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 February 2018

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 x Form 40-F o

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): o

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): o

Table of Contents

CANADIAN SOLAR INC.

Form 6-K

TABLE OF CONTENTS

Signature

Exhibit Index

Exhibit 99.1

2

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/ Shawn (Xiaohua) Qu

Name: Title:

Shawn (Xiaohua) Qu Chairman, President and Chief Executive Officer

Date: February 22, 2018

3

Table of Contents

EXHIBIT INDEX

Exhibit 99.1 — Press Release

4



Canadian Solar Completes the Sale of a 142MWp Solar Portfolio in the United Kingdom

GUELPH, Ontario, February 22, 2018 — **Canadian Solar Inc.** (the "Company", or "Canadian Solar") (NASDAQ: CSIQ), one of the world's largest solar power companies, today announced that it has completed the sale of a 142MWp solar portfolio to Greencoat Solar II LP ("Greencoat Solar"), managed by Greencoat Capital LLP ("Greencoat").

The solar portfolio consists of 24 operational solar power plants across England, Wales and Scotland, and is expected to provide inflation-linked solar power generation revenues for a period of 20 years under the UK's Renewable Obligation Certificate (ROC) and Feed-In Tariff (FIT) schemes. The portfolio was valued at approximately GBP 191.2 million (US\$267.7 million), net of distributions of GBP 3.8 million (US\$5.3 million) made prior to closing. Completion of the sale has further reduced non-recourse project debt on the Company's balance sheet by approximately GBP123.0 million (US\$172.2 million). Canadian Solar expects to use the sale proceeds to further strengthen its balance sheet.

The 24 solar power plants will generate approximately 142,000 MWh of clean energy annually, sufficient for approximately 46,000 UK households and will reduce CO₂ emissions by 56,800 tons per year. Three of the solar power plants will provide additional benefit under the Community Interest Companies (CIC) scheme, in which profits will benefit the community. The solar power portfolio includes 272,000 Canadian Solar CS6P and CS6U modules. Canadian Solar will provide operations and maintenance services for all 24 solar power plants.

"We are delighted to work with Greencoat, a leading UK renewable infrastructure investment firm, on the sale of our solar asset portfolio. Our sizable operational portfolio creates an interesting investment platform for high quality solar asset growth in the UK," commented Dr. Shawn Qu, Chairman and Chief Executive Officer of Canadian Solar. "This transaction demonstrates our continuing ability to monetize our assets effectively and maximize shareholder return. We are well positioned to capitalize on the appreciating sterling pound currency environment and look forward to partnering with Greencoat on future opportunities."

About Greencoat Capital

Greencoat Capital is a specialist asset manager dedicated to the resource efficiency and renewable energy sectors. It has offices in London and Dublin, and more than £2.0bn under management, making it one of the largest of such fund managers in Europe. It was founded in 2009 and currently has fund mandates with segregated strategies in wind infrastructure, solar infrastructure and private equity.

About Greencoat Solar

Greencoat Solar is a platform within Greencoat Capital managing two funds with in excess of £0.6 billion under management. The funds own and operate ground mount solar PV generation assets to provide a robust, inflation-linked income to investors. Acquisitions are made with long-term investment horizons. Greencoat Solar funds currently own c. 470MW of generation capacity across 50+ solar farms around the UK.

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 25 GW of premium quality modules to over 100 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.

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-in-tariff 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 27, 2017. 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