

NOVA MEASURING INSTRUMENTS LTD  
Form 6-K  
July 27, 2006

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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

For July 27, 2006

Commission File No. 000-30668

**NOVA MEASURING INSTRUMENTS LTD.**

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

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)

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 Rule 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 Rule 12g3-2(b): N/A.

EXPLANATORY NOTE

On July 27, 2006, Nova Measuring Instruments Ltd. (the Registrant): (i) issued a press release in Israel entitled Notice of Annual General Meeting; and (ii) filed with the Tel Aviv Stock Exchange (the TASE) a form of proxy voting card for use in connection with the Annual General Meeting of the Registrant's shareholders scheduled for August 31, 2006. Both the Notice of Annual General Meeting and proxy voting card were filed or issued pursuant to the requirements of Israeli law, and the original versions of each are in Hebrew.

English translations of the two foregoing documents are attached to this Form 6-K as Exhibits 99.1 and 99.2 respectively and incorporated herein by reference. The foregoing documents are 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 Annual 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")

July 27, 2006

By: /s/ Dror David

Dror David  
Chief Financial Officer

Exhibit Index

99.1 Notice of Annual General Meeting (English translation)  
99.2 Proxy Card (English translation)

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