing an estimated \$148 billion in capital expenditure. This compares with 59 projects worth \$165 billion in 2015 and with 64 projects worth \$182 billion in 2014. Of the net decline of 15 projects between 2015 and 2016, three projects were completed (\$11 billion) while nine were either cancelled or suspended (\$10 billion). Of note, additional project phases were added to existing projects as per newly available data. This inclusion partly explains a net \$10-billion upward revision to the total value of existing oil sands projects in 2016.

| | 2014 | 2015 | 2016 |
|---------------------------------|----------------------|----------------------|----------------------|
| Oil Sands projects ¹ | 64 projects (\$182B) | 62 projects (\$165B) | 47 projects (\$148B) |

¹ Excludes pipeline projects

Natural Gas

As of the June 2016 update, the inventory includes 68 natural gas-related projects (e.g., natural gas pipelines, export facilities and gas-fired generators) across Canada, representing an estimated \$217 billion in capital costs. The relatively steady value of natural gas-related projects between 2015 and 2016 occurs as the cancellation of Repsol's Saint John LNG project and the suspension of the Douglas Channel LNG project were

billion, largely due to the announcement of several LNG projects, which accounted for an additional \$79 billion.

Because the inventory only includes projects that have publicly available information on estimated capital costs, only 11 of the total 20 proposed LNG export facilities along B.C.'s coast are included, together valued at approximately \$143 billion. Despite this, most analysts expect only two to three LNG export facilities will be built in Canada over the medium term.

| | 2014 | 2015 | 2016 |
|----------------------|----------------------|----------------------|----------------------|
| Natural gas projects | 51 projects (\$113B) | 65 projects (\$215B) | 68 projects (\$217B) |

Mining Projects

The inventory indicates that current and potential investment into major mining-related projects (e.g., mine constructions, re-developments, expansions and processing facilities) has contracted since 2014. As of the June 2016 update, 97 projects are planned or in construction across Canada, representing about \$90 billion in estimated capital cost expenditures. This compares with 124 projects worth \$140 billion in 2015 and with 150 projects worth \$166 billion in 2014. Of the net decline of 27 projects between 2015 and 2016, six projects worth \$1 billion were added to the inventory, four projects worth \$2 billion were completed, and 23 projects worth approximately \$52 billion were either suspended or cancelled.

Of the 2016 inventory's mining-related projects, B.C. accounts for 26 percent of the total value, while Quebec and Saskatchewan both account for 21 percent. The remaining share of total value is spread across all jurisdictions, with the exception of Prince Edward Island, which has no mining projects planned or in construction.

| | 2014 | 2015 | 2016 |
|-------------------------------|-----------------------|-----------------------|---------------------|
| Total mining-related projects | 150 projects (\$166B) | 124 projects (\$140B) | 97 projects (\$90B) |
| Mines – Metals | 105 projects (\$116B) | 85 projects (\$91B) | 61 projects (\$49B) |
| Mines – Non-metals | 20 projects (\$29B) | 20 projects (\$29B) | 20 projects (\$24B) |
| Mines – Coal | 16 projects (\$9B) | 12 projects (\$7B) | 9 projects (\$5B) |
| Other ¹ | 9 projects (\$12B) | 7 projects (\$13B) | 7 projects (\$12B) |

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

Forest Projects

The 2016 inventory indicates that the number of forest-related major projects (e.g., lumber, pulp and paper, and biofuel production) has remained relatively steady since 2014. Meanwhile, the total value of projects has increased, particularly in 2016 with the announcement of a next-generation biorefinery facility in La Tuque, Quebec. As of the June 2016 update, there are 18 major forest projects across Canada, representing about \$2.3 billion in estimated capital cost expenditures. This compares with 20 projects worth \$1.7 billion in 2015 and with 20 projects worth \$1.6 billion in 2014.

With five projects, Quebec accounts for 41 percent of total forest-related capital cost expenditures. The remaining projects and capital expenditures are spread among New Brunswick, Saskatchewan, Ontario, Alberta, and B.C.

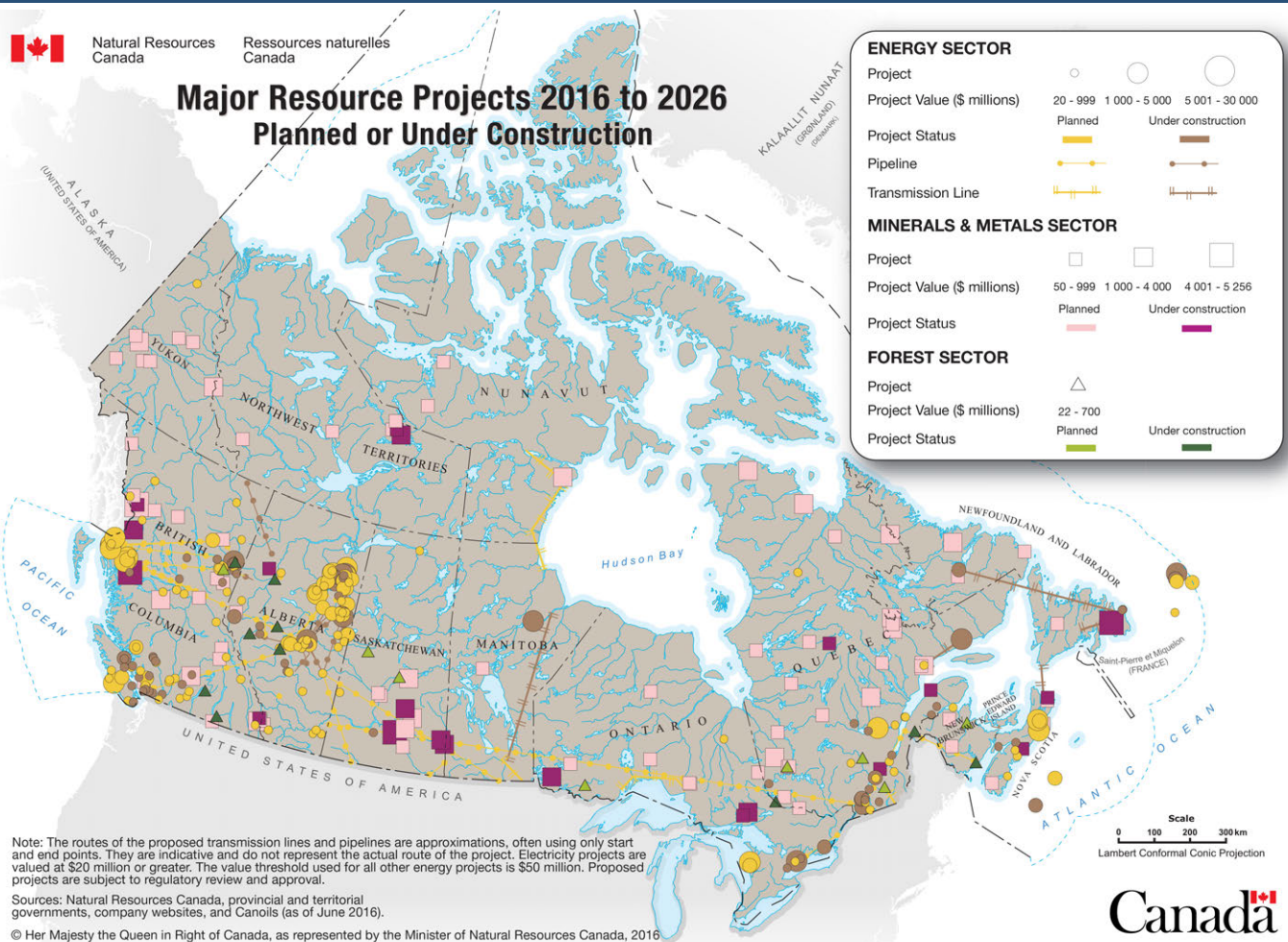
| | 2014 | 2015 | 2016 |
|-------------------------------|----------------------|----------------------|----------------------|
| Total forest-related projects | 20 projects (\$1.6B) | 20 projects (\$1.7B) | 18 projects (\$2.3B) |

