

GREENIDGE GENERATION HOLDINGS INC.

3,500,000 Shares of Class A Common Stock

This prospectus supplement further supplements and updates the prospectus dated October 6, 2021 (as may be supplemented or amended from time to time, the "Prospectus") relating to the resale of 3,500,000 shares of our Class A common stock, \$0.0001 par value per share ("Class A common stock"). This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

This prospectus supplement incorporates into the Prospectus the information contained in our attached:

• Current Report on Form 8-K, which was filed with the Securities and Exchange Commission on October 21, 2021.

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "GREE". On October 21, 2021, the closing price of our Class A common stock was \$21.88.

See the section entitled "Risk Factors" beginning on page 17 of the Prospectus to read about factors you should consider before buying our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying Prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is October 21, 2021.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 21, 2021

GREENIDGE GENERATION HOLDINGS INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware (State or Other Jurisdiction of Incorporation) 001-40808 (Commission File Number) 86-1746728 (IRS Employer Identification No.)

590 Plant Road Dresden, NY (Address of Principal Executive Offices)

14441 (Zip Code)

Registrant's telephone number, including area code: (315) 536-2359

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Dere-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Name of each exchange on which registered
Class A Common Stock, par value \$0.0001 per	GREE	Nasdaq Global Select Market
share		
8.50% Senior Notes due 2026	GREEL	Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934:

Emerging growth company imes

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 1.01 Entry into a Material Definitive Agreement

On October 21, 2021, a subsidiary of Greenidge Generation Holdings Inc. ("Greenidge") entered into a Purchase and Sale Agreement (the "LSC Agreement") with a subsidiary of LSC Communications, Inc. ("LSC"), a Delaware corporation, pursuant to which Greenidge has agreed to purchase from LSC two parcels of land containing approximately 175,000 acres of land located in Spartanburg, South Carolina, including over 750,000 square feet of industrial buildings (the "Property"). As previously disclosed, LSC is a portfolio company of private investment funds managed by Atlas Holdings LLC ("Atlas"). Greenidge's controlling shareholder consists of certain funds associated with Atlas.

The purchase price of the Property is \$15.0 million (the "Purchase Price"). Under the terms of the LSC Agreement, Greenidge has deposited \$2.5 million in escrow, with such amount to be applied at closing to the Purchase Price. The transaction is expected to close in early December 2021. The LSC Agreement contains customary representations, warranties and covenants of the parties and closing conditions as well as other customary provisions. Greenidge expects to finance the Purchase Price with cash on hand.

The foregoing summary of the terms of the LSC Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the LSC Agreement, which will be filed as an exhibit to Greenidge's periodic report for the corresponding period.

Item 7.01 Regulation FD Disclosure

On October 21, 2021, Greenidge issued a press release announcing certain operational updates. A copy of the press release is attached as Exhibit 99.1 to this report and is incorporated herein by reference.

This information is furnished pursuant to Item 7.01 of Form 8-K and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that section, unless we specifically incorporate it by reference in a document filed under the Securities Act of 1933, as amended or the Securities Exchange Act of 1934, as amended.

Item 8.01 Other Events

Greenidge also announced today it has entered into exclusive agreements regarding the potential construction of new data centers in Texas. Greenidge's exclusive agreement with a developer for multiple sites in Texas (the "Texas Development Sites") includes at least six sites in the pipeline that Greenidge and the developer have identified as potential locations for Greenidge data centers. In total, the Texas Development Sites have over 2,000MW of electrical capacity and include several locations surrounded by abundant wind and solar power generation. Additionally, Greenidge has entered into an agreement giving it an exclusive right of first refusal at multiple power generation sites comprising over 1,000MW of power generation assets in the ERCOT market (the "Texas Generation Sites"). The agreement gives Greenidge the exclusive right of first refusal to develop data centers at any current or future power generation sites controlled by the counterparty in the ERCOT market until January, 2023.

