UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of January 2017

Commission File Number: 001-33107

CANADIAN SOLAR INC.

545 Speedvale Avenue West Guelph, Ontario, Canada N1K 1E6

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ⊠ Form 40-F □

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

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Form 6-K

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CANADIAN SOLAR INC.

By: /s/ Shawn (Xiaohua) Qu

Name: Shawn (Xiaohua) Qu

Title: Chairman, President and Chief Executive Officer

Date: January 6, 2017

EXHIBIT INDEX

Exhibit 99.1 — Press Release



Canadian Solar Completes Sale of BeamLight and Alfred Solar Power Plants to Concord Green Energy

GUELPH, Ontario, Canada, January 5, 2017 — Canadian Solar Inc. (the "Company", or "Canadian Solar") (NASDAQ: CSIQ), one of the world's largest solar power companies, today announced that its wholly owned subsidiary, Canadian Solar Solutions Inc., completed the sale of its 10 MW AC BeamLight LP ("BeamLight") and its 10 MW AC Alfred solar power plants to 9285806 Canada Inc. and Concord BeamLight GP2 Ltd., affiliates of Concord Green Energy Inc. ("Concord") for over CAD152.5 Million (USD115 Million). The transaction was closed on December 29, 2016 and the Company expects to recognize the difference between the sales proceeds and the book value of the projects under 'Other income (expenses)' in the income statement for the fourth quarter of 2016. BowMont Capital and Advisory acted as financial advisor to Concord on this transaction.

The BeamLight plant is located in Georgina, Ontario and uses approximately 46,224 Canadian Solar MaxPower CS6X-P PV modules. The Alfred plant is located in Alfred, Ontario and uses about 46,656 Canadian Solar MaxPower CS6X—P PV modules.

These solar systems will generate significant environmental benefits. The amount of clean solar energy that the plants will collectively generate is estimated at 35,941 MWh per year and 665,130 MWh over 20 years. The amount of carbon dioxide that will be displaced during the systems' 20 year lifetimes is approximately 467,437 metric tons, equivalent to taking around 98,738 cars off of the road for one year.

"Dr. Shawn Qu, Chairman and Chief Executive Officer of Canadian Solar, commented: "We are very pleased to announce the successful sale of two operating solar power plants in Canada. This deal demonstrates that we are well on track to monetize our quality solar power plant assets to recycle our capital and strengthen our balance sheet. This is another successful cooperation between Canadian Solar and Concord Green Energy after a previous transaction of 5 solar power plants in Canada. We value our strategic partnership with Concord Green Energy and look forward to continuing our successful cooperation."

About Canadian Solar Inc.

Founded in 2001 in Canada, Canadian Solar is one of the world's largest and foremost solar power companies. As a leading manufacturer of solar photovoltaic modules and provider of solar energy solutions, Canadian Solar also has a geographically diversified pipeline of utility-scale power projects in various stages of development. In the past 16 years, Canadian Solar has successfully delivered over 17 GW of premium quality modules to over 90 countries around the world. Furthermore, Canadian Solar is one of the most bankable companies in the solar industry, having been publicly listed on NASDAQ since 2006. For additional information about the company, follow Canadian Solar on LinkedIn or visit www.canadiansolar.com.

About Concord Pacific and Concord Green Energy Inc.

Concord Pacific created Concord Green Energy to explore and support a variety of zero carbon energy producing projects of scale. Planning for infrastructure needs and requirements of Canadians has always been a cornerstone to Canada's first urban master-planned community builder, Concord Pacific. Energy considerations and solutions will be significant to success to sustainable communities of the future. Concord Green Energy has projects of scale at various stages of planning, development, and operation across Canada., visit www.concordpacific.com.

Safe Harbor/Forward-Looking Statements

Certain statements in this press release regarding the Company's expected future shipment volumes, gross margins, business prospects and future results, are forward-looking statements that involve a number of risks and uncertainties that could cause actual results to differ materially. These statements are made under the "Safe Harbor" provisions of the U.S. Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by such terms as "believes," "expects," "anticipates," "intends," "estimates," the negative of these terms, or other comparable terminology. Factors that could cause actual results to differ include general business and economic conditions and the state of the solar industry; governmental support for the deployment of solar power; future available supplies of high-purity silicon; demand for end-use products by consumers and inventory levels of such products in the supply chain; changes in demand from significant customers; changes in demand from major markets such as Japan, the U.S., India and China; changes in customer order patterns; changes in product mix; capacity utilization; level of competition; pricing pressure and declines in average selling prices; delays in new product introduction; delays in utility-scale project approval process; delays in utility-scale project construction; cancelation of utility-scale feed-intariff contracts in Japan; continued success in technological innovations and delivery of products with the features customers demand; shortage in supply of materials or capacity requirements; availability of financing; exchange rate fluctuations; litigation and other risks as described in the Company's SEC filings, including its annual report on Form 20-F filed on April 20, 2016. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, level of activity, performance, or achievements. Investors should not place undue reliance on these forward-