MAJOR NATURAL RESOURCES PROJECTS

Planned and Under Construction, 2016–2026



CANADA



1 - Highlights

- As of June 2016, 421 projects are currently under construction or planned in Canada over the next 10 years, representing \$691 billion in value.
- In total, the 2016 inventory has 66 fewer projects than last year:
 - 56 projects valued at \$25 billion have been completed and are in production;
 - 95 have been suspended, cancelled or removed; and
 - 85 projects have been added.
- The total value of major projects in the inventory decreased from \$711 billion in 2015 to \$691 billion in 2016. The decrease in value was largely offset by the addition of the ESE Synthetic Crude Pipeline, the Pacific Future Energy Oil Refinery and the Line 3 Replacement Project, as well as by significant capital cost adjustments, including those to the Darlington and Bruce Nuclear Refurbishment projects.
- In terms of value, energy projects account for 86.6 percent of total major projects. Comparatively, major projects in the minerals and metals and forest sectors account for 13.1 percent and 0.3 percent, respectively.

MAJOR NATURAL RESOURCES PROJECTS

Planned and Under Construction, 2016–2026



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|------------|--------------|---------------------|-------------|-----------|------------|------------|--------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 188 | \$442 | 76 | \$61 | 8 | \$1 | 272 | \$505 |
| Announced | 44 | \$85 | 14 | \$7 | 3 | \$0.8 | 61 | \$92 |
| Under Review | 64 | \$206 | 35 | \$30 | 1 | \$0.1 | 100 | \$236 |
| Approval Received | 40 | \$118 | 12 | \$13 | 0 | \$0 | 52 | \$131 |
| Planned – Status Unknown | 40 | \$33 | 15 | \$11 | 4 | \$0.6 | 59 | \$45 |
| Under Construction | 118 | \$156 | 21 | \$29 | 10 | \$0.9 | 149 | \$186 |
| Total | 306 | \$598 | 97 | \$90 | 18 | \$2 | 421 | \$691 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 - Projects by Status

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|------------|--------------|------------|--------------|------------|--------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 390 | \$500 | 342 | \$534 | 272 | \$505 |
| Under Construction | 158 | \$176 | 145 | \$178 | 149 | \$186 |
| Total | 548 | \$676 | 487 | \$711 | 421 | \$691 |

Source: Major Projects Inventory, as of June 2016

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 | 101 | \$247 | 22 | \$24 | 4 | \$0.2 | 127 | \$271 |
| Alberta | 111 | \$187 | 3 | \$0.8 | 4 | \$0.2 | 118 | \$187 |
| Saskatchewan | 2 | \$1 | 10 | \$19 | 2 | \$0.5 | 14 | \$20 |
| Manitoba | 3 | \$10 | 1 | \$0.6 | 0 | \$0 | 4 | \$11 |
| Ontario | 17 | \$38 | 9 | \$5 | 1 | \$0.1 | 27 | \$43 |
| Quebec | 31 | \$26 | 21 | \$19 | 5 | \$0.9 | 57 | \$46 |
| New Brunswick | 4 | \$0.7 | 2 | \$0.8 | 2 | \$0.5 | 8 | \$2 |
| Nova Scotia | 11 | \$21 | 5 | \$2 | 0 | \$0 | 16 | \$22 |
| Prince Edward Island | 1 | \$0.14 | 0 | \$0 | 0 | \$0 | 1 | \$0.14 |
| Newfoundland and Labrador | 14 | \$29 | 7 | \$8 | 0 | \$0 | 21 | \$37 |
| Yukon | 1 | \$0.1 | 8 | \$6 | 0 | \$0 | 9 | \$7 |
| Northwest Territories | 0 | \$0 | 6 | \$3 | 0 | \$0 | 6 | \$3 |
| Nunavut | 0 | \$0 | 3 | \$2 | 0 | \$0 | 3 | \$2 |
| Multi-jurisdictional | 10 | \$39 | 0 | \$0 | 0 | \$0 | 10 | \$39 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

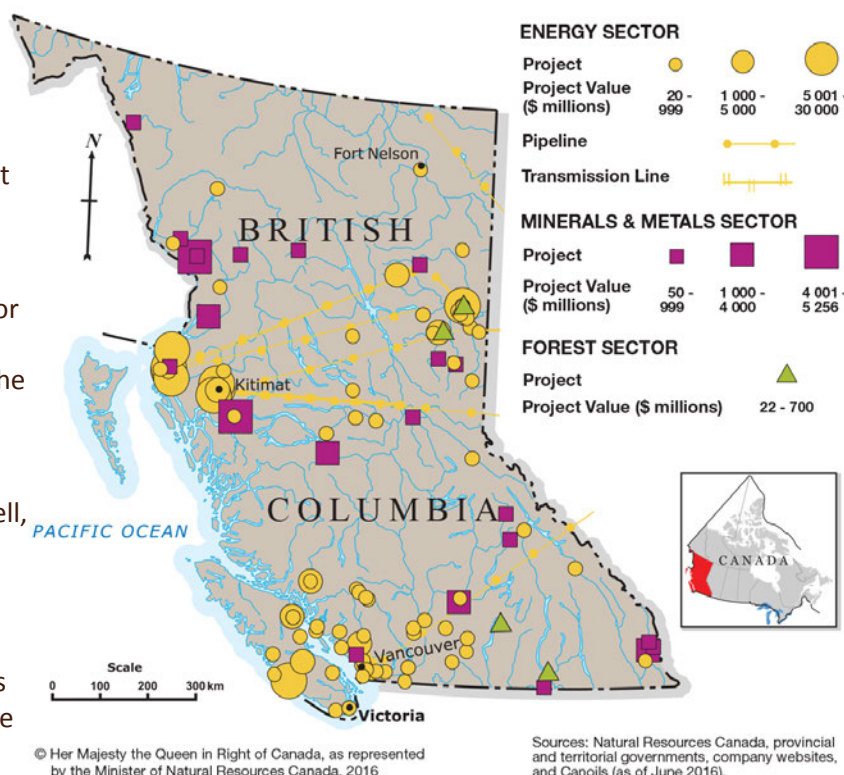
Planned and Under Construction, 2016–2026

BRITISH COLUMBIA



1 - Highlights

- There are 127 projects currently under construction in B.C. or planned over the next 10 years, representing \$271 billion in investment.
- In terms of value, energy projects account for close to 91 percent of major projects investment in B.C, as well as 80 percent of the total number of projects.
- The 2016 inventory includes the addition of 29 new projects, valued at \$35 billion. As well, 24 projects valued at \$4 billion have been completed since 2015 and have started production.
- Since 2014, B.C. had a net loss of 32 projects over the past year but experienced a positive change in value of \$23 billion.



