

## Kitimat Modernization Project Fact sheet



*Once completed, the Kitimat smelter will be one of the lowest cost and most efficient smelters in the world.*

The modernization of the aging smelter will result in significant operational, environmental and production improvements. It will secure technically advanced jobs for long term which will help keep the community strong.

### Quick facts

- Official notice to proceed announced in December 2011.
- Investment of \$4,8 billion US, making it one of the largest construction projects in British Columbia's history.
- \$ 684 million generated in direct spend in the northern BC region and \$ 487 million in the Vancouver region through the construction phase.
- Up to 3,500 people were employed at the peak of construction and the project will provide more than 1,000 longer term high skilled jobs.
- Local employment was maximized and peaked at 1,200 employees hired locally in September of 2014.
- Outstanding safety track record with over three million hours lost time injury free reached in May 2015.

**The Kitimat Modernization Project is one of the largest private construction projects in British Columbia's history.**

### The project in numbers

- 6 million bricks installed in 384 pots = building 1,148 average sized houses
- 17,850 m<sup>2</sup> of work site surface area = the surface area of 77 American football fields
- 162,500 m<sup>3</sup> of concrete poured = 20,312 trucks which could fill 43 Olympic sized swimming pools
- 9,100 metric tonnes of structural steel = enough steel to build 1.25 x Eiffel Tower
- 2,455 kilometres of electric cables = the approximative distance from Kitimat to Winnipeg; half way across Canada.

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Aluminium production capacity will be increased by 48 per cent, while having 50 per cent less impact on the local environment.

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# 48%



### The technology

- The modernization will employ the latest evolution in Rio Tinto Alcan's state-of-the-art Aluminium Pechiney Prebake technology.
- Production level will be boosted to about 420,000 tonnes of aluminium per year, while having nearly 50 per cent less impact on the local environment.
- The modernized smelter is powered exclusively by Rio Tinto's wholly owned hydro power facility and uses the company's proprietary AP40 smelting technology which will effectively halve the smelter's overall emissions.



### KMP and the environment

The current smelter is challenged with environmental performance because of its age and outdated technology. The modernization will reduce total discharge by 48.8 per cent:

- Polycyclic Aromatic Hydrocarbons (PAHs) decrease by 98 per cent;
- Gaseous Fluorides will be reduced by 72 per cent;
- Greenhouse Gas (GHG) emissions will be reduced by 36 per cent.

There will also be a 36 per cent reduction in the power required to produce a tonne of aluminium in the new smelter.



### From one mega project to another

Between 1951 and 1954, over 10,000 construction workers came from all over the world to build what was known as the Kitimat Project – dam, tunnel, powerhouse, transmission line, and a massive smelter. The Kitimat Project underwritten by the Aluminum Company of Canada (precursor to Rio Tinto) was the largest project ever undertaken by a private enterprise in Canada.

Housing that many workers was a challenge as scarce land availability and the logistics of running camps created significant challenges. One of the out-of-the-box solutions that proved to be quite successful was to bring a ship to Kitimat and use that as a temporary camp.

Some 60 years later, history was repeating itself with the arrival in Kitimat of the Silja Festival, ceremoniously redubbed the Delta Spirit Lodge, a passenger ferry recently pulled from service in the Baltic region of Europe and brought to Kitimat to house up to 650 of the 3,500 daily workers to be engaged in building the modernized aluminium smelter.