



## An Updated Look at BC's Inventory of Major Capital Projects

### Highlights

- The value of all “major” capital projects that are planned or underway in BC sits at a whopping \$344 billion.
- The total inventory of projects has increased sharply, mainly due to a large number of LNG proposals.
- Without LNG, the value of proposed capital projects is still up by more than 20% over the past few years.
- The value of all major projects currently underway in BC stands at \$83 billion, up from \$63 billion in 2011.
- Among non-residential segments, the power and mining sectors stand out as having the largest inventories of proposed projects in the Major Projects database.
- BC Hydro’s capital program is the largest source of current investment spending, outside of the residential sector.
- The data suggest that investment in the province’s manufacturing sector will be muted.
- Investment spending for port-related infrastructure continues to be an economic driver.

In this issue of Policy Perspectives, we provide a summary of capital spending on “major” projects in British Columbia. The information comes from the Major Projects Inventory [MPI], a comprehensive database tracking all substantial capital projects in the province. The MPI database is maintained by the BC Ministry of Jobs, Tourism and Skills Training. The Ministry produces a quarterly publication that includes all identified projects.

Projects are listed by status: proposed, under construction, completed, or on hold. Projects on hold for longer than two years are normally removed from the publication, but retained in the database. When projects are cancelled they are treated as cancelled and

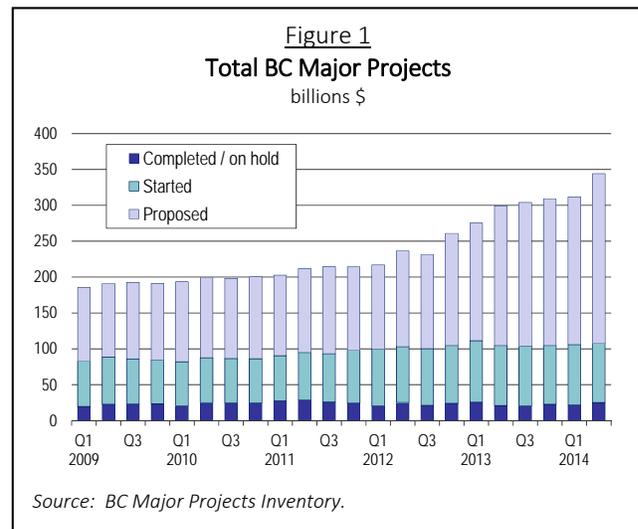
then removed from the next issue of the MPI publication.

The data provide useful insights into construction investment activity in BC. However, readers should be aware of a few important limitations. One is that the data only capture “major” projects, defined as those with estimated construction costs in excess of \$15 million (in the lower mainland region, the threshold is \$20 million). Thus, the investment figures discussed below are not reflective of all investment spending. Companies and government organizations may have projects of \$5, \$10 or \$12 million that will not be featured in the MPI.

Also note that all capital costs are estimates and therefore are subject to change, especially in the early stages of a proposal. In some instances capital costs are not included in the database because they are not available at the time the MPI is published, or because the developer requested that no capital cost data be shown. Most projects do have estimates of construction costs, so the MPI is a good source to determine the value of large projects (planned and underway); but because a few projects omit construction cost information, the publication underestimates the total value of construction spending. Importantly, the figures reported in the MPI do not include spending on machinery, equipment, technology, or various intangibles that constitute an increasingly significant part of total investment in modern economies. Finally, readers should be aware that “proposed” projects listed in the MPI are just that – the publication provides no assessment of the likelihood that such projects will actually advance, nor when they might proceed. From experience, we know that many proposed projects listed in the MPI never get built.

### Current Inventory of Projects

The total estimated value of all major projects in BC – residential and non-residential, both planned and underway – sits at \$344 billion. This is up from around \$200 billion just three years ago. While the increase is welcome and points to more investment and construction jobs in the coming years, the main reason for the jump is a surge in the number and value of proposed/planned projects, many of which are still quite speculative. The value of planned projects has risen from just over \$100 billion in early 2009 to more than \$236



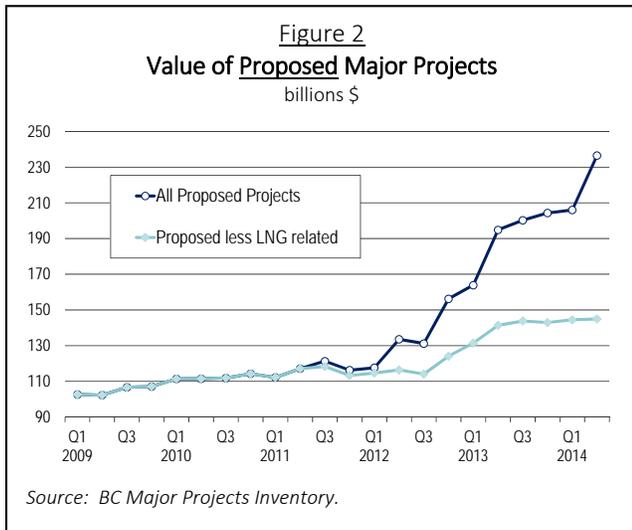
million today. This includes all of the LNG proposals, a proposed \$27 billion oil refinery in Kitimat, and a long list of mining projects that may not be developed for many years, if ever.