2 - Summary Table

| Status | Energy | | Metals | | Forest | | Total | |
|--------------------------|------------|--------------|-----------|-------------|----------|--------------|------------|--------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 66 | \$233 | 17 | \$16 | 1 | \$0.1 | 84 | \$249 |
| Announced | 17 | \$57 | 0 | \$0 | 0 | \$0 | 17 | \$57 |
| Under Review | 24 | \$120 | 12 | \$9 | 0 | \$0 | 36 | \$129 |
| Approval Received | 12 | \$52 | 2 | \$5 | 0 | \$0 | 14 | \$57 |
| Planned – Status unknown | 13 | \$5 | 3 | \$2 | 1 | \$0.1 | 17 | \$6 |
| Under Construction | 35 | \$15 | 5 | \$8 | 3 | \$0.1 | 43 | \$22 |
| Total | 101 | \$247 | 22 | \$24 | 4 | \$0.2 | 127 | \$271 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 - 2014-16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|------------|--------------|------------|--------------|------------|--------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 137 | \$139 | 113 | \$234 | 84 | \$249 |
| Under Construction | 52 | \$21 | 46 | \$14 | 43 | \$22 |
| Total | 189 | \$159 | 159 | \$248 | 127 | \$271 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

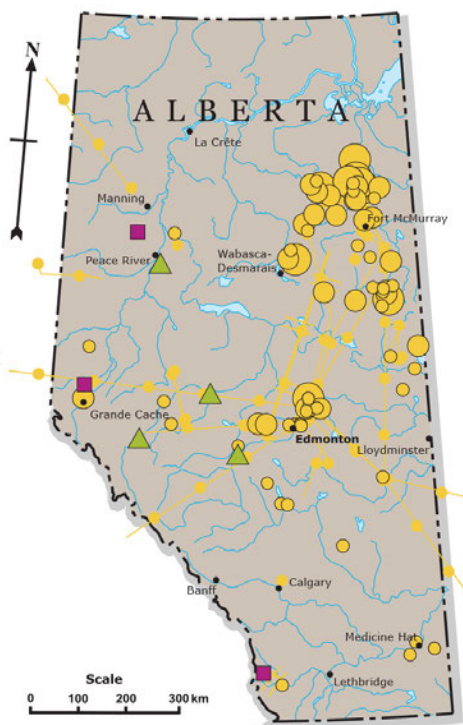
MAJOR NATURAL RESOURCES PROJECTS

Planned and Under Construction, 2016–2026



1 - Highlights

- There are 118 projects currently under construction in Alberta or planned over the next 10 years, representing \$187 billion in investment.
- In terms of value, energy projects account for 99 percent of major projects investment in Alberta and with 111 projects, 94 percent of the number of total projects.
- The 2016 inventory includes the addition of 24 new projects, valued at \$14 billion. As well, Alberta completed 15 projects this year, with total value decreasing by \$17 billion.
- Since 2014, the net number of projects in Alberta has decreased by 23, with the total value of projects decreasing by \$34 billion.



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ENERGY SECTOR

Project
Project Value (\$ millions)

| | | |
|----------|---------------|----------------|
| 20 - 999 | 1 000 - 5 000 | 5 001 - 30 000 |
|----------|---------------|----------------|

Pipeline

Transmission Line

MINERALS & METALS SECTOR

Project
Project Value (\$ millions)

| | | |
|----------|---------------|---------------|
| 50 - 999 | 1 000 - 4 000 | 4 001 - 5 256 |
|----------|---------------|---------------|

FOREST SECTOR

Project
Project Value (\$ millions)

| |
|----------|
| 22 - 700 |
|----------|



Sources: Natural Resources Canada, provincial and territorial governments, company websites, and Canolis (as of June 2016).

2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|------------|--------------|---------------------|--------------|----------|--------------|------------|--------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 71 | \$113 | 2 | \$0.5 | 0 | \$0 | 73 | \$114 |
| Announced | 21 | \$19 | 0 | \$0 | 0 | \$0 | 21 | \$19 |
| Under Review | 21 | \$44 | 2 | \$0.5 | 0 | \$0 | 23 | \$44 |
| Approval Received | 23 | \$50 | 0 | \$0 | 0 | \$0 | 23 | \$50 |
| Planned – Status unknown | 6 | \$0.6 | 0 | \$0 | 0 | \$0 | 6 | \$0.6 |
| Under Construction | 40 | \$73 | 1 | \$0.3 | 4 | \$0.2 | 45 | \$74 |
| Total | 111 | \$187 | 3 | \$0.8 | 4 | \$0.2 | 118 | \$187 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 - 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|------------|--------------|------------|--------------|------------|--------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 96 | \$142 | 97 | \$136 | 73 | \$114 |
| Under Construction | 46 | \$79 | 36 | \$68 | 45 | \$74 |
| Total | 142 | \$221 | 133 | \$204 | 118 | \$187 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

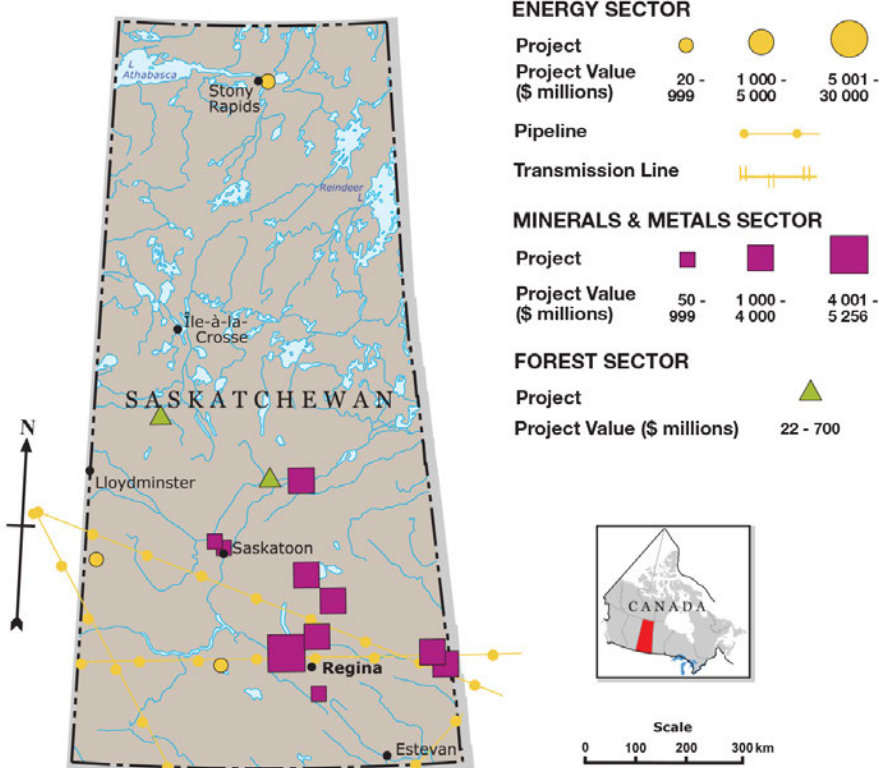
Planned and Under Construction, 2016–2026



SASKATCHEWAN

1 - Highlights

- There are 14 projects currently under construction in Saskatchewan or planned over the next 10 years, representing \$20 billion in investment.
- In terms of value, mining projects account for 93 percent of major projects investment in Saskatchewan, and 71 percent of the total number of projects.
- One project valued at \$500 million has been completed since 2015 and has started production.
- Since 2014, the net number of projects in Saskatchewan has fallen by four, with the total value of projects decreasing by \$7 billion.



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Sources: Natural Resources Canada, provincial and territorial governments, company websites, and Canolis (as of June 2016).

