

NOVA MEASURING INSTRUMENTS LTD

Form 6-K

October 26, 2006

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
of the Securities Exchange Act of 1934

Date of Report: October 26, 2006
Commission File No.: 000-30688

NOVA MEASURING INSTRUMENTS LTD.

Building 22 Weitzmann Science Park, Rehovoth
P.O.B 266
Israel

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 whether the registrant is submitting this Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): _____

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to 12g3-2(b) under the Securities Exchange Act of 1934.

Yes No

If Yes is marked, indicate below the file number assigned to the registrant in connection with 12g3-2(b):N/A.

EXPLANATORY NOTE

On October 26, 2006, Nova Measuring Instruments Ltd. (the Registrant) published a notice in two daily Israeli newspapers entitled Notice of Extraordinary General Meeting of Shareholders. The Notice of Extraordinary General Meeting was published pursuant to the requirements of Israeli law, and the original version of the notice is in Hebrew.

English translations of the foregoing document is attached to this Form 6-K as Exhibits 99.1 and incorporated herein by reference. The foregoing document is attached for information purposes only and do not constitute proxy solicitation on behalf of the Registrant. The Registrant's proxy solicitation materials for distribution in the United States are being furnished under cover of a separate 6-K on this date. The Registrant's shareholders are directed to those materials for information regarding the Registrant's Extraordinary General Meeting, voting procedures and related matters.

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.
(the "Registrant")

Date: October 26, 2006

By: /s/ Dror David

Dror David
Chief Financial Officer

Exhibit Index

99.1 Notice of Extraordinary General Meeting (English translation)