The total value of all large construction projects already underway in BC has also climbed over the past few years from \$63 billion to \$83 billion. This represents capital spending and construction work that is actually taking place.

### Residential Projects

Residential development projects comprise a large part of the overall inventory reported in the MPI. Of the 929 projects currently listed in the database, nearly 500 fall into the residential category. Counting and estimating the overall value of these is complicated by the fact that many residential development projects are mixed use, blending commercial and residential or accommodation and residential together. The estimated value of projects with any residential component, whether underway or proposed, is approximately \$60 billion.

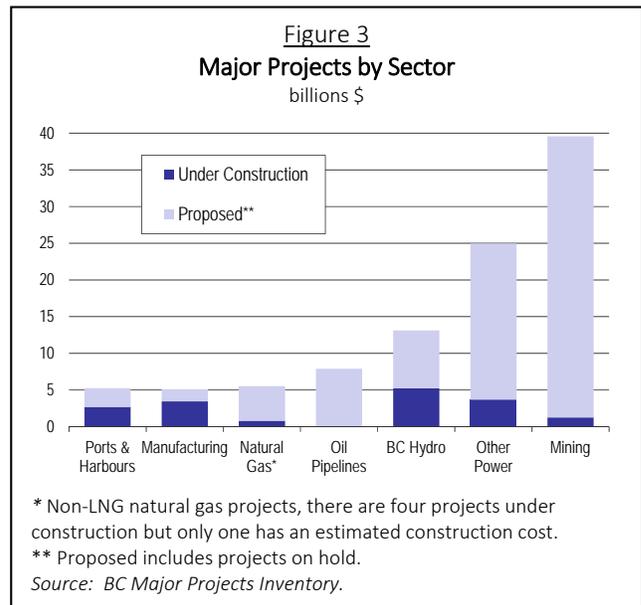
There are roughly 180 residential or mixed use residential projects underway in BC. The combined value of these is around \$35 billion. This means that more than half of all current large project construction activity in the province is in the non-residential segment.<sup>1</sup>



**Focus on LNG**

As mentioned above, a principal reason for the steep rise in the value of planned construction projects is the plethora of LNG proposals now listed in the inventory. The first LNG proposal was recorded in the MPI in the fall of 2011. Since then, the number of potential LNG projects and related pipelines in the Inventory has grown to 19, with a collective estimated value of more than \$90 billion. Some of the proposed LNG projects do not have construction cost estimates, so the above figure is lower than the actual value of all of the LNG projects combined (ignoring the question of how many ever come to fruition).

<sup>1</sup> That is, \$48 billion (\$83 billion of total projects underway minus \$35 billion of residential projects).



LNG plants and related projects account for nearly 40% of the total value of all of the proposed major projects in BC. If LNG is excluded from the count, the value of proposed projects is still up 23% since the fall of 2011.

**Mining Sector**

Based on current and proposed activity levels, the BC mining sector is an area where investment is quite soft but there is some upside potential. Today, 64 mining related projects are listed in the MPI. The value of all of these (whether classified as on hold, underway or proposed) is in the vicinity of \$40 billion (note, however, that no construction cost estimates are provided for five of the mining projects).

Reviewing the evolution of the MPI over the past few years supports the view that it is difficult to develop major land-based greenfield projects in BC – and that it seems

to be getting harder over time. In mid-2011 there were 59 mining projects proposed or on hold in the province. Three years later the MPI shows essentially the same number of proposed/on-hold mining projects, although there has been some turnover. There are eight new proposed mining projects in the Inventory, while 10 others have dropped out. A handful that previously were on hold are no longer being tracked in the MPI, likely reflecting a shift from on hold to cancelled.

Two significant mining projects have moved from the proposed category to under construction – indicating that they are being built. The Red Chris Porphyry Copper/Gold Mine being developed by Imperial Metals is one of the few mining projects that progressed to the construction phase over the past three years. The Roman Coal Mine in Tumbler Ridge, which is being developed by Peace River Coal Inc., has also moved to the construction phase. Four other “under construction” mining projects are actually expansions or upgrades to existing facilities and operations, rather than new mines.

The BC mining sector has contributed to the overall increase in the value of proposed projects. The 57 mining projects classified as proposed or on hold have an estimated aggregate construction cost of more than \$38 billion. Back in 2011 the construction cost of proposed mining projects was pegged at roughly \$27 billion.

### **Little Activity in Manufacturing**

There are only 13 manufacturing projects in the MPI database. Of these, six are classified as under construction, three are proposed, three more are on hold, and one is deemed to be “complete.”