Together, the Texas Development Sites, the Texas Generation Sites and the Property have over 3,000MW of combined electrical capacity. Greenidge now anticipates that it will have electrical capacity for over 500MW by 2023. Greenidge plans to continue to offset 100% of the carbon emissions associated with its mining operations at all current and future locations. Greenidge currently operates 45MW of mining capacity at its existing site in Dresden, New York and expects to continue to operate the facility. The expansion plans announced today, once developed, would provide Greenidge with the redundancy to absorb Dresden's current and planned mining capacity at other locations, if necessary.

Greenidge has more than doubled its recently announced order with Bitmain Technologies from 10,000 S19j Pros to 22,500. It is expected that the units will deliver in the second and third quarters of 2022. In total, Greenidge has approximately 29,000 miners currently on order with Bitmain delivering between now and the third quarter of 2022. Once deployed, these miners would bring Greenidge's total mining capacity to approximately 44,950 miners representing 4.1Eh/s and 130MW of capacity.

Support.com, a wholly-owned subsidiary of Greenidge, agreed with a subsidiary of Comcast Corporation to terminate its contract to provide support services to Comcast (the "Comcast Contract") effective in the first quarter of 2022. The Comcast Contract represented approximately \$2 million and \$5 million of Support.com's revenue for the three and six months ended June 30, 2021, respectively. Support.com's operating income from the Comcast Contract for each of the aforementioned periods was negative.

Cautionary Language regarding Forward-Looking Statements

This Form 8-K includes certain statements that may constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical fact are forward-looking statements for purposes of federal and state securities laws. These forward-looking statements involve uncertainties that could significantly affect Greenidge's financial or operating results. These forward-looking statements may be identified by terms such as "anticipate," "believe," "continue," "foresee," "expect," "intend," "plan," "may," "will," "would," "could," and "should," and the negative of these terms or other similar expressions. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Forward-looking statements in this Form 8-K include, among other things, statements regarding the business plan, business strategy and operations of Greenidge in the future. In addition, all statements that

address operating performance and future performance, events or developments that are expected or anticipated to occur in the future, such as statements concerning (i) the consummation of the arrangements related to the Texas Development Sites and the Texas Generation Sites and the definitive agreement with LSC, (ii) the ability to continue operations at Greenidge's Dresden, New York facility, (iii) the delivery of miners currently on order with Bitmain (iv) future electrical capacity, (v) the ability to offset carbon emissions and (vi) the ability to obtain future debt or equity financing, are forwardlooking statements. Forward-looking statements are subject to a number of risks, uncertainties and assumptions. Matters and factors that could cause actual results to differ materially from those expressed or implied in such forward-looking statements include but are not limited to the matters and factors described in Part II, Item 1A. "Risk Factors" of Greenidge's Quarterly Reports on Form 10-O, and its other filings with the Securities and Exchange Commission, as well as statements about or relating to or otherwise affected by: (i) the ability to negotiate or execute definitive documentation with respect to the Texas Development Sites and the Texas Generation Sites on terms and conditions that are acceptable to Greenidge, whether on a timely basis or at all; (ii) the ability to close on and recognize the anticipated objectives and benefits of an expansion into the Texas Development Sites, the Texas Generation Sites and the LSC facility; (iii) the ability to recognize the anticipated objectives and any benefits, including the anticipated tax treatment, of the acquisition of Support.com; (iv) changes in applicable laws, regulations or permits affecting Greenidge's operations or the industries in which it operates, including regulation regarding power generation, cryptocurrency usage and/or cryptocurrency mining; (v) any failure to obtain adequate financing on a timely basis and on acceptable terms with regard to growth strategies or operations; (vi) fluctuations in the market pricing of bitcoin and other cryptocurrencies; (vii) loss of public confidence in, or use cases of, bitcoin and other cryptocurrencies; (viii) the potential of cryptocurrency market manipulation; (x) the economics of mining cryptocurrency, including as to variables or factors affecting the cost, efficiency and profitability of mining; (xi) the availability, delivery schedule and cost of equipment necessary to maintain and grow the business and operations of Greenidge, including mining equipment and equipment meeting the technical or other specifications required to achieve Greenidge's growth strategy, (xii) the possibility that Greenidge may be adversely affected by other economic, business or competitive factors, including factors affecting the industries in which it operates or upon which it relies and is dependent; (xiii) the ability to expand successfully to other facilities, mine other cryptocurrencies or otherwise expand the business; (xiv) changes in tax regulations applicable to Greenidge, its assets or cryptocurrencies, including bitcoin; (xv) any litigation involving Greenidge; (xvi) costs and expenses relating to cryptocurrency transaction fees and fluctuation in cryptocurrency transaction fees; (xvii) the condition of Greenidge's physical assets, including that Greenidge's current single operating facility may realize material, if not total, loss and interference as a result of equipment malfunction or break-down, physical disaster, data security breach, computer malfunction or sabotage; and (xix) the actual and potential economic fallout resulting from the COVID-19 pandemic. Consequently, all of the forwardlooking statements made in this Form 8-K are qualified by the information contained under this caption. No assurance can be given that these are all of the factors that could cause actual results to vary materially from the forward-looking statements in this Form 8-K. You should not put undue reliance on forward-looking statements. No assurances can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do occur, the actual results, performance, or achievements of Greenidge could differ materially from the results expressed in, or implied by, any forward-looking statements. All forward-looking statements speak only as of the date of this

