
**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 October 2021

Commission File Number: 001-40370

BITFARMS LTD.
(Exact Name of Registrant as Specified in Its Charter)

18 King Street East, Suite 902, Toronto, Ontario, Canada M5C 1C4
(Address of principal executive offices)

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): ☐

INCORPORATION BY REFERENCE

On October 27, 2021, the Registrant filed with the Canadian Securities Regulatory Authorities on the System for Electronic Data Analysis and Retrieval (SEDAR) a material change report that includes a copy of a press release, a copy of which is attached hereto as Exhibit 99.1, and which is incorporated by reference to the Company's Registration Statement on Form F-10 (File No. 333-258788).

Exhibits

Exhibit No.	Description
99.1	Material Change Report dated October 27, 2021

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.

BITFARMS LTD.

By: /s/ L. Geoffrey Morphy

Name: L. Geoffrey Morphy

Title: President

Date: October 27, 2021

**FORM 51-102F3
MATERIAL CHANGE REPORT**

Item 1 Name and Address of Company

Bitfarms Ltd. (“Bitfarms” or the “Company”)
18 King Street East, Suite 902
Toronto, Ontario M5C 1C4

Item 2 Date of Material Change

October 27, 2021.

Item 3 News Release

The press release attached as Schedule “A” was released on October 27, 2021 by a newswire company in Canada.

Item 4 Summary of Material Change

The material change is described in the press release attached as Schedule “A”.

Item 5 Full Description of Material Change

The material change is described in the press release attached as Schedule “A”.

Item 6 Reliance of subsection 7.1(2) of National Instrument 51-102

Not applicable.

Item 7 Omitted Information

Not applicable.

Item 8 Executive Officer

Nicolas Bonta
Executive Chairman & Director
Bitfarms Ltd.
nbonta@bitfarms.com

Item 9 Date of Report

October 27, 2021.



Bitfarms Building Two New Farms in City of Sherbrooke with 78 Megawatts of Total Capacity

- Farms Will Utilize Existing Cost-Effective Hydro Power Contracts and Are Scheduled to be Completed in Phases in 2022 -

This news release constitutes a "designated news release" for the purposes of the Company's prospectus supplement dated August 16, 2021, to its short form base shelf prospectus dated August 12, 2021.

Toronto, Ontario and Brossard, Québec (October 27, 2021) - Bitfarms Ltd. (NASDAQ: BITE/TSXV: BITE), a global Bitcoin mining company, is constructing two new high power production facilities leased in Sherbrooke, Québec, which are scheduled to be completed in phases during the first and second quarters of 2022. The farms' combined capacity of 78 megawatts (MW) is expected to accommodate approximately 21,000 new Bitcoin miners and generate approximately 2.1 Exahash/second (EH/s). Bitfarms currently has five fully operational farms, and this project expands new farms in construction from two to four.

"Committed to increasing our capacity and hashrate in a cost-effective manner, we have been working closely with the City of Sherbrooke to expedite our expansion," said Emiliano Grodzki, CEO of Bitfarms. "Both farms will benefit from our existing cost-effective contracts that supply green hydro power at an average cost of just US four cents per kilowatt hour. Similar to all our other Québec farms, they will be passively cooled by the Canadian climate, reducing total energy consumption and operating costs. Most importantly, while also minimizing the risk of disruptions, these farms continue Bitfarms' strategy of operating decentralized facilities to boost our capacity and support our goal of achieving 3 EH/s by the end of first quarter of 2022 and 8 EH/s by the end of 2022."

The Sherbrooke Farms

Bitfarms has energy contracts under the same pricing terms within the Sherbrooke city limits for 96 MW. Bitfarms plans to eventually retire the existing 26 MW de la Pointe facility in phases and open three new farms that will be situated in more remote, less populated locations and include numerous enhanced sound-reduction design features as well as monitoring devices outside the facility to report sound emissions data in real-time. The first two farms – Leger and The Bunker – when completed are expected to have a combined capacity of 78 MW. The third farm, when secured, is expected to have capacity of 18 MW.

Leger: 30 MW Facility expected to deliver 800 petahash/second (PH/s)

- Construction is underway and is expected to be completed in the first quarter of 2022.
- 8,000 latest generation miners are expected to be operational in the second quarter of 2022.
- The facility is expected to yield approximately 800 PH/s.

The Bunker: 48 MW Facility expected to deliver 1,300 PH/s

- Construction, expected to be completed in mid-2022, will be in three phases:
 - Phase one, representing 18 MW to be installed in an already constructed building, is scheduled to begin internal infrastructure work in the fourth quarter of 2021.
 - Phase two, representing 18 MW, is in a portion of the building still under construction, with internal infrastructure work to begin in the first quarter of 2022.
 - Phase three, representing 12 MW, is in a portion of the building scheduled to be constructed in the second quarter of 2022.
- 13,000 miners are expected to be housed in The Bunker and generate about 1.3 EH/s.
 - The first two phases are expected to hold over 9,750 miners and yield nearly 975 PH/s.
 - The third phase is expected to hold another 3,250 miners and produce approximately 325 PH/s.

About Bitfarms Ltd.

Founded in 2017, Bitfarms is a Bitcoin mining company, running vertically integrated mining operations with onsite technical repair, proprietary data analytics and Company-owned electrical engineering and installation services to deliver high operational performance and uptime.

