

GREENIDGE GENERATION HOLDINGS INC.

10,458,474 Shares of Class A Common Stock

This prospectus supplement further supplements and updates the prospectus dated September 14, 2021 (as may be supplemented or amended from time to time, the "Prospectus") relating to the resale of 10,458,474 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 December 30, 2021.

Our Class A common stock is listed on the Nasdaq Global Select Market under the symbol "GREE". On December 30, 2021, the closing price of our Class A common stock was \$16.90.

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 December 30, 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): December 28, 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))

Pre-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 \boxtimes

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 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On December 28, 2021, Greenidge Generation Holdings Inc. (the "Company") determined to accelerate the vesting of restricted stock units ("RSUs") granted to Jeffrey Kirt, originally vesting on March 8, 2022, such that the RSUs vested on December 28, 2021, subject to clawback and offset against any other amount due and payable to Mr. Kirt if the RSUs would not otherwise have vested on March 8, 2022 in accordance with the RSU Award Agreement, dated March 8, 2021, between Mr. Kirt and the Company.

Signature(s)

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: December 30, 2021

GREENIDGE GENERATION HOLDINGS INC.

By: /s/ Jeffrey E. Kirt

Jeffrey E. Kirt Chief Executive Officer