

THE NORTHERN MINER

THE GLOBAL
MINING
NEWSPAPER

www.northernminer.com

JANUARY 2-8, 2012 • VOL. 97, NO. 46 • SINCE 1915

Western Lithium completes prefeasibility on Kings Valley

BY TRISH SAYWELL

Jay Chmelauskas bought his 100%-electric Nissan Leaf about a month ago and charges its battery at one of two charging stations across the street from the Pan Pacific Hotel in downtown Vancouver. The car gets him around town and his family to the local ski hills. And a \$5,000 rebate from the provincial government makes the \$40,000 sticker price far more palatable. But it's the "fantastic technology" that convinces him that going electric is the way of the future.

"It is a very smooth drive and it has a lot of acceleration," says the president of **Western Lithium** (wlc-t). "They're wonderful to drive. I don't think of it as better environmental technology, I just look at it as better technology."

And like all new technology, he says not only does it perform better, but it will go down in price over time. In the meantime the cost of charging an electric car relative to the cost of oil is 10% to 20%, he says, meaning that if it costs \$300 a month to operate a conventional car, the cost of operating an electric car would be in the range of \$30 to \$50.

If Chmelauskas sounds like a true believer in the electrification of the automobile industry, that's because he is. He also believes that as more and more consumers choose electric cars, demand for lithium in the U.S. and around the world will only grow. "We've got various projections now from multiple groups that indicate a four- to seven-fold increase in lithium demand out to 2020-2030, which is a big number," he says, adding that it typically takes between five and 10 years to get a lithium project into production.

Western Lithium has been at it in Ne-



WESTERN LITHIUM

Drillers at work at Western Lithium's Kings Valley lithium project in Humboldt County, Nevada.

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vada for the last four years and has just completed a positive prefeasibility study on its 100%-owned Kings Valley lithium project in Humboldt County, 100 km northwest of Winnemucca and 40 km northwest of Orovada.

“Our deposit in Nevada has the potential to make the United States self-sufficient in lithium to support up to one million electric vehicles per year,” he says. “Production of lithium in Nevada not only has the benefit of long-term mining and chemical industry jobs, but also has the potential to support downstream technology and manufacturing jobs in the United States. Lithium is the enabling metal for electric transportation.”

The prefeasibility considered two scenarios: a start-up scenario in which lithium carbonate production would start in 2015 at an annual rate of 13,000 tonnes per year at 2,100 tonnes per day, and a

second scenario of full production at 26,000 tonnes per year four years after start-up, if demand for lithium grows.

The study demonstrated that the project could produce lithium carbonate at an estimated average cash cost, net of by-product credits, of US\$968 per tonne once full production of 26,000 tonnes per year of lithium carbonate is achieved.

Initial start-up capital is anticipated to be US\$248 million, and incremental development capital to double lithium production to 26,000 tonnes a year would cost about US\$161 million.

For the 26,000-tonne-per-year scenario, King Valley would yield a pre-tax net present value of US\$552 million, with a 24% internal rate of return at an 8% discount rate.

Once full lithium production is achieved, the company anticipates average annual cash flow of US\$124 million

a year. The study was based on commodity prices of US\$6,000 per tonne for lithium carbonate, US\$600 per tonne potassium sulfate and US\$75 per tonne sodium sulfate. Overall recoveries are expected to be 87.2% for lithium, 77.7% for potassium and 82.7% for sodium.

The proposed open-pit mine would have a life of 20 years, processing 25.5 million tonnes of ore at an average grade of 0.40% lithium using a 0.32% cut-off grade.

Western Lithium will start work next year on a definitive feasibility study and submit a plan of operations to the U.S. Bureau of Land Management in the first quarter of 2012, which will begin the formal permitting process.

At presstime Western Lithium traded at 26.5¢ per share within a 52-week range of 27.5¢–\$1.64 per share. The company has 100.7 million shares outstanding.