Form 8-K and Greenidge does not assume any duty to update or revise any forward-looking statements included in this Form 8-K, whether as a result of new information, the occurrence of future events, uncertainties or otherwise, after the date of this Form 8-K.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.	Description
99.1	Press Release, dated October 21, 2021
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

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, hereunto duly authorized.

Dated: October 21, 2021

GREENIDGE GENERATION HOLDINGS INC.

By: /s/ Jeffrey E. Kirt

Jeffrey E. Kirt Chief Executive Officer



Greenidge Generation Announces Comprehensive Expansion Plans

Company to Expand Outside State of New York While Maintaining Carbon Neutrality

Upsized previously announced Bitmain order from 10,000 to 22,500 units

Evaluating multiple additional sites with over 2,000MW of electrical capacity in exclusive agreement with developer in Texas

> Entered into exclusive agreement with company controlling over 1,000MW of power generation assets in Texas

Purchasing 175-acre site in Spartanburg, SC with over 750k square feet of industrial buildings

DRESDEN, N.Y. – October 21, 2021 – Greenidge Generation Holdings Inc. (NASDAQ: GREE) ("Greenidge") today announced new details regarding its plans to significantly expand beyond its current site in the State of New York.

To achieve this expansion, Greenidge has more than doubled its recent order with Bitmain to 22,500 units; entered into an exclusive agreement with a developer with a development pipeline of at least 2,000MW of capacity in Texas; entered into a separate exclusive agreement with a company controlling over 1,000MW of power generation assets in Texas; and signed a definitive agreement to acquire a 175-acre site in South Carolina.

"Our recent senior notes offering has provided us with the liquidity to advance a number of strategic growth initiatives," said Greenidge's CEO Jeff Kirt. "Increasing our order with Bitmain brings our current and committed miner capacity to over 130MW and 4.1 EH/s delivering in the next 12 months. Additionally, the site development efforts we announced today are consistent with our plans to expand to new locations in North America. Operating multiple sites in our portfolio will allow us the flexibility to reposition assets in order to maximize operating cash flow and provide operational redundancy, if required."

Greenidge is evaluating over 3,000MW of options in the Texas and South Carolina markets to determine the most attractive locations to develop. The Company expects to deploy substantially all of the 22,500 miners ordered from Bitmain in the last six weeks at one or more of these locations.

Upsized Bitmain Order

Greenidge has more than doubled its recently announced order with Bitmain from 10,000 S19j Pros to 22,500. The units will deliver in the second and third quarters of 2022. In total, Greenidge has approximately 29,000 miners currently on order with Bitmain delivering between now and the third quarter of 2022. Once deployed, these miners would bring Greenidge's total mining capacity to approximately 44,950 miners representing 4.1EH/s and 130MW of capacity.

