Genesis Lease LTD Form 425 February 16, 2010

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The following brochure was mailed to Genesis Lease Limited shareholders on February 16, 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.

GENESIS AND AERCAP: A POWERFUL COMBINATION Your Board of Directors believes this transaction is a unique opportunity to enhance value for Genesis shareholders. Vote FOR owning a stake in what will be the world s leading independent aircraft leasing company by fleet size and value.

IMPORTANT INFORMATION ABOUT THIS TRANSACTION In connection with the proposed transaction between Genesis Lease Limited ( Genesis ) and AerCap Holdings N.V. ( AerCap ), AerCap filed with the SEC a Registration Statement on Form F-4 on February 2, 2010 containing a definitive proxy statement of Genesis and a prospectus of AerCap. This document is not a substitute for the defini-tive proxy statement/prospectus or any other documents Genesis and AerCap have filed or will file with the U.S. Securities and Exchange Commission (the SEC ). 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 . 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 document 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. FORWARD-LOOKING STATEMENTS This document may contain forward-looking information regarding Genesis and AerCap with respect to future performance and events. These statements are intended to be covered by the safe harbor for forward-looking statements provided by the U.S. Private Securities Litigation Reform Act of 1995. In some cases, such forward-looking statements can be identified by the use of forward-looking terminology such as may, might, should, expect, plan, intend, potential or continue or the negatives thereof or variations thereon or estimate. anticipate, believe, predict, similar terminology. All forward-looking statements included in this document are not statements of historical fact but are based on various underlying assumptions and expectations and are subject to known and unknown risks, uncertainties and assumptions, and may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied in any forward-looking statements. As a result, there can be no assurance that any forward-looking statements included in this document will prove to be accurate or correct. In light of these risks, uncertainties and assumptions, the future performance or events described in any forward-looking statements in this document might not occur. Among the factors that could cause actual results to differ materially from those described in any forward-looking statements are factors relating to satisfaction of the conditions in the amalgamation agreement between AerCap and Genesis, AerCap s ability to successfully com bine the businesses of AerCap and Genesis and to realize expected synergies from the combination, and changes in global, political, economic, business, competitive, market and regulatory forces, as well as those factors described under the headings Risk Factors in AerCap s and Genesis respective annual reports on Form 20-F for the year ended December 31, 2008, as filed with the SEC. Copies of such annual reports on Form 20-F are available online at http://www.sec.gov or on request from the applicable company. Except for any obligation to disclose material information under federal securities laws, AerCap and Genesis do not undertake any obligation to, and will not, update any forward-looking statements, whether as a result of new information, future events or otherwise. Accordingly, you should not rely upon forward-looking statements as a prediction of actual results and AerCap and Genesis do not assume any responsibility for the accuracy or completeness of any of these

forward-looking statements.

LETTER TO SHAREHOLDERS Dear Shareholder: n The share-for-share merger implies an approximate 45% premium to Genesis shareholders (based on the Your Board of Directors believes that the proposed share- daily closing prices of Genesis and AerCap shares during for-share merger with AerCap is in your best interests and the 30-day pre-announcement trading period from recommends that you vote FOR the transaction. Because July 30, 2009 to September 11, 2009)1; your vote is very important no matter how many or how few shares you may own we thought it would be helpful to n The combined company should benefit from improved summarize the benefits of the proposed transaction in this quality of earnings, future cost synergies, enhanced short booklet. However, we urge you to also review carefully market reach and customer diversification, the proxy statement/prospectus, including the Risk Factors section, which has been previously mailed to you, since it The combined company will have assets of nearly \$8 billion, contains important information, an enterprise value of over \$6 billion and contracted growth for new, fuel-efficient aircraft, with approximately \$4 billion We believe the proposed merger provides a unique of lease assets under purchase contract. opportunity to enhance shareholder value, advancing your company s most critical strategic and financial A transaction this important cannot happen without your objectives in a single transaction. Consider the following: support. We urge you to take a moment of your time to vote FOR the Amalgamation Proposal today by telephone, by n The merger will create, and Genesis shareholders will own Internet or by signing, dating and returning the enclosed a substantial interest in, the world s leading independent voting instruction card in the envelope provided. aircraft leasing company by fleet size and value, with a strong franchise and broad product offering. Thank you for your continued support. n AerCap s greater scale and contracted order book, nearly all of which has debt financing and lease commitments in place, combined with your company s solid profitability John McMahon and strong cash flows, is expected to provide a stable Chairman and Chief Executive Officer platform for sustainable growth; Genesis Lease Limited 1 The value of the AerCap shares that the Genesis shareholders receive in the transaction will vary as a result of the fixed exchange ratio and possible fluctuations in the price of AerCap shares. You should obtain current market quotations

for AerCap and Genesis. Genesis and AerCap A Powerful Combination 1

<sup>1</sup> The value of the AerCap shares that the Genesis shareholders receive in the transaction will vary as a result of the fixed exchange ratio and possible fluctuations in the price of AerCap shares. You should obtain current market quotations for AerCap and Genesis.

