
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, DC 20549

FORM 6-K

**REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16 OF
THE SECURITIES EXCHANGE ACT OF 1934**

May 14, 2014

Commission File No.: 000-30668

NOVA MEASURING INSTRUMENTS LTD.

(Translation of registrant's name into English)

**Building 22 Weizmann Science Park, Rehovot
P.O.B 266
Israel**

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover 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): ____

Attached hereto and incorporated by way of reference herein is a convenience translation into English of a notice published by the Registrant on May 14, 2014 in two daily Israeli newspapers and entitled "Notice of Annual General Meeting of Shareholders". The attached notice was published pursuant to the requirements of the Israeli law, and the original version of the notice is in Hebrew. The foregoing document is attached for information purposes only and does not constitute a proxy solicitation on behalf of the Registrant. The Registrant's proxy solicitation materials for distribution in the United States will be furnished separately on or about May 22, 2014.

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.

NOVA MEASURING INSTRUMENTS LTD.
(Registrant)

By: */s/ Dror David*

Dror David
Chief Financial Officer

Date: May 14, 2014

NOVA MEASURING INSTRUMENTS LTD.

**Company No. 51-181246-3
(the "Company")**

Weizmann Science Park, Building 22, Einstein St., Ness Ziona, Israel.

NOTICE OF ANNUAL GENERAL MEETING OF SHAREHOLDERS

Notice is hereby given that the annual general meeting of shareholders of the Company (the "Meeting") will be held on **Tuesday, June 24, 2014 at 5:00 p.m. Israel time**, at the Company's offices, located at Weizmann Science Park, Building 22, Einstein St., Ness Ziona, Israel.

The agenda of the Meeting shall be as follows:

1. Approval and ratification of the re-appointment of Brightman Almagor Zohar & Co., a member of Deloitte Touche Tohmatsu, as the independent auditors of the Company for the period ending at the close of the next annual general meeting;
2. Approval of amendments to the employment terms of Mr. Eitan Oppenheim, the President and Chief Executive Officer of the Company;
3. Re-election of each of Messrs. Michael Brunstein, Alon Dumanis, Avi Cohen and Raanan Cohen as a director of the Company to hold office until the close of the next annual general meeting; and
4. Election of Ms. Zehava Simon as an external director of the Company.

In addition, the shareholders will be requested to consider at the Meeting the Company's audited consolidated financial statements for the year ended December 31, 2013.

Only holders of record at the close of business on **Monday, May 19, 2014** are entitled to receive notice of, and to vote at, the Meeting.

Position Statements should be submitted to the Company no later than **Thursday, May 29, 2014**.

A duly executed proxy must be received no later than **Monday, June 23, 2014 at 7:00 p.m., Israel time**.

The report with respect to convening the meeting will be available to the public through the Magna website at <http://www.magna.isa.gov.il>.

Nova Measuring Instruments Ltd.