New Site Opportunities in Texas and South Carolina

Greenidge also announced today it has entered into exclusive agreements regarding the potential construction of new data centers in Texas.

Greenidge's exclusive agreement with a developer for multiple sites in Texas (the "Texas Development Sites") includes at least six sites in the pipeline that Greenidge and the developer have identified as potential locations for Greenidge data centers. In total, the Texas Development Sites have over 2,000MW of electrical capacity and include several locations surrounded by abundant wind and solar power generation.

Additionally, Greenidge has entered into an agreement giving it an exclusive right of first refusal at multiple power generation sites comprising over 1,000MW of power generation assets in the ERCOT market (the "Texas Generation Sites"). The agreement gives Greenidge the exclusive right of first refusal to develop data centers at any current or future power generation sites controlled by the counterparty in the ERCOT market until January 2023.

In South Carolina, Greenidge has signed a definitive agreement with a subsidiary of LSC Communications ("LSC") to purchase LSC's facility in Spartanburg, SC. The transaction is structured as an outright purchase of the site from LSC rather than a lease, as was previously contemplated and announced in July 2021. The purchase price for the 175-acre site, including over 750,000 square feet of industrial buildings, is \$15 million. The transaction is expected to close in early December 2021.

Together, the Texas Development Sites, the Texas Generation Sites and the South Carolina site have over 3,000MW of combined electrical capacity. Greenidge now anticipates that it will have electrical capacity for over 500MW by 2023. Greenidge plans to continue to offset 100% of the carbon emissions associated with its mining operations at all current and future locations.

Greenidge currently operates 45MW of mining capacity at its existing site in Dresden, NY and expects to continue to operate the facility. The expansion plans announced today, once developed, would provide Greenidge with the redundancy to absorb Dresden's current and planned mining capacity at other locations, if necessary.

Capital Structure

Greenidge intends to finance its expansion plans with cash on hand, including the proceeds of its recent \$55.2 million senior notes offering, as well as operating cash flow. Additional debt and/or equity financing could contribute to further expansion or to the acceleration of the expected timeframe of expansion.

Separately, in response to investor inquiry, the company is providing clarification regarding certain topics pertaining to its Common Equity:

As previously disclosed, in September, Greenidge announced it had entered into an equity purchase agreement with B. Riley Principal Capital, LLC and filed a Form S-1 Registration Statement (the "Equity Purchase S-1") with the Securities and Exchange Commission relating to the equity purchase agreement. The maximum number of shares that Greenidge can sell pursuant to the Equity Purchase S-1 is 3.5 million, which would increase the number of Greenidge's outstanding shares of Class A and Class B Common Stock from approximately 38.7 million shares as of October 1, 2021, to 42.2 million shares, an increase of 9.0%.

Additionally, Greenidge is clarifying that its controlling shareholder, which consists of certain funds associated with Atlas Holdings LLC ("Atlas Funds"), has not sold any of its shares of Greenidge Common Stock to date. Following Greenidge's 4:1 stock split in January 2021, Atlas Funds' holdings of Greenidge Common Stock have remained at approximately 26.8 million shares of Class B Common Stock.

Atlas Funds' holdings of Greenidge Common Stock are subject to Form 4 filing requirements with the SEC. As such, any sales by Atlas Funds of Greenidge Common Stock are required to be reported on Form 4.

As previously disclosed, LSC is a portfolio company of private investment funds managed by Atlas Holdings LLC.

About Greenidge Generation Holdings Inc.

Greenidge Generation Holdings Inc. (NASDAQ: GREE) is a vertically integrated bitcoin mining and power generation company. Greenidge is committed to 100% carbon-neutral bitcoin mining at all of its locations by utilizing low-carbon sources of energy and offsetting its carbon footprint. Greenidge currently operates one facility in upstate New York and plans to expand operations to multiple locations in North America. Support.com, a Greenidge subsidiary, is a leading provider of customer and technical support solutions delivered by home-based employees.