By far the largest capital investment in the manufacturing category is Rio Tinto’s modernization of its Kitimat smelter. In the MPI, the project is valued at \$3.3 billion, but the company has reported that it will be adding another \$1.5 billion to the upgrade, bringing the project’s capital cost to \$4.8 billion. The other five manufacturing projects listed as underway are in the wood products/pulp sector. Four of these are upgrades to existing facilities; the fifth is the replacement of the Lakeland Mills sawmill near Prince George that was destroyed by fire in 2012. The rebuild of the Babine Mill in Burns Lake that was also destroyed by fire is now complete.

There are also three proposals for bio-coal/bio-carbon manufacturing facilities that would turn green wood and wood waste into bio-coal for use in coal burning and cement production. A wood pellet manufacturing facility has been proposed for the Nanaimo area.

The paucity of significant investment projects in the broad manufacturing sector is a concern. Altogether, planned capital projects related to manufacturing presently add up to just \$1.6 billion. This figure includes a \$1.3 billion facility to process raw ore to magnesium that is reportedly on hold at this point. Without that project, planned major investment in manufacturing would amount to a measly \$345 million.

### **Port and Harbour Facilities**

Additional investments necessary to accommodate ongoing growth of the Asia Pacific Gateway and the expansion of the province’s shipbuilding industry are reflected in the MPI. Sixteen port and harbor related

major projects appear in the MPI database, with an aggregate construction value of \$4.5 billion. More than half of this figure pertains to projects that are already underway. The largest capital investment (\$1.15 billion) is Port Metro Vancouver's expansion at Roberts Bank, which will boost container handling capacity from the current 900,000 TEUs to 1.3 million TEUs. The next largest investment, at the Port of Prince Rupert, is also underway. The existing terminal there is being converted to a state-of-the-art container handling facility, which eventually will be able to handle 1.2 million TEUs annually.

### **Investment Flows to Power Generation**

Capital investment in the energy sector will continue to be a significant economic driver for the province. The value of bioenergy projects, wind farms, run-of-river projects, large scale hydro development, and upgrades to existing hydro infrastructure on the books amounts to \$38 billion.

A big share of this is already underway. Boosted by BC Hydro's aggressive capital spending plan, the value of large power projects presently under construction comes to almost \$9 billion. BC Hydro is currently working on projects that total \$5.2 billion, while spending by independent power providers on projects already under construction amounts to another \$3.7 billion. These are sizable sums.

There is also a massive inventory of proposed power projects totaling \$29.2 billion. BC Hydro's proposed Site C dam is budgeted at \$7.9 billion, while other possible power sector projects add up to \$21.3 billion in estimated construction costs. As with the

mining sector, some power projects in the inventory may not be built, but the level of potential investment suggests that capital spending in the power sector will continue to be an important source of jobs and economic growth for BC in the coming years.

### **Oil Pipelines**

Two proposed oil pipelines intended to transport oil from Alberta to coastal BC (Kitimat and Burnaby) are also featured in the MPI. As figure 3 shows, these two projects represent a very substantial capital investment relative to other segments of the BC economy.

### **Other Large-Scale Projects**

The proposed Kitimat Clean Oil Refinery and pipeline is captured in the MPI database. This \$27 billion project would refine an estimated 550,000 barrels per day of condensate diluent and Alberta bitumen (dilbit) to produce 240,000 barrels of diesel per day, 100,000 barrels of gasoline, and 50,000 barrels of kerosene, all intended for offshore end-use markets. The project includes a 40-km pipeline to transport refined fuel, a marine terminal on the Douglas Channel, and a fleet of tankers. It also envisages a natural gas cogeneration facility to provide steam and electric power onsite. The indicated location for the refinery is the Dubose Industrial site located 25-km north of Kitimat.

### **Conclusion**

The total value of all capital investment counted in the government's Major Projects Inventory has increased sharply in recent years and now sits at \$344 billion. Even though we believe capital spending will be muted next year due to the soft global economy and weak commodity markets, the

surge in the value of projects reported in the MPI is part of the reason we expect capital spending to rise in BC over the medium-term.

Some caution is warranted, however. Digging into the details and reviewing the factors behind some of the biggest proposed projects suggest that the Inventory is inflated by a number of projects that ultimately may not proceed. While we are optimistic that an LNG industry will be established in the province, it is likely to include only a fraction of the 19 LNG projects listed in the MPI. Similarly, many mining and some residential projects found in the MPI will not be built or take many years to advance.

Based on current and planned investment, the power industry (BC Hydro as well as independent producers) stands out as an important source of new capital spending. Mining is also significant, but in this case the picture is skewed towards potential rather than current/imminent major projects. Converting mining projects from “proposed” to “under construction” remains a formidable challenge in British Columbia.

\*\*\*\*\*

[Jock Finlayson](#)

Executive Vice President  
and Chief Policy Officer

[Ken Peacock](#)

Chief Economist and Vice President