GENESIS/AERCAP A COMPELLING PROPOSITION Significant premium to pre-announcement trading prices The one-to-one share exchange ratio implies an approximate 45% premium to Genesis shareholders based on the daily closing prices of Genesis and AerCap shares during the 30-day trading period from July 30, 2009 to September 11, 2009.1 Genesis shareholders will secure a significant ownership interest in the world s leading independent aircraft leasing company by fleet size and value. 1 The value of the AerCap shares that the Genesis shareholders receive in the transaction will vary as a result of the fixed exchange ratio and possible fluctuations in the price of AerCap shares. You should obtain current market quotations for AerCap and Genesis. 2 Genesis and AerCap A Powerful Combination

<sup>1</sup> The value of the AerCap shares that the Genesis shareholders receive in the transaction will vary as a result of the fixed exchange ratio and possible fluctuations in the price of AerCap shares. You should obtain current market quotations for AerCap and Genesis.

GENESIS/AERCAP A COMPELLING PROPOSITION EXPANDED AIRCRAFT PORTFOLIO1 INCREASED GLOBAL CUSTOMER BASE1 (# OF AIRCRAFT) (# OF AIRLINE CUSTOMERS) GENESIS: 54 GENESIS: 35 AERCAP: 2912 AERCAP: 91 POST MERGER FLEET: 345 POST MERGER CUSTOMERS: 1143 The transaction will merge Genesis current Your company s client base will expand by more portfolio of 54 aircraft with that of AerCap to than 325% worldwide, enhancing customer create a total projected fleet of 345 aircraft distribution and reducing its related risk and with an average age of only 6.6 years. creating new global leasing partnerships. 1 Data as of December 31, 2009. 2 Owned, managed or on order. Includes intended purchase of 10 aircraft from GECAS. 3 Gives effect to overlap in existing customers. Genesis and AerCap A Powerful Combination 3

- Data as of December 31, 2009.
- Owned, managed or on order. Includes intended purchase of 10 aircraft from GECAS.
- <sup>3</sup> Gives effect to overlap in existing customers.

STRENGTH IN A WORLDWIDE MARKET REACH REACHING 49 COUNTRIES WORLDWIDE Belgium Bolivia Brazil Bulgaria Canada China Colombia Czech Republic Ecuador Egypt El Salvador Ethiopia France Germany Greece Hungary Iceland India Indonesia Ireland Israel Italy Jamaica Japan Jordan Kazakhstan Kenya Latvia Mexico Netherlands Norway Pakistan Philippines Poland Portugal Russia South Africa South Korea Spain Taiwan Thailand Trinidad & Tobago Tunisia Turkey Ukraine United Arab Emirates United Kingdom United States Vietnam4 Genesis and AerCap A Powerful Combination

SIGNIFICANT ADVANTAGES NOT AVAILABLE TO EITHER COMPANY ON A STAND-ALONE BASIS: 3 Stronger Capitalization The amalgamated company will have a market capitalization of over \$1.07 billion1 providing Genesis stockholders with significantly enhanced liquidity for their shares. The combined company will have assets of nearly \$8 billion and an enterprise value of over \$6 billion. It will have \$4 billion of lease assets under purchase contract, ensuring further growth with new, fuel-efficient aircraft. 3 Greater Financial and Strategic Flexiblity The complementary nature of Genesis cash flow and AerCap s contracted, placed and term-funded lease asset growth will give the combined company increased financial and strategic flexibility. 3 Significant Cost Savings The combined companies earnings is expected to benefit from cost synergies of approximately \$10 million annually. 3 All-Share Consideration Structure All-share transaction allows both sets of shareholders to benefit from any future market recovery and improves stock liquidity. 1 Based on closing prices on December 31, 2009. Genesis and AerCap A Powerful Combination 5

Based on closing prices on December 31, 2009.

Vote FOR a transaction that your Board of Directors believes represents a unique opportunity to enhance the value of your investment in Genesis. A transaction this important can thappen without your support. Please vote TODAY by telephone, by Internet or by signing and returning the enclosed voting instruction card in the envelope provided. Remember: In order for your shares to be represented at the Special General Meeting, your voting instructions must be received by the Depositary no later than 11:59 PM (New York City time) on March 18, 2010. If you have any questions or need assistance with voting your shares, please call the firm assisting us with the solicitation of proxies: Innisfree M&A Incorporated 877 687-1871 (Toll-free from the US and Canada) +1-412-232-3565 (from other locations) Genesis and AerCap A Powerful Combination 6