Having demonstrated rapid growth and stellar operations, Bitfarms became the first Bitcoin mining company to complete its long form prospectus with the Ontario Securities Commission and started trading on the TSX-V in July 2019. On February 24, 2021, Bitfarms was honoured to be announced as a Rising Star by the TSX-V. On June 21, 2021, Bitfarms started trading on the Nasdaq Stock Market.

Bitfarms has a diversified production platform with five industrial scale facilities located in Québec. Each facility is over 99% powered with environmentally friendly hydro power and secured with long-term power contracts. In addition, Bitfarms has announced new high power production facilities will be built in Québec, Paraguay, and Argentina. Bitfarms is currently the only publicly traded pure-play mining company audited by a Big Four audit firm.

To learn more about Bitfarms' events, developments, and online communities:

Website: www.bitfarms.com

<https://www.facebook.com/bitfarms/>

https://twitter.com/Bitfarms_io

<https://www.instagram.com/bitfarms/> <https://www.linkedin.com/company/bitfarms/>

Defined Terms

MW – Megawatt - A megawatt is a unit for measuring power that is equivalent to one million watts.

PH – Petahash per second. One petahash per second is one quadrillion (1,000,000,000,000,000) hashes per second (a measure of the speed of cryptocurrency mining operations).

EX – Exahash per second. One exahash per second is one quintillion (1,000,000,000,000,000,000) hashes per second.

Cautionary Statement

Trading in the securities of the Company should be considered highly speculative. No stock exchange, securities commission or other regulatory authority has approved or disapproved the information contained herein. Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange), Nasdaq, or any other securities exchange or regulatory authority accepts responsibility for the adequacy or accuracy of this release.

Forward-Looking Statements

This news release contains certain “forward-looking information” and “forward-looking statements” (collectively, “forward-looking information”) that are based on expectations, estimates and projections as at the date of this news release. The information in this release regarding expectations for the construction, power, capacity and yields of the Company’s new Sherbrooke production facilities, anticipated mining capacity, hydroelectricity costs and about other future plans and objectives of the Company are forward-looking information. Other forward-looking information includes, but is not limited to, information concerning: the intentions, plans and future actions of the Company, as well as Bitfarms’ ability to successfully mine digital currency, revenue increasing as currently anticipated, the ability to profitably liquidate current and future digital currency inventory, volatility of network difficulty and digital currency prices and the potential resulting significant negative impact on the Company’s operations, the construction and operation of expanded blockchain infrastructure as currently planned, and the regulatory environment for cryptocurrency in the applicable jurisdictions.

Any statements that involve discussions with respect to predictions, expectations, beliefs, plans, projections, objectives, assumptions, future events or performance (often but not always using phrases such as “expects”, or “does not expect”, “is expected”, “anticipates” or “does not anticipate”, “plans”, “budget”, “scheduled”, “forecasts”, “estimates”, “believes” or “intends” or variations of such words and phrases or stating that certain actions, events or results “may” or “could”, “would”, “might” or “will” be taken to occur or be achieved) are not statements of historical fact and may be forward-looking information and are intended to identify forward- looking information.

This forward-looking information is based on assumptions and estimates of management of the Company at the time they were made, and involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, risks relating to: facility construction delays, the global economic climate; dilution; the Company's limited operating history; future capital needs and uncertainty of additional financing including the Company's ability to utilize the Company's at-the-market offering (the "ATM Program") and the prices at which the Company may sell Common Shares in the ATM Program as well as capital market conditions in general; the competitive nature of the industry; currency exchange risks; the need for the Company to manage its planned growth and expansion; the effects of product development and need for continued technology change; protection of proprietary rights; the effect of government regulation and compliance on the Company and the industry; network security risks; the ability of the Company to maintain properly working systems; reliance on key personnel; global economic and financial market deterioration impeding access to capital or increasing the cost of capital; dilution in relation to the ATM Program and from other equity issuances; and volatile securities markets impacting security pricing unrelated to operating performance. In addition, particular factors that could impact future results of the business of Bitfarms include, but are not limited to: the construction and operation of blockchain infrastructure may not occur as currently planned, or at all; expansion may not materialize as currently anticipated, or at all; the digital currency market; the ability to successfully mine digital currency; revenue may not increase as currently anticipated, or at all; it may not be possible to profitably liquidate the current digital currency inventory, or at all; a decline in digital currency prices may have a significant negative impact on operations; an increase in network difficulty may have a significant negative impact on operations; the volatility of digital currency prices; the anticipated growth and sustainability of hydroelectricity for the purposes of cryptocurrency mining in the applicable jurisdictions, the ability to complete current and future financings, any regulations or laws that will prevent Bitfarms from operating its business; historical prices of digital currencies and the ability to mine digital currencies that will be consistent with historical prices; an inability to predict and counteract the effects of COVID-19 on the business of the Company, including but not limited to the effects of COVID-19 on the price of digital currencies, capital market conditions, restriction on labour and international travel and supply chains; and, the adoption or expansion of any regulation or law that will prevent Bitfarms from operating its business, or make it more costly to do so. For further information concerning these and other risks and uncertainties, refer to the Company's filings on www.SEDAR.com including the annual information form for the year ended December 31, 2020, filed on April 7, 2021. The Company has also assumed that no significant events occur outside of Bitfarms' normal course of business. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those expressed in forward-looking statements, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on any forward-looking information. The Company undertakes no obligation to revise or update any forward-looking information other than as required by law.

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