



The Rise of Lithium Ion Batteries in Canada

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Summary:

With net-metering now having limits placed on it by utilities, there is renewed market demand in Canada for compact, cost effective, and efficient battery backup systems. This opportunity has opened the door to lithium ion batteries, one of Canada's emerging 'clean-technologies' that is well placed to meet the increasing market demand.

Highlights:

- While previous battery backup systems — generally composed of a bank of lead-acid batteries, a charge controller, solar panels and an inverter — continue to be popular for off-grid use, systems that use lithium ion batteries are more compact and efficient because of their lighter weight, wall-mountable capability, and because they are capable of more charge-discharge cycles than previous models — meaning they have greater longevity.
- While lithium ion battery models are more compact and efficient, they are also more expensive than models that use lead-acid batteries. However, this could change as lithium ion battery production is increasing due to more plug-in hybrid and electric vehicles switching over to lithium ion batteries — potentially spurring price changes.

Potential Opportunities:

- Lithium ion battery systems also employ advanced electronics and software control systems to further reduce costs and increase functionality. This provides significant opportunities for U.S. businesses as both manufacturing and ICT industries will be needed to produce the necessary components, casing, electronic hardware, software, etc. needed to support next generation battery systems.
- This also creates new opportunities in the renewable energy sector because the introduction of new battery storage systems will be able to maximize intermittent wind and solar energy generation. This may encourage wind and solar energy production, which creates opportunities for US firms which can supply products and services for renewable energy production.
- New lithium ion battery storage systems will also likely be popular in rural areas in both the U.S. and Canada; as rural and off-grid users can use renewable sources popular in prairie regions, such as solar and wind power, to store excess energy without utility limits — this could create additional opportunities in Central, Northern and East Coast Canada.

Future Implications:

The battery storage industry continues to see increasing demand, improving technology, lowering costs, and extensive government incentives, which are all helping to promote wide-spread adoption. This is creating a landscape of opportunities for U.S businesses that wish to enter this growing Canadian industry.

Upcoming Events and Conferences

- [Canada Far North Trade Mission](#): October 8-9, 2014 – Gatineau, QC & Virtual
- [CanWea 2014](#): October 27-29, 2014 – Montreal, QC
- [Cleantech Forum San Francisco 2015](#): March 16-18, 2015 – San Francisco, CA

Web Resources:

- [Renewable Energy World \(June 12, 2014\) - Listen Up: Home Solar Battery Storage Systems Are Coming](#)

For More Information

Please contact **Jared Byrne**, the Commercial Specialist in the Clean Technology sector at the U.S. Commercial Service in Canada at Jared.Byrne@trade.gov or (403) 265-2116. You can also visit our website at <http://www.export.gov/canada>.

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