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 2024

Commission file number: 001-41334

RAIL VISION LTD.
(Translation of registrant's name into English)

15 Ha'Tidhar St
Ra'anana, 4366517 Israel
(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 ☐

CONTENTS

Attached hereto and incorporated herein is the Registrant's press release issued on October 9, 2024, titled "Rail Vision Announces $20 Million Standby Equity Purchase Agreement."

The first, second and fourth ~~third~~ paragraphs in the press release attached as Exhibit 99.1 are incorporated by reference into the Registrant's Registration Statements on Form F-3 (File Nos. 333-271068 and 333-272933) and Form S-8 (File Nos. 333-265968 and 333-281329), filed with the Securities and Exchange Commission, to be a part thereof from the date on which this report is submitted, to the extent not superseded by documents or reports subsequently filed or furnished.

EXHIBIT INDEX

SIGNATURES

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.

Rail Vision Ltd.

Date: October 9, 2024

By: /s/ Ofer Naveh

Name: Ofer Naveh

Title: Chief Financial Officer

Exhibit 99.1

Rail Vision Announces $20 Million Standby Equity Purchase Agreement

*Securing this strategic financial partnership will support Rail Vision's expected
market expansion, growth initiatives and financial requirements*

Ra'anana, Israel, Oct. 09, 2024 (GLOBE NEWSWIRE) -- Rail Vision Ltd. (Nasdaq: RVSN) (the "Company"), a technology company at the forefront of revolutionizing railway safety and the data-related market, announced that it has entered into a Standby Equity Purchase Agreement (the "SEPA"), with YA II PN, Ltd. ("Yorkville"), a fund managed by Yorkville Advisors Global, LP. Pursuant to the terms of the SEPA, the Company has the right, but not the obligation, to sell to Yorkville up to $20 million (the "Commitment Amount"), of the Company's ordinary shares at any time during the three-year period following the execution date of the SEPA, subject to the restrictions and satisfaction of the conditions in the SEPA. The purchase price of the ordinary shares sold to Yorkville will be at a 3% discount of the lowest daily volume weighted average price of the Company's ordinary shares during the three consecutive trading day period commencing on the trading day of the delivery of an advance notice by the Company.

The Company is not obligated to utilize any of the $20 million available under the SEPA and there are no minimum commitments or minimum use penalties. The SEPA does not impose any restrictions on the Company's operating activities.

"This strategic financial partnership provides Rail Vision with the flexibility to support our ongoing operations and accelerate our growth initiatives," said Shahar Hania, CEO of Rail Vision. "The SEPA gives us access to significant additional capital, allowing us to focus on executing our vision to revolutionize railway safety and efficiency through our cutting-edge AI-based technology. By leveraging this financial support, we believe that we can enhance our ability to scale, innovate and capture additional market share in the global railway safety industry."

The securities described herein have not been registered under the Securities Act of 1933, as amended, and may not be sold in the United States absent registration or an applicable exemption from the registration requirements. This press release shall not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of these securities in any state or other jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or other jurisdiction.

About Rail Vision Ltd.

Rail Vision is a technology company that is seeking to revolutionize railway safety and the data-related market. The Company has developed cutting-edge, artificial intelligence-based, industry-leading technology specifically designed for railways. The Company has developed its railway detection and systems to save lives, increase efficiency, and dramatically reduce expenses for the railway operators. Rail Vision believes that its technology will significantly increase railway safety around the world, while creating significant benefits and adding value to everyone who relies on the train ecosystem: from passengers using trains for transportation to companies that use railways to deliver goods and services. In addition, the company believes that its technology has the potential to advance the revolutionary concept of autonomous trains into a practical reality. For more information, please visit https://www.railvision.io/

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act and other securities laws. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements. For example, the Company is using forward-looking statements when it discusses that the Company has the right, but not the obligation, to sell to Yorkville up to $20 million, of the Company's ordinary shares at any time during the three-year period following the execution date of the SEPA, subject to the restrictions and satisfaction of the conditions in the SEPA, how this strategic financial partnership provides Rail Vision with the flexibility to support its ongoing operations and accelerate its growth initiatives, its vision to revolutionize railway safety and efficiency through our cutting-edge AI-based technology and its belief that the financial support provided by the SEPA can enhance its ability to scale, innovate and capture additional market share in the global railway safety industry. Forward-looking statements are not historical facts, and are based upon management's current expectations, beliefs and projections, many of which, by their nature, are inherently uncertain. Such expectations, beliefs and projections are expressed in good faith. However, there can be no assurance that management's expectations, beliefs and projections will be achieved, and actual results may differ materially from what is expressed in or indicated by the forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the forward-looking statements. For a more detailed description of the risks and uncertainties affecting the Company, reference is made to the Company's reports filed from time to time with the Securities and Exchange Commission ("SEC"), including, but not limited to, the risks detailed in the Company's annual report on Form 20-F filed with the SEC on March 28, 2024. Forward-looking statements speak only as of the date the statements are made. The Company assumes no obligation to update forward-looking statements to reflect actual results, subsequent events or circumstances, changes in assumptions or changes in other factors affecting forward-looking information except to the extent required by applicable securities laws. If the Company does update one or more forward-looking statements, no inference should be drawn that the Company will make additional updates with respect thereto or with respect to other forward-looking statements. References and links to websites have been provided as a convenience, and the information contained on such websites is not incorporated by reference into this press release. Rail Vision is not responsible for the contents of third-party websites.

Investor Relations

Michal Efraty
investors@railvision.io