2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|------------|---------------------|-------------|----------|--------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 1 | \$0.6 | 6 | \$8 | 2 | \$0.5 | 9 | \$9 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 1 | \$0.6 | 3 | \$3 | 0 | \$0 | 3 | \$3 |
| Approval Received | 0 | \$0 | 2 | \$2 | 0 | \$0 | 3 | \$3 |
| Planned – Status unknown | 0 | \$0 | 1 | \$3 | 2 | \$0.5 | 3 | \$3 |
| Under Construction | 1 | \$0.4 | 4 | \$11 | 0 | \$0 | 5 | \$11 |
| Total | 2 | \$1 | 10 | \$19 | 2 | \$0.5 | 14 | \$20 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 11 | \$14 | 11 | \$13 | 9 | \$9 |
| Under Construction | 7 | \$13 | 7 | \$14 | 5 | \$11 |
| Total | 18 | \$27 | 18 | \$27 | 14 | \$20 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

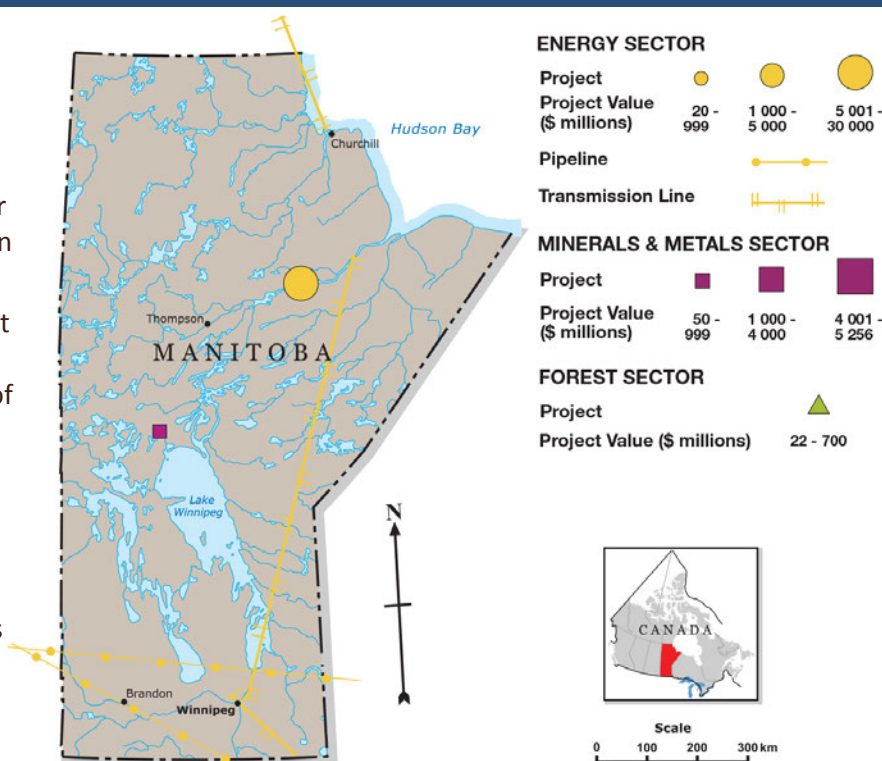
Planned and Under Construction, 2016–2026



MANITOBA

1 - Highlights

- There are four projects currently under construction in Manitoba or planned over the next 10 years, representing \$11 billion in investment.
- In terms of value, energy projects account for 94 percent of major projects investment in Manitoba and 75 percent of the total number of projects.
- The 2016 inventory includes the addition of one project, valued at \$350 million. As well, one project has been completed, valued at \$400 million.
- Since 2014, the number of major projects planned or under construction has dropped by five, while total value of projects has dropped by \$12 billion.



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Sources: Natural Resources Canada, provincial and territorial governments, company websites, and Canolis (as of June 2016).

2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|-------------|---------------------|--------------|----------|------------|----------|-------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 1 | \$0.4 | 1 | \$0.6 | 0 | \$0 | 2 | \$1 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 1 | \$0.4 | 0 | \$0 | 0 | \$0 | 1 | \$0.4 |
| Approval Received | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Planned – Status unknown | 0 | \$0 | 1 | \$0.6 | 0 | \$0 | 1 | \$0.6 |
| Under Construction | 2 | \$10 | 0 | \$0 | 0 | \$0 | 2 | \$10 |
| Total | 3 | \$10 | 1 | \$0.6 | 0 | \$0 | 4 | \$11 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|----------|-------------|----------|-------------|----------|-------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 6 | \$22 | 3 | \$1 | 2 | \$1 |
| Under Construction | 3 | \$1 | 3 | \$10 | 2 | \$10 |
| Total | 9 | \$23 | 6 | \$11 | 4 | \$11 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

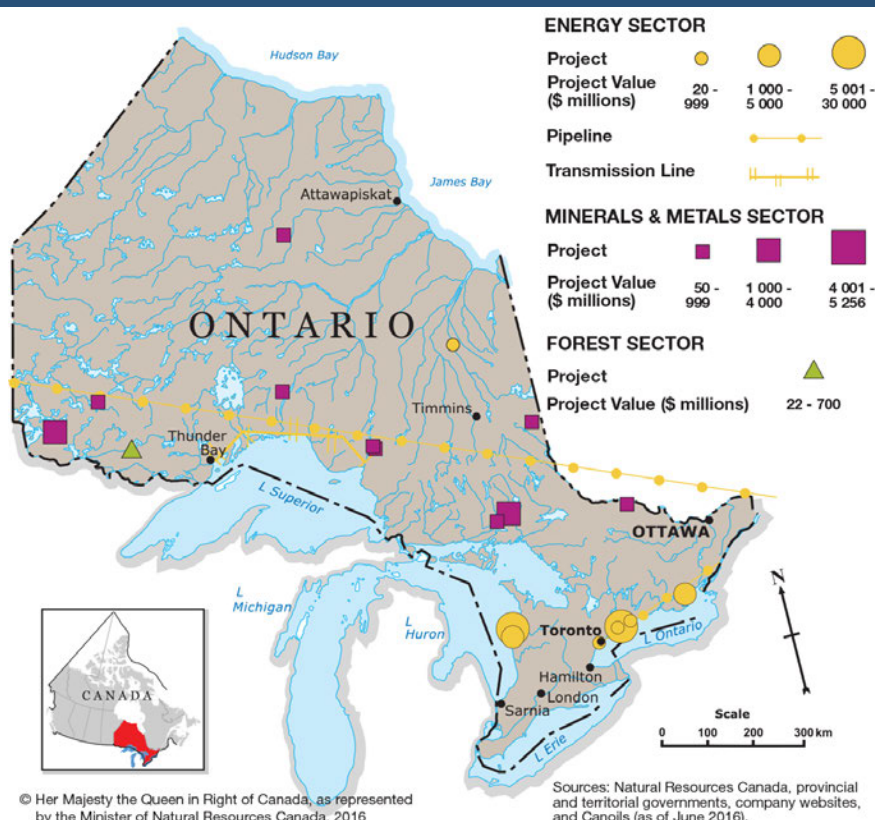
MAJOR NATURAL RESOURCES PROJECTS

Planned and Under Construction, 2016–2026



1 - Highlights

- There are 27 projects currently under construction in Ontario or planned over the next 10 years, representing \$43 billion in investment.
- In terms of value, energy projects account for close to 88 percent of major projects investment in Ontario, and approximately 63 percent of the total number of projects.
- Five new projects valued at \$1.8 billion have been added since 2015, and four projects valued at \$500 million have been completed and have started production.
- Since 2014, there has been a decline of 24 major projects in Ontario and an \$11-billion decline in total value.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|-----------|-------------|---------------------|------------|----------|--------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 12 | \$22 | 6 | \$2 | 1 | \$0.1 | 19 | \$24 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 2 | \$3 | 3 | \$2 | 0 | \$0.0 | 5 | \$4 |
| Approval Received | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Planned – Status unknown | 10 | \$19 | 3 | \$0.4 | 1 | \$0.1 | 14 | \$20 |
| Under Construction | 5 | \$16 | 3 | \$3 | 0 | \$0 | 8 | \$19 |
| Total | 17 | \$38 | 9 | \$5 | 1 | \$0.1 | 27 | \$43 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 - 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 41 | \$43 | 20 | \$15 | 19 | \$24 |
| Under Construction | 10 | \$11 | 14 | \$24 | 8 | \$19 |
| Total | 51 | \$54 | 34 | \$39 | 27 | \$43 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

