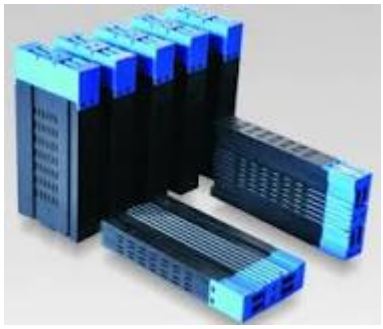
Avalon Advanced Materials issue EV industry update

Avalon Advanced Materials {TSX: AVL} have issued an EV industry update, with a focus on the battery materials required, principally cobalt and lithium.

China has recently accelerated the transition to EV vehicles from the internal combustion engine.



INDUSTRY BULLETIN: EV Sales Quotas in China to put increasing pressure on battery materials supply

chain

China is the global leader in the shift towards electric vehicles (“EVs”) and is the world’s largest market for new cars. With annual sales in 2016 totalling ~24 million vehicles, if even a small percentage were EVs going forward, this will create enormous new demand for the needed battery materials – notably lithium. Recently, China has published more information on their plans to accelerate the transition from internal combustions engine (“ICE”) vehicles to EVs.

Starting in 2019, there will be a “new energy vehicles” sales quota for automakers in China of 10% of annual sales, rising to 12% in 2020, with hefty fines if not met. As noted in the same article by Colin McKerracher, a London-based analyst at Bloomberg New Energy Finance: “This is the single most important piece of EV legislation globally.”

Considering 12% of annual sales would be an approximately 10% increase from the 1.8% market share EVs presently occupy in China, this would be an increase in ~2,400,000 EVs per year sold. Translating this to raw material demand, if we assume an average of 40kWh per vehicle battery, and 0.9kg of lithium carbonate equivalent (“LCE”) needed per kWh, this would represent a further increase in global demand for LCE of approximately 86,400 tonnes, half of last year’s total lithium global market, for just one country in just three years! Remembering that any new production of the critical materials needed (such as lithium) can take upwards of five years to bring online, the supply chain will certainly be challenged to

keep up with the growing demand. This should sustain strong lithium prices for years to come.

While predictions on timelines vary, the scale of the shift is undeniable. Looking ahead, consider that Volkswagen predicts a total of 1.5 terawatt-hours per year will be required within the global automotive industry by around 2030. This would represent a need for ~1,350,000 tonnes of LCE per year – about nine times the current global market. This increase in EV production would need 47 new lithium production operations at 25,000t of LCE/year each to meet these goals.

More recently, policymakers in California, where about two million cars are sold per year, announced their intention to impose a ban on ICE vehicles. With these policy changes happening around the world, it was not surprising to see GM announcing they will produce 20 EV models by 2023.

The shift is on, and those moving in this direction must start to immediately plan for how they will meet their critical raw material needs. Avalon's advanced Separation Rapids Lithium Project is a leading opportunity to supply the high quality, sustainably-produced lithium needed for their current and future needs, with the potential to bring a new supply to market in less than five years.

For questions or feedback, please email Avalon at ir@AvalonAM.com

About Avalon Advanced Materials Inc.

Avalon Advanced Materials Inc. is a Canadian mineral development company specializing in niche market metals and minerals with growing demand in new technology. The Company has three advanced stage projects, all 100%-owned, providing investors with exposure to lithium, tin and indium, as well as rare earth elements, tantalum, niobium, and zirconium. Avalon is currently focusing on its Separation Rapids Lithium Project, Kenora, ON and its East Kemptville Tin-Indium Project, Yarmouth, NS. Social responsibility and environmental stewardship are corporate cornerstones.

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