

# Northland Power's pumped storage and placements

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Northland Power has been adding capacity at an impressive rate. The installed capacity of the Canadian independent power producer (IPP) stood at 742MW in 2009. But John Brace, Northlands president and chief executive officer, projects that it will have 1,325MW in service by the end of 2013, and over 1,500MW by 2016. He expects Northland to more than double its Ebitda (earnings before interest, taxes, depreciation and amortisation) by 2015.

New projects, including joint venture developments, and acquisitions explain this sharp growth. The company owns 21.5MW of wind capacity in Germany the Eckolstädt and Kavelstorf facilities as well as a 19% stake in the 230MW Panda-Brandywine plant in Maryland, which it acquired in 2004. But its growth, and strong bank following, both result from its record in Canada.

Northland is developing the 400MW Marmora pumped storage hydro project in Ontario, which will give lenders a chance to get to grips with a rare asset type. It will also bring 70MW of solar photovoltaic (PV) capacity to market, probably in two clusters, and is nearing launch with a financing for the 60MW McLeans Mountain wind project on Ontarios Manitoulin Island, for which Manulife Financial will be the lead lender. Northland is developing Manitoulin with the islands United Chiefs and Councils of Mnidoo Mnising tribal council.

Northland rivals Brookfield, which has a larger footprint outside Canada, and wider infrastructure and real estate interests, as a top-tier Canadian IPP. Northland is mostly agnostic about fuel types. About three-quarters of its fleet is gas-fired and wind makes up the bulk of the rest, though it has small PV and biomass holdings, and is developing hydro.

It develops power plants with the aim of managing them over their full life-cycles and seeks assets with predicatable revenues from long-term power purchase agreements. Our investors are looking for stable, if not growing, dividends, Brace says. We need projects that can deliver that.

## Marmora pumped storage

Northland is developing new PV and wind projects. But the proposed Marmora pumped storage hydro project, with a cost between C\$700 million (\$675 million) and C\$800 million, has attracted far more attention. It would have a capacity of 400MW and a load when pumping for storage of 400MW.

Marmora would use a closed-loop open pit and an upper reservoir, and when power prices are low, it will pump water into that reservoir. When prices are higher, the plant will release water downhill. An estimated 127,000MW of pumped storage is available globally. Brace says that Ontario in general lacks the natural geography for pumped storage to be viable, but that Marmora is feasible. Northland proposes repurposing an old mining site, located near major power lines, between Toronto and Ottawa. Northland has argued to provincial leaders that Ontario needs a means of offsetting the variability of the 10,700MW of renewables capacity that it may have online by 2018.

Third-party consultant Navigant produced a report that said that, had Marmora been operational between 2009 and 2011, it would have reduced curtailment of generators because of surplus baseload generation by 35%, according to

John Wright, Northlands director of business development. Pumped storage, Northland has suggested, generally enjoys lower capital costs than other technologies. Marmora, it says, enjoys a strong position, because it has a lower reservoir that is already filled with water, and already has the materials for the upper reservoir in place.

Northland will build the project if it can sign an offtake agreement of up to 40 years with the Ontario Power Authority, a provincial agency. While pumped storage facilities tend to be very efficient means of capturing differentials in market prices, Northlands business model does not allow for it to take on significant merchant risk. Northland hopes that any PPA for Marmora would feature capacity payments, and allow it to raise debt for up to 80% of project costs.

### Northlands back story

Northland was founded in 1987, near the onset of independent power production in Canada. This was no coincidence. In the mid-1980s, Ontario Hydro a publicly-owned provincial utility had begun to lose its grip on its monopoly of the power, transmission and distribution industries. The province broke Ontario Hydro up in 1999, but retains a significant role in Ontarios power sector.

Northlands first project was Canadas first power plant to use unprocessed wood chips as fuel. It ran on excess wood waste from a mill in Cochrane, Ontario, that had received cease-and-desist orders for its glut of supply. That was the genesis of Northland, says Brace, who joined the company in 1988. A later project, Kirkland Lake, is said to be the first IPP in the country to close a project financing with insurance companies.

Because we were early movers in independent power production, we were national leaders from the get-go, recalls Brace, although Northland only operated in Ontario at the time. Northland developed projects that used biomass boilers, gas-fired turbines, cogeneration or a combination of these configurations. The opportunity to do gas-fired was vigorously pursued, Brace adds, though that would prove difficult at first, because Western Canada possessed much of the countrys gas reserves.