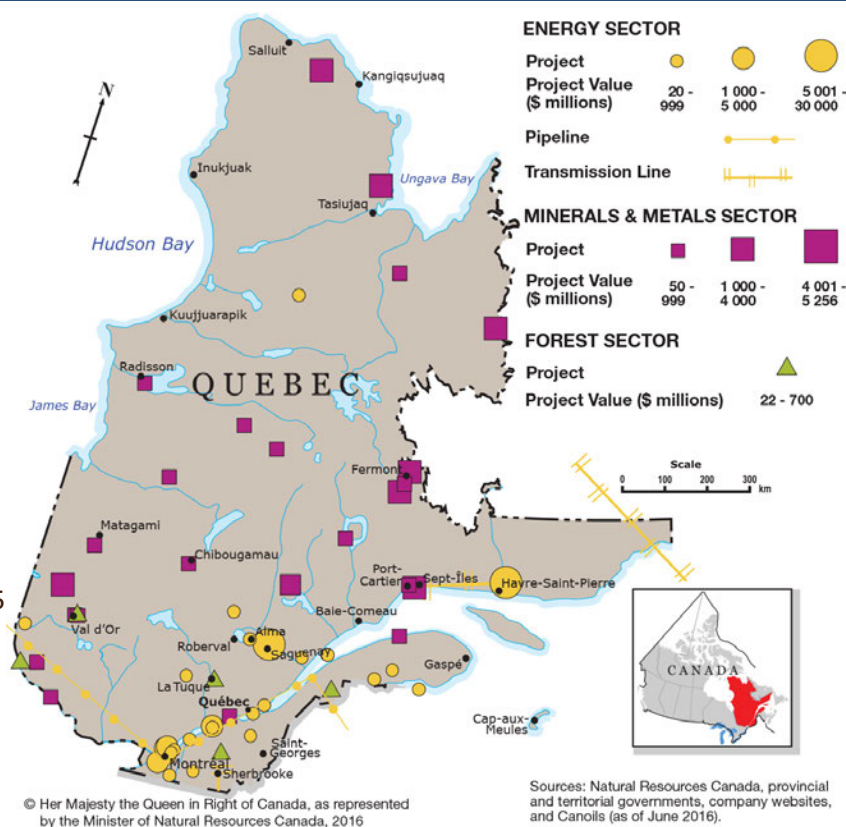
MAJOR NATURAL RESOURCES PROJECTS

Planned and Under Construction, 2016–2026



1 - Highlights

- There are 57 projects currently under construction in Quebec or planned over the next 10 years, representing \$46 billion in investment.
- In terms of value, energy projects account for close to 57 percent of major projects investment in Quebec and approximately 54 percent of the total number of projects.
- The 2016 inventory includes the addition of 13 new projects, valued at \$2.5 billion. Comparatively, seven projects valued at \$1.2 billion have been completed since 2015 and have started production.
- Since 2014, Quebec's net number of projects increased by one, while the total value of projects has decreased by \$23 billion.



2 - Summary Table

| Status | Energy | | Minerals – Metals | | Forest | | Total | |
|--------------------------|-----------|-------------|-------------------|-------------|----------|--------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 14 | \$11 | 18 | \$17 | 3 | \$0.8 | 35 | \$29 |
| Announced | 2 | \$7 | 5 | \$1 | 3 | \$0.8 | 10 | \$9 |
| Under Review | 7 | \$1 | 8 | \$11 | 0 | \$0 | 15 | \$12 |
| Approval Received | 1 | \$0.8 | 3 | \$2 | 0 | \$0 | 4 | \$3 |
| Planned – Status unknown | 4 | \$1 | 2 | \$4 | 0 | \$0 | 6 | \$5 |
| Under Construction | 17 | \$15 | 3 | \$1 | 2 | \$0.1 | 22 | \$17 |
| Total | 31 | \$26 | 21 | \$19 | 5 | \$0.9 | 57 | \$46 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 36 | \$54 | 41 | \$53 | 35 | \$28 |
| Under Construction | 20 | \$14 | 21 | \$15 | 22 | \$18 |
| Total | 56 | \$69 | 62 | \$67 | 57 | \$46 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

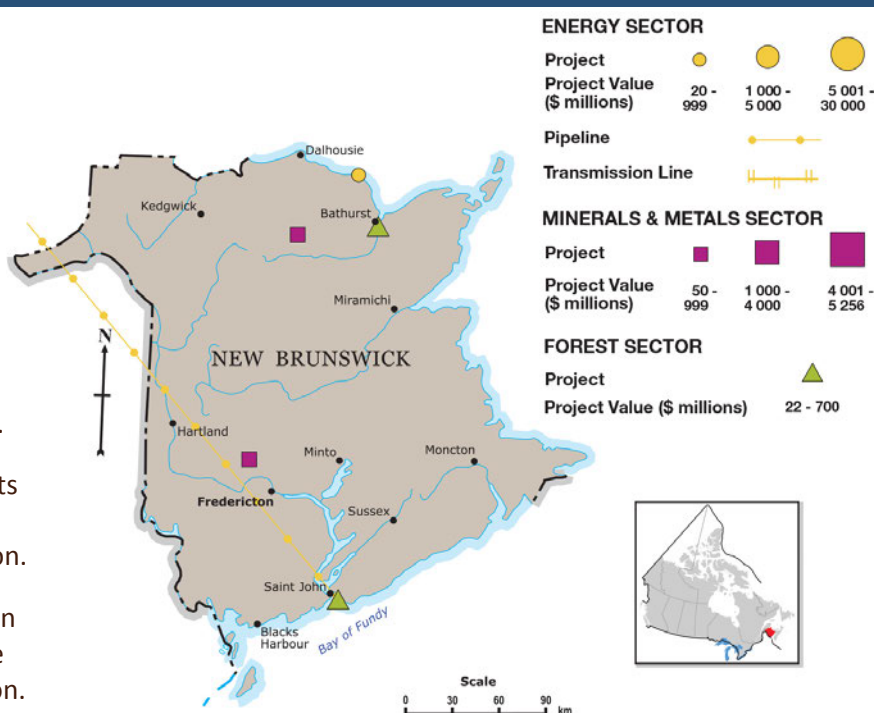
Planned and Under Construction, 2016–2026



NEW BRUNSWICK

1 - Highlights

- There are eight projects currently under construction in New Brunswick or planned over the next 10 years, representing \$2 billion in investment.
- In terms of value, the minerals and mining sector accounts for 42 percent of major projects investment in New Brunswick and 25 percent of the total number of projects.
- New Brunswick has added two new projects valued at \$110 million since 2015 and has completed one project valued at \$23 million.
- Since 2014, the number of major projects in New Brunswick dropped by three, with the total value of projects declining by \$5 billion.



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Sources: Natural Resources Canada, provincial and territorial governments, company websites, and Canolis (as of June 2016).

