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 April 2012

Commission File Number: 001-33107

CANADIAN SOLAR INC.

No. 199 Lushan Road Suzhou New District Suzhou, Jiangsu 215129 People's Republic of China (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):

Table of Contents

CANADIAN SOLAR INC.

Form 6-K

TABLE OF CONTENTS

Signature

Exhibit Index

Exhibit 99.1 — Press Release

Table of Contents

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/ Michael G. Potter

Name: Michael G. Potter Title: Chief Financial Officer

Date: April 17, 2012

3

Table of Contents

EXHIBIT INDEX

Exhibit 99.1-Press Release

4





Solar Leaders Canadian Solar and SkyPower Enter Into Purchase and Joint Venture Agreement

Transaction Further Expands Canadian Solar's Solar Project Pipeline in Canada and Positions Both Companies for International Growth

GUELPH and TORONTO, Ontario — **April 17, 2012** — Canadian Solar Inc. (the "Company", or "Canadian Solar") (NASDAQ: CSIQ) and SkyPower Limited ("SkyPower") have entered into a landmark purchase and international joint venture agreement, which creates a powerful team comprising of one of the world's largest solar companies and Canada's largest owner and developer of solar projects to build and deploy solar energy solutions in Ontario, and to jointly develop solar projects internationally in select emerging markets.

Under the agreement, Canadian Solar will acquire a majority interest in 16 solar projects representing approximately 190-200MW DC from SkyPower. Each of these projects was awarded a 20-year power purchase contract by the Ontario Power Authority. Fifteen of these contracts were issued under Ontario's Feed-In-Tariff Program, and one was issued as part of Ontario's Renewable Energy Standard Offer Program. These projects are in the advanced permitting stage and are expected to commence construction in 2013 and be fully operational in 2014. They are expected to generate over C\$ 800 million (US\$ 800 million) in revenue for Canadian Solar.

It is expected that the manufacturing and construction of these projects will create hundreds of new jobs in Ontario and continue to position Ontario as a North American leader in green energy.

Canadian Solar and SkyPower have also agreed to form a 50:50 international joint venture focused on developing solar power plants in select emerging markets. The Company expects to start generating revenue from this global strategic initiative within the next two to three years.

The transaction price is approximately C\$185 million (US\$ 185 million) to be paid at certain milestones. Canadian Solar will assume certain security deposits, which are typical with FIT contracts. In conjunction with the transaction, a five-year warrant is being issued to SkyPower for 9.9% of Canadian Solar's outstanding shares, with a strike price of US\$5.00.

Dr. Shawn Qu, Chairman and Chief Executive Officer of Canadian Solar, remarked: "We are pleased to expand our partnership with SkyPower after successfully building three projects for them in Ontario over the past 12 months. This transaction solidifies our Ontario pipeline well into 2014 and supports our stated goal of achieving 40 percent of revenue from providing solar power plants and total system solutions in 2013. Importantly, while the total mega wattage in the transaction is significant, at approximately 190 to 200 MW, the actual project sizes are directly aligned with our strategy of concentrating on smaller utility scale projects that individually are less risky to finance and execute on. We remain open to larger projects should the opportunity be matched with our ability to obtain financing and construct the projects and we are excited about the opportunity to expand our relationship with SkyPower in select international markets through our new joint venture."

Kerry Adler, President and Chief Executive Officer of SkyPower, said: "We have a successful history working together with Canadian Solar on developing and building solar projects in Canada. We are pleased to have such a strong partner in terms of industry expertise, brand and bankability. We will continue to invest in and build our extensive solar pipeline across Ontario and we look forward to expanding internationally in select markets under this new joint venture."

About Canadian Solar Inc. (NASDAQ: CSIQ)

Canadian Solar Inc. (NASDAQ: CSIQ) is one of the world's largest solar companies. As a leading vertically integrated provider of ingots, wafers, solar cells, solar modules and other solar applications, Canadian Solar designs, manufactures and delivers solar products and solar system solutions for on-grid and offgrid use to customers worldwide. With operations in North America, Europe, Australia and Asia, Canadian Solar provides premium quality, cost-effective and environmentally-friendly solar solutions to support global, sustainable development. For more information, please visit www.canadiansolar.com.

About SkyPower Limited

SkyPower Limited is Canada's largest owner and developer of solar energy projects. As the company behind First Light I, Canada's first utility-scale, fully operating solar park, SkyPower also has one of the most impressive pipelines of solar projects in North America. With 250 MW of awarded power purchase contracts, including 67 MW of installed operating capacity and more than 2.0 GW at advanced stages of development worldwide, SkyPower prospects, develops, finances, owns and operates solar energy projects from the initial discovery stages through to commercial operation. SkyPower is working with many jurisdictions around the world to meet their increasing need for cleaner, non-emitting renewable energy solutions. SkyPower is majority owned by Los Angeles-based real estate and infrastructure investment firm CIM Group. For more information about SkyPower, please visit www.skypower.com.

Safe Harbor/Forward-Looking Statements:

Certain statements in this press release including statements regarding our expectation that construction on the projects will commence in 2013 and become fully operational in 2014, the projects will generate over C\$ 800 million in revenue for Canadian Solar, and the projects will create hundreds of new jobs in Ontario, as well as the expected impact of the purchase and joint venture agreement on our market position, operations and financial 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 the risks regarding the 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 in the Canadian markets; changes in customer order patterns; capacity utilization; pricing pressure and declines in average selling prices; delays in utility-scale project approval process; delays in utility-scale project construction; 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 May 17, 2011. 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. You should not place undue reliance on these forward-looking statements. All information provided in this press release is as of today's date, unless otherwise stated, and Canadian Solar undertakes no duty to update such information, except as required under applicable law.