Forward-Looking Statements

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"will," "would," "could," and "should," and the negative of these terms or other similar expressions. Forward-looking statements are based on current beliefs and assumptions that are subject to risks and uncertainties and are not guarantees of future performance. Forward-looking statements in this press release include, among other things, statements regarding the business plan, business strategy and operations of Greenidge in the future. In addition, all statements that address operating performance and future performance, events or developments that are expected or anticipated to occur in the future, such as statements concerning (i) the consummation of the arrangements related to the Texas Development Sites and the Texas Generation Sites and the definitive agreement with LSC, (ii) the ability to continue operations at Greenidge's Dresden, New York facility, (iii) the delivery of miners currently on order with Bitmain (iv) future electrical capacity, (v) the ability to offset carbon emissions and (vi) the ability to obtain future debt or equity financing, are forward-looking statements. Forward-looking statements are subject to a number of risks, uncertainties and assumptions. Matters and factors that could cause actual results to differ materially from those expressed or implied in such forward-looking statements include but are not limited to the matters and factors described in Part II, Item 1A. "Risk Factors" of Greenidge's Quarterly Reports on Form 10-Q, and its other filings with the Securities and Exchange Commission, as well as statements about or relating to or otherwise affected by: (i) the ability to negotiate or execute definitive documentation with respect to the Texas Development Sites and the Texas Generation Sites on terms and conditions that are acceptable to Greenidge, whether on a timely basis or at all; (ii) the ability to close on and recognize the anticipated objectives and benefits of an expansion into the Texas Development Sites, the Texas Generation Sites and the LSC facility; (iii) the ability to recognize the anticipated objectives and any benefits, including the anticipated tax treatment, of the acquisition of Support.com; (iv) changes in applicable laws, regulations or permits affecting Greenidge's operations or the industries in which it operates, including regulation regarding power generation, cryptocurrency usage and/or cryptocurrency mining; (v) any failure to obtain adequate financing on a timely basis and on acceptable terms with regard to growth strategies or operations; (vi) fluctuations in the market pricing of bitcoin and other cryptocurrencies; (vii) loss of public confidence in, or use cases of, bitcoin and other cryptocurrencies; (viii) the potential of cryptocurrency market manipulation; (x) the economics of mining cryptocurrency, including as to variables or factors affecting the cost, efficiency and profitability of mining; (xi) the availability, delivery schedule and cost of equipment necessary to maintain and grow the business and operations of Greenidge, including mining equipment and equipment meeting the technical or other specifications required to achieve Greenidge's growth strategy, (xii) the possibility that Greenidge may be adversely affected by other economic, business or competitive factors, including factors affecting the industries in which it operates or upon which it relies and is dependent; (xiii) the ability to expand successfully to other facilities, mine other cryptocurrencies or otherwise expand the business; (xiv) changes in tax regulations applicable to Greenidge, its assets or cryptocurrencies, including bitcoin; (xv) any litigation involving Greenidge; (xvi) costs and expenses relating to cryptocurrency transaction fees and fluctuation in cryptocurrency transaction fees; (xvii) the condition of Greenidge's physical assets, including that Greenidge's current single operating facility may realize material, if not total, loss and interference as a result of equipment malfunction or break-down, physical disaster, data security breach, computer malfunction or sabotage; and (xix) the actual and potential economic fallout resulting from the COVID-19 pandemic. Consequently, all of the forwardlooking statements made in this press release are qualified by the information contained under this caption. No assurance can be given that these are all of the factors that could cause actual

results to vary materially from the forward-looking statements in this press release. You should not put undue reliance on forward-looking statements. No assurances can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do occur, the actual results, performance, or achievements of Greenidge could differ materially from the results expressed in, or implied by, any forward-looking statements. All forward-looking statements speak only as of the date of this press release and Greenidge does not assume any duty to update or revise any forward-looking statements included in this press release, whether as a result of new information, the occurrence of future events, uncertainties or otherwise, after the date of this press release.