2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|--------------|---------------------|--------------|----------|--------------|----------|------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 3 | \$0.5 | 2 | \$0.8 | 0 | \$0 | 6 | \$1 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 2 | \$0.3 | 1 | \$0.6 | 1 | \$0.1 | 4 | \$1 |
| Approval Received | 1 | \$0.2 | 0 | \$0 | 0 | \$0 | 1 | \$0.2 |
| Planned – Status unknown | 0 | \$0 | 1 | \$0.3 | 0 | \$0 | 1 | \$0.3 |
| Under Construction | 1 | \$0.2 | 0 | \$0 | 1 | \$0.4 | 2 | \$0.6 |
| Total | 4 | \$0.7 | 2 | \$0.8 | 2 | \$0.5 | 8 | \$2 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 10 | \$5 | 7 | \$4 | 6 | \$1 |
| Under Construction | 1 | \$2 | 2 | \$0.2 | 2 | \$0.6 |
| Total | 11 | \$7 | 9 | \$4 | 8 | \$2 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

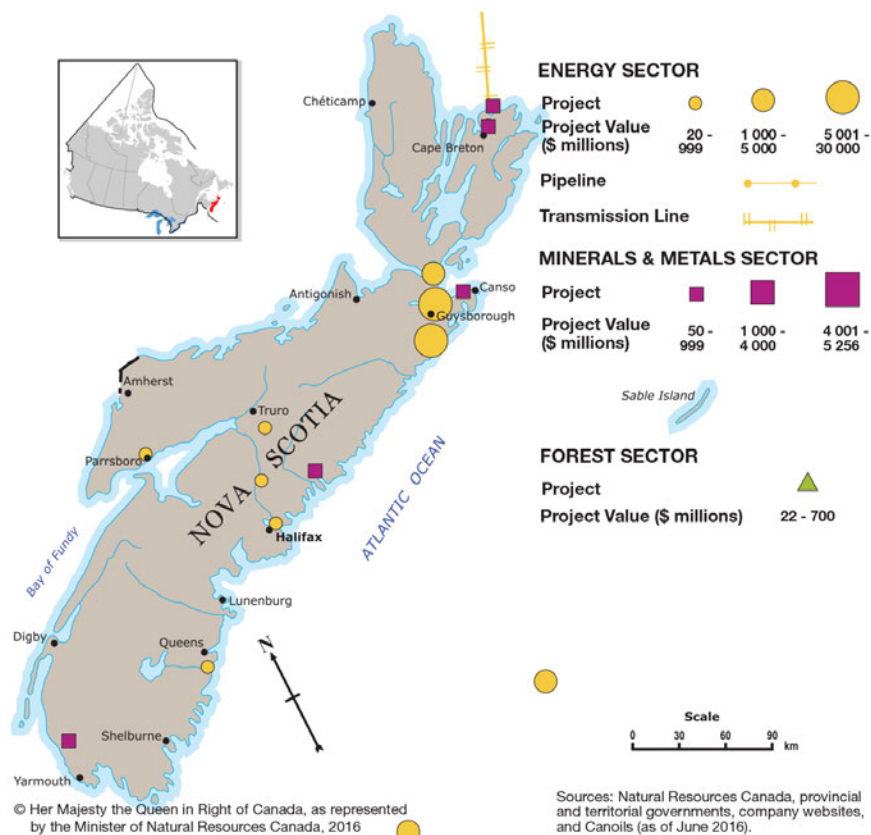
Planned and Under Construction, 2016–2026



NOVA SCOTIA

1 - Highlights

- There are 16 projects currently under construction in Nova Scotia or planned over the next 10 years, representing \$22 billion in investment.
- In terms of value, energy projects account for 92 percent of major projects investment in Nova Scotia and 69 percent of the total number of projects.
- Since 2014, Nova Scotia had a net loss of one major project but an increase in total value of \$3 billion.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|-----------|-------------|---------------------|------------|----------|------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 7 | \$19 | 3 | \$1 | 0 | \$0 | 10 | \$20 |
| Announced | 2 | \$1 | 1 | \$0.2 | 0 | \$0 | 3 | \$1 |
| Under Review | 1 | \$3 | 0 | \$0 | 0 | \$0 | 1 | \$3 |
| Approval Received | 2 | \$15 | 1 | \$0.1 | 0 | \$0 | 3 | \$15 |
| Planned – Status unknown | 2 | \$0.1 | 1 | \$0.8 | 0 | \$0 | 3 | \$0.9 |
| Under Construction | 4 | \$2 | 2 | \$0.7 | 0 | \$0 | 6 | \$2 |
| Total | 11 | \$21 | 5 | \$2 | 0 | \$0 | 16 | \$22 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 13 | \$17 | 14 | \$24 | 10 | \$20 |
| Under Construction | 4 | \$2 | 4 | \$2 | 6 | \$2 |
| Total | 17 | \$19 | 18 | \$25 | 16 | \$22 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

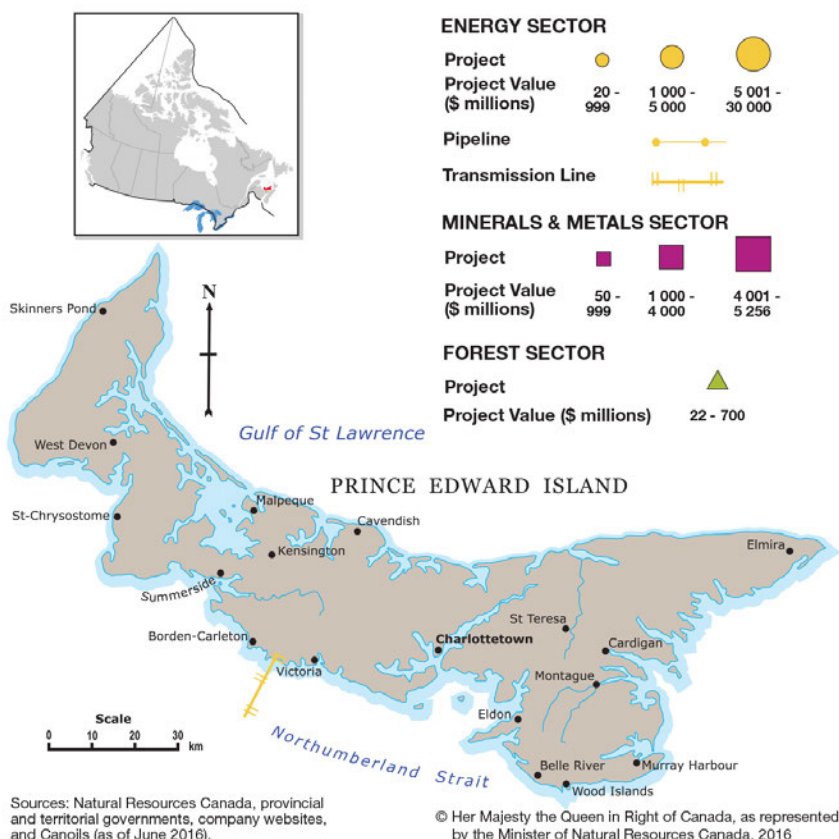
Planned and Under Construction, 2016–2026



PRINCE EDWARD ISLAND

1 - Highlights

- There is one major project currently under construction in Prince Edward Island, representing \$140 million in investment.
- Since 2014, the inventory has included only one energy project in Prince Edward Island, the Electricity Transmission Cable between the province and New Brunswick, whose value was revised down between 2014 and 2015 (-\$10 million) and has remained constant in 2016.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|---------------|---------------------|------------|----------|------------|----------|---------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Approval Received | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Planned – Status unknown | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Construction | 1 | \$0.14 | 0 | \$0 | 0 | \$0 | 1 | \$0.14 |
| Total | 1 | \$0.14 | 0 | \$0 | 0 | \$0 | 1 | \$0.14 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 - 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|----------|---------------|----------|---------------|----------|---------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 1 | \$0.15 | 1 | \$0.14 | 0 | \$0 |
| Under Construction | 0 | \$0 | 0 | \$0 | 1 | \$0.14 |
| Total | 1 | \$0.15 | 1 | \$0.14 | 1 | \$0.14 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