In the early days, there was no gas market in Ontario, Brace recalls. Ontario Hydro bought and sold electricity, but didnt use natural gas. This created a significant challenge, as there [were] no system/tools in place for buying natural gas or reliably predicting the cost over the long-term, except through a direct contract.

Northland attempted to resolve this gas-electricity puzzle, as Brace labels it. On our 66th try, we were successful at bridging the gap between the gas producers and the electricity producers, Brace says. Indeed, Northland helped make its name by transporting natural gas.

In 1997, Northland set another precedent when it closed a C\$308 million initial public offering (IPO) for the Northland Power Income Fund the first public offering of an independently power project in Canada. Some of Northlands peers soon copied its strategy. The fund launched as a single-asset venture, but soon bought more assets to diversify its portfolio and limit its exposure. By 2009, it indirectly owned equity in six power projects.

In 2011, Northland merged with the fund, which it had managed through its wholly-owned subsidiary Northland Power Income Fund Management, simplifying its development and operational activities. The fund became less useful when Canada phased out the pass-through tax treatment of income funds. Northland had to be nimble to seize opportunities in gas-fired generation in Ontario renewables, where province of Ontario was using a feed-in tariff to encourage development. It was kind of a no-brainer to put the companies together, says Paul Bradley, who joined Northland as chief financial officer in 2011.

### **Bradley joins**

Bradley had been familiar with Northland for more than a decade before he joined as CFO. He first dealt with the company whilst at CIBC, which he had joined in 1997, just as the funds IPO closed, and got to know Brace and Tony Anderson, his predecessor as CFO.

After Bradley left CIBC, he shifted to advisory work, with Northland as his first client. Bradley then joined the OPA, where

he was a counterparty to Northland. Bradley helped launch the agency, managing the tenders for independent power production and negotiating PPAs. Bradley then moved to Macquaries office in Toronto after two years at the OPA.

Shortly after that, Northland called to gauge his interest in replacing Anderson, who was retiring from that post. But Bradley initially declined the offer, saying he wanted to help build Macquaries business in Toronto. Northlands merger was also looming. But when Northland later asked Bradley to help find Andersons successor, he reconsidered.

### u Building relationships

Northland depended initially on Canadian lenders for non-recourse debt, often life-insurance companies. BMO, CIBC, Manulife, Scotiabank and Sun Life are among Northlands relationship lenders. But as Northland and its projects gained in size, it started building up a larger lender base beyond Canada. Its push into renewables would require access to a wider universe of lenders.

In 2007, Northland closed a C\$244 million syndicated loan package with four international lenders Allied Irish Bank (AIB), Bank of Tokyo-Mitsubishi UFJ, Fortis and Union Bank. The debt supported Northlands 265MW Thorold cogeneration project on the Canadian side of Niagara Falls, and broke down into a C\$207.5 million construction and term loan, and a C\$36.5 million letter of credit facility. The loan was part of a larger \$451 million financing package, and complemented a C\$207 million institutional tranche led by Manulife and Sun Life.

Northland added to its pool of relationship lenders in August 2010 with the C\$580 million debt package for its 265MW North Battleford combined-cycle project in Saskatchewan. Union Bank was a lead lender in that deal, which featured a mini-perm, and attracted international lenders AIB, Bayern/LB, Helaba, Mizuho, Natixis, Siemens Financial Services, SG and Sumitomo Mitsui Banking Corporation.

North Battleford was Northlands second Saskatchewan gas-fired project to close a non-recourse financing in 2010. The 86MW Spy Hill peaker preceded it, in the second quarter of 2010. Both plants benefit from 20-year power purchase agreements with SaskPower, the provincial-owned utility. Tonys vision at the time was this: With North Battleford being so easy to understand, you get the banks in, then get them ready for the coming renewables deals, Bradley says.

### u Recent activities

Union Bank has emerged as a regular Northland lender. It also was a lead on a long-dated C\$227 million term loan for 60MW of ground-mounted solar photovoltaic capacity, a financing that closed in mid-2012.

In January, Northland closed its first-ever rated project bond for Spy Hill. The A-rated private placement was 3.5x oversubscribed and had a coupon of 4.14%. Northland may look to refinance North Battleford in the Canadian private placement market after operations begin this year. Our goal is to close the last open switch in the project created by the spread risk on the mini-perms, Bradley said earlier this year.

Earlier in 2013, Northland bought a controlling interest in Canadian Environmental Energy Corporation, which controls the voting shares in Kirkland Lake Power, the owner of the 132MW Kirkland Lake project. It also bought all the shares in Capais Power Services, the owner of the 40MW Cochrane project, from the Probyn Group. Northland has been the operator of both projects.

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