

Genesis Lease LTD
Form 425
February 23, 2010

Filed by Genesis Lease Limited
Pursuant to Rule 425 under the Securities Act of 1933, as amended
Subject Company: Genesis Lease Limited
Exchange Act Commission File No: 1-33200

The following letter was mailed to Genesis Lease Limited shareholders on February 23, 2010, in connection with the Agreement and Plan of Amalgamation, dated as of September 17, 2009, among AerCap Holdings N.V., Genesis Lease Limited and AerCap International Bermuda Limited.

IMPORTANT INFORMATION ABOUT THE AERCAP TRANSACTION

In connection with the proposed transaction between Genesis Lease Limited (Genesis) and AerCap Holdings N.V. (AerCap), AerCap filed with the U.S. Securities and Exchange Commission (the SEC) a Registration Statement on Form F-4 on February 2, 2010 that includes a definitive proxy statement of Genesis and a prospectus of AerCap. Genesis mailed the definitive proxy statement/prospectus to its shareholders on or about February 8, 2010, and filed with the SEC the definitive proxy statement/prospectus on Form 6-K on February 9, 2010. **Genesis investors are urged to read the definitive proxy statement/prospectus regarding the proposed transaction, as well as any of the relevant documents concerning the proposed transaction and the companies that AerCap or Genesis files with the SEC (including any amendments or supplements to those documents) because these will contain important information.** You may obtain copies of all documents filed with the SEC regarding this transaction, free of charge, at the SEC s website (<http://www.sec.gov>). These documents may also be obtained free of charge from AerCap s website (<http://www.aercap.com>) under the heading Investor Relations and then under the heading SEC Filings or by directing a request to AerCap s Investor Relations at +31 20 655 9658. Copies of Genesis filings may be obtained free of charge from Genesis website (<http://www.genesislease.com>) under the tab Investor Relations and then under the heading SEC Filings or by directing a request to Genesis proxy solicitor, Innisfree M&A Incorporated, toll-free at 877-687-1871.

This filing does not constitute an offer to sell or the solicitation of an offer to buy any securities, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offering of securities shall be made except by means of a prospectus meeting the requirements of the U.S. Securities Act of 1933, as amended, or an exemption therefrom.

February 23, 2010

Dear Fellow Shareholder:

We have previously sent to you proxy material for the upcoming Special General Meeting of Genesis Lease Limited shareholders. **Your Board of Directors recommends that you vote FOR the proposed share-for-share merger with AerCap Holdings N.V.**

Your vote is important, no matter how many or how few shares you may own. **To ensure that your shares are represented at the meeting, please vote TODAY by telephone, via the Internet, or by marking, signing and returning the enclosed voting instruction card in the envelope provided.**

Very truly yours,

John McMahon

Chairman, President and Chief Executive Officer

IMPORTANT REMINDER:

YOUR VOTING INSTRUCTIONS MUST BE RECEIVED BY

11:59 PM ON MARCH 18, 2010.

**To ensure that your vote is represented at the Special General Meeting,
please vote by telephone, or via the Internet today.**

Simply follow the easy instructions on the enclosed voting instruction card.

If you have any questions, or need assistance in voting
your shares, please call our proxy solicitor,

INNISFREE M&A INCORPORATED

Toll-Free from the US and Canada: 1-877-687-1871

From outside the US: 412-232-3565