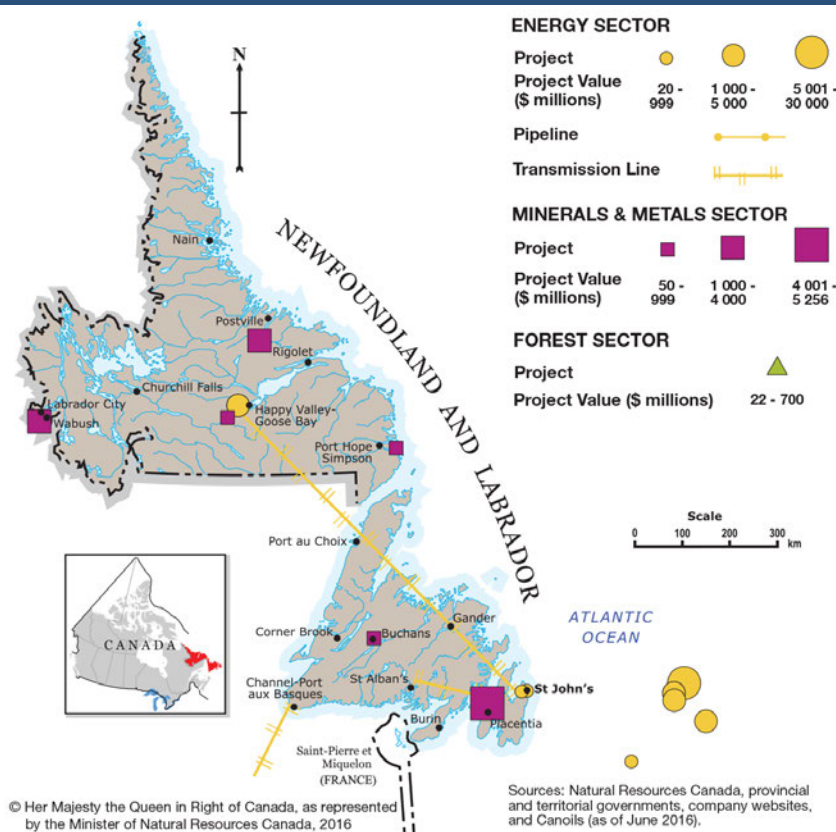
Planned and Under Construction, 2016–2026



NEWFOUNDLAND & LABRADOR

1 - Highlights

- There are 21 projects currently under construction in Newfoundland and Labrador or planned over the next 10 years, representing \$37 billion in investment.
- In terms of value, energy projects account for 78 percent of major projects investment in Newfoundland and Labrador and 67 percent of the number of projects.
- The 2016 inventory includes the addition of five new projects, valued at \$2.4 billion. As well, two projects valued at \$1 billion have been completed since 2015 and have started production.
- Since 2014, the total number of major projects has dropped by three, with a decline in value of \$13 billion.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|-----------|-------------|---------------------|------------|----------|------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 4 | \$6 | 6 | \$4 | 0 | \$0 | 10 | \$10 |
| Announced | 0 | \$0 | 3 | \$2 | 0 | \$0 | 3 | \$2 |
| Under Review | 0 | \$0 | 1 | \$0.3 | 0 | \$0 | 1 | \$0.3 |
| Approval Received | 0 | \$0 | 1 | \$1 | 0 | \$0 | 1 | \$1 |
| Planned – Status unknown | 4 | \$6 | 1 | \$0.2 | 0 | \$0 | 5 | \$7 |
| Under Construction | 10 | \$23 | 1 | \$4 | 0 | \$0 | 11 | \$27 |
| Total | 14 | \$29 | 7 | \$8 | 0 | \$0 | 21 | \$37 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|-------------|-----------|-------------|-----------|-------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 15 | \$20 | 11 | \$13 | 10 | \$10 |
| Under Construction | 9 | \$30 | 10 | \$30 | 11 | \$27 |
| Total | 24 | \$50 | 21 | \$44 | 21 | \$37 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

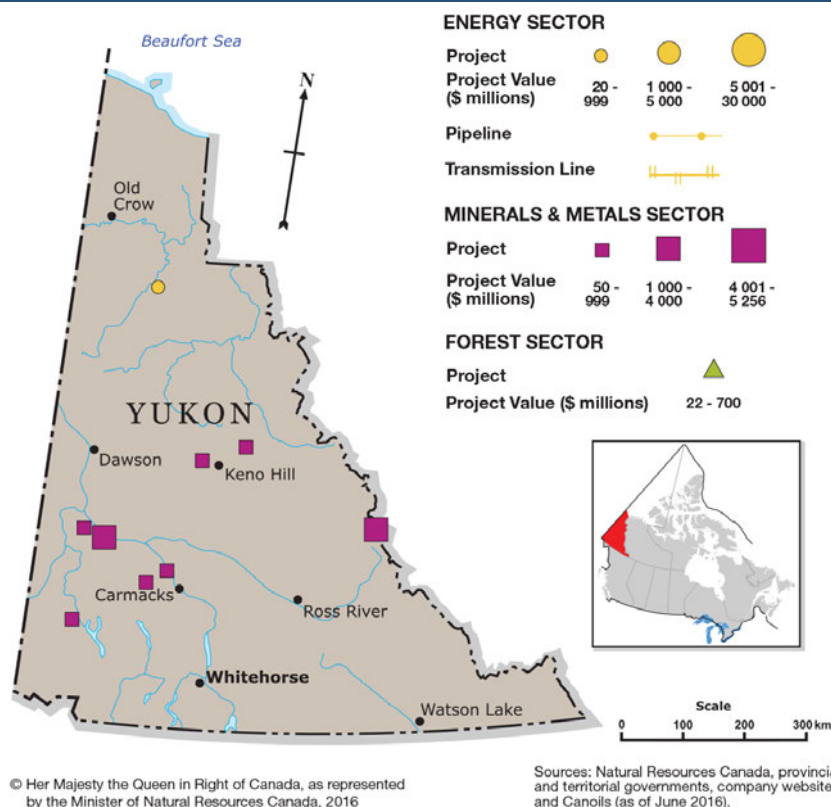
MAJOR NATURAL RESOURCES PROJECTS

Planned and Under Construction, 2016–2026



1 - Highlights

- There are nine projects currently under construction in Yukon or planned over the next 10 years, representing \$7 billion in investment.
- Mining projects account for the majority of major projects investment in Yukon (98 percent) and 89 percent of the total number of projects.
- The 2016 inventory includes the addition of one new project valued at \$260 million.
- Since 2014, the Yukon has seen a net gain of three projects planned for construction, with a \$1 billion increase in total value.
- Since 2014, no projects have advanced from planning stages into construction.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|--------------|---------------------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 1 | \$0.1 | 8 | \$6 | 0 | \$0 | 9 | \$7 |
| Announced | 1 | \$0.1 | 5 | \$3 | 0 | \$0 | 6 | \$4 |
| Under Review | 0 | \$0 | 1 | \$2 | 0 | \$0 | 1 | \$2 |
| Approval Received | 0 | \$0 | 1 | \$0.4 | 0 | \$0 | 1 | \$0.4 |
| Planned – Status unknown | 0 | \$0 | 1 | \$0.1 | 0 | \$0 | 1 | \$0.1 |
| Under Construction | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Total | 1 | \$0.1 | 8 | \$6 | 0 | \$0 | 9 | \$7 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|----------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 6 | \$6 | 9 | \$7 | 9 | \$7 |
| Under Construction | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Total | 6 | \$6 | 9 | \$7 | 9 | \$7 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

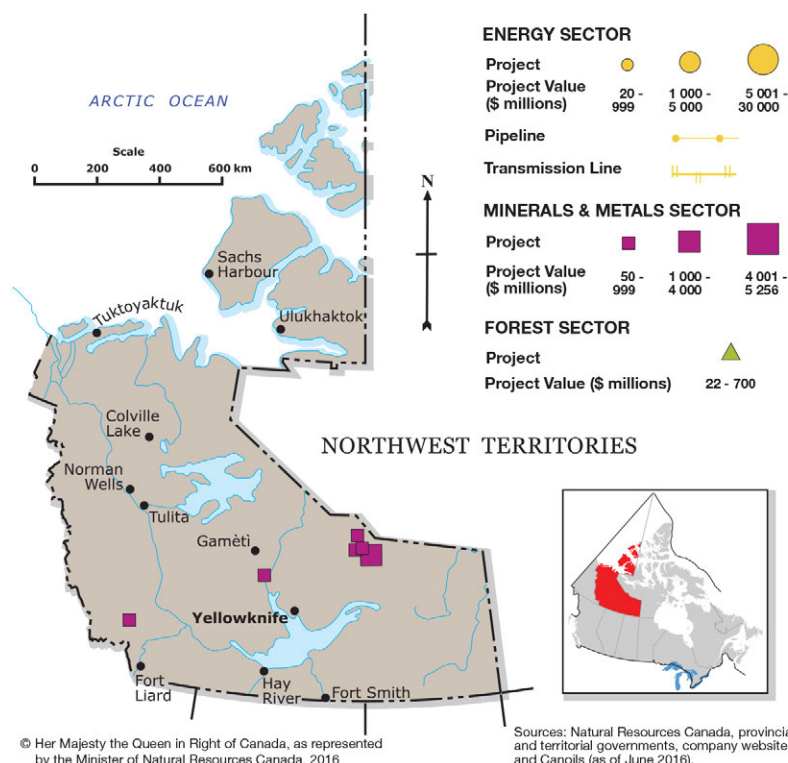
Planned and Under Construction, 2016–2026



NORTHWEST TERRITORIES

1 - Highlights

- There are six projects currently under construction in the Northwest Territories or planned over the next 10 years, representing \$3 billion in investment.
- Mining projects account for all major projects in the Northwest Territories.
- The 2016 inventory includes the addition of one new project, valued at \$150 million, and the completion of one project valued at \$390 million.
- Since 2014, the number of projects in the Northwest Territories has decreased by five, while the total value of major projects has decreased by \$4 billion.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|------------|---------------------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 0 | \$0 | 4 | \$2 | 0 | \$0 | 4 | \$2 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 0 | \$0 | 2 | \$1 | 0 | \$0 | 2 | \$1 |
| Approval Received | 0 | \$0 | 1 | \$0.6 | 0 | \$0 | 1 | \$0.6 |
| Planned – Status unknown | 0 | \$0 | 1 | \$0.1 | 0 | \$0 | 1 | \$0.1 |
| Under Construction | 0 | \$0 | 2 | \$1 | 0 | \$0 | 2 | \$1 |
| Total | 0 | \$0 | 6 | \$3 | 0 | \$0 | 6 | \$3 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|-----------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 6 | \$4 | 6 | \$4 | 4 | \$2 |
| Under Construction | 5 | \$2 | 1 | \$1 | 2 | \$1 |
| Total | 11 | \$7 | 7 | \$5 | 6 | \$3 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

MAJOR NATURAL RESOURCES PROJECTS

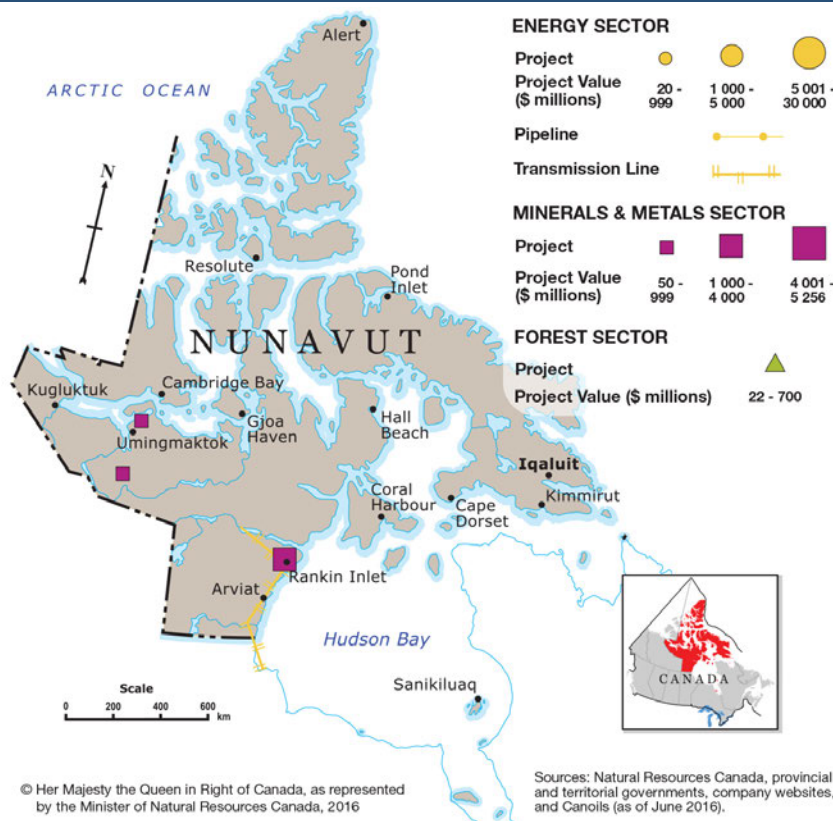
Planned and Under Construction, 2016–2026



NUNAVUT

1 - Highlights

- There are three projects currently under construction in Nunavut or planned over the next 10 years, representing \$2 billion in investment.
- Mining projects account for all major projects investment in Nunavut.
- The number of projects for Nunavut has decreased by four since 2014, while total value has declined by \$4 billion.
- Since 2014, no projects have advanced from planning stages to construction.



2 - Summary Table

| Status | Energy | | Minerals and Metals | | Forest | | Total | |
|--------------------------|----------|------------|---------------------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B | # | \$B |
| Planned | 0 | \$0 | 3 | \$2 | 0 | \$0 | 3 | \$2 |
| Announced | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Review | 0 | \$0 | 2 | \$1 | 0 | \$0 | 2 | \$1 |
| Approval Received | 0 | \$0 | 1 | \$1 | 0 | \$0 | 1 | \$1 |
| Planned – Status unknown | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Under Construction | 0 | \$0 | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Total | 0 | \$0 | 3 | \$2 | 0 | \$0 | 3 | \$2 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding

3 – 2014–16 Project Trends

| Status | 2014 | | 2015 | | 2016 | |
|--------------------|----------|------------|----------|------------|----------|------------|
| | # | \$B | # | \$B | # | \$B |
| Planned | 7 | \$6 | 4 | \$4 | 3 | \$2 |
| Under Construction | 0 | \$0 | 0 | \$0 | 0 | \$0 |
| Total | 7 | \$6 | 4 | \$4 | 3 | \$2 |

Source: Major Projects Inventory, as of June 2016

Note: Totals may not add up due to rounding