AERCAP HOLDINGS N.V.

NOTICE OF THE ANNUAL GENERAL MEETING OF SHAREHOLDERS

Notice is hereby given of the annual general meeting of shareholders of AerCap Holdings N.V., a public limited liability company (naamloze vennootschap) incorporated in the Netherlands with corporate seat in Amsterdam and Dutch trade register number 34251954 (the “Company”) to be held on Wednesday May 12, 2021 at 10:30 a.m. (Amsterdam time) at the Steigenberger Airport Hotel Amsterdam, Stationsplein, ZW 951 | 1117 CE, Schiphol-Oost, The Netherlands (the “Meeting”).

The agenda for the Meeting, including proposals made by the Board of Directors, is as follows:

1. Opening.
3. Adoption of the annual accounts for the 2020 financial year (voting item).
4. Reservation and dividend policy (for discussion).
5. Release of liability of the directors with respect to their management during the 2020 financial year (voting item).
6. Approval pursuant to Article 2:107a Dutch Civil Code and article 16.7 of the Company’s articles of association in relation to the anticipated acquisition of the GECAS Business (voting item).
7. (a) Conditional re-appointment of the Company’s Chief Executive Officer, Mr. Aengus Kelly, as executive director for a period of four years in relation to the anticipated acquisition of the GECAS Business (voting item).
   (b) Conditional re-appointment of Mr. Paul Dacier as non-executive director for a period of four years in relation to the anticipated acquisition of the GECAS Business (voting item).
   (c) Re-appointment of Mr. Michael Walsh as non-executive director for a period of four years (voting item).
   (d) Re-appointment of Mr. James Lawrence as non-executive director for a period of four years (voting item).
8. Conditional appointment of Ms. Jennifer VanBelle as non-executive director for a period of four years in relation to the anticipated acquisition of the GECAS Business (voting item).
9. Approval of increase in number of ordinary shares in the Company’s capital available for issuance under the Company’s equity incentive plan (voting item).
10. Appointment of Mr. Peter L. Juhas as the person referred to in article 16, paragraph 8 of the Company’s articles of association (voting item).
11. Appointment of PricewaterhouseCoopers Accountants N.V. for the audit of the
Company's annual accounts for the 2021 financial year (voting item).

12. (a) Authorization of the Board of Directors to issue shares and to grant rights to subscribe for shares (voting item).
   (b) Authorization of the Board of Directors to limit or exclude pre-emptive rights in relation to agenda item 12(a) (voting item).
   (c) Authorization of the Board of Directors to issue additional shares and to grant additional rights to subscribe for shares (voting item).
   (d) Authorization of the Board of Directors to limit or exclude pre-emptive rights in relation to agenda item 12(c) (voting item).
   (e) Conditional authorization of the Board of Directors to issue additional shares and to grant additional rights to subscribe for shares in relation to the anticipated acquisition of the GECAS Business (voting item).
   (f) Conditional authorization of the Board of Directors to limit or exclude pre-emptive rights in relation to agenda item 12(e) in relation to the anticipated acquisition of the GECAS Business (voting item).

13. (a) Authorization of the Board of Directors to repurchase shares (voting item).
   (b) Conditional authorization of the Board of Directors to repurchase additional shares (voting item).

14. Reduction of capital through cancellation of shares (voting item).

15. Conditional amendment to the Company's articles of association, to increase the authorized share capital to EUR 4,500,000 and to permit the interim filling of vacancies on the Board of Directors, and the designation of each of the Company's directors and each (candidate) civil law notary and lawyer at NautaDutilh to implement the amendment to the Company's articles of association (voting item).

16. Questions.

17. Closing.
Copies of the agenda for the Meeting stating the topics to be considered; the explanation to the agenda; the annual report comprising the annual accounts and the report of the Board of Directors for the 2020 financial year; and the shareholders' circular concerning the anticipated acquisition of the GECAS Business; the draft deed of amendment including the proposed amendment to the Company's articles of association and other meeting documents (collectively, the "Proxy Materials") can be obtained free of charge by shareholders who are registered in the Company's shareholders' register ("Holders of Registered Shares"), shareholders who hold their shares indirectly through Cede & Co., as nominee for the Depositary Trust Company ("Holders of Listed Shares" and together with the Holders of Registered Shares, the "Shareholders" and such shares the "Shares"), others with meeting rights under Dutch law in respect of the Company ("Others with Meeting Rights") and their respective representatives, until the close of the Meeting, at the place of the Meeting, at the offices of the Company at AerCap House, 65 St. Stephen’s Green, Dublin D02 YX20, Ireland, and at Broadridge Corporate Issuer Solutions, Inc., the Company's transfer agent in connection with the listing of the Company's shares at the New York Stock Exchange, at 1155 Long Island Avenue, Edgewood, NY, 11717, U.S.A. and are also available free of charge during the Meeting. Copies of the Proxy Materials are also available on the Company's website (www.aercap.com).

The Board of Directors has determined that only those who are Shareholders or Others with Meeting Rights on April 14, 2021 (the "Record Date") and who are registered in the Company's shareholders' register on that date, or have a valid proxy from such Shareholders or Others with Meeting Rights, may attend and, if applicable, vote at the Meeting. Holders of Registered Shares and Others with Meeting Rights who are not yet registered may send a registration request by e-mail to shareholdersmeeting@aercap.com.

The Company will mail the Proxy Materials and a proxy form to Shareholders who owned their Shares (whether or not through Cede & Co., as nominee for the Depositary Trust Company) on March 25, 2021. This mailing will allow Shareholders more time to read and consider the Proxy Materials. However, such Shareholders' votes will not count unless they are Shareholders on the Record Date.

The Company will make a second distribution of Proxy Materials following the Record Date to Shareholders who acquired their Shares after March 25, 2021 and who continued to hold their Shares up to and including the Record Date, to ensure that all Shareholders who hold Shares on the Record Date have the opportunity to vote.

It is recommended that Shareholders vote promptly after receipt of the Proxy Materials and proxy form in accordance with the voting instructions contained therein, to allow sufficient time for the voting instructions and proxies to be tabulated.
Shareholders and Others with Meeting Rights wishing to exercise their meeting rights by submitting a proxy must return the proxy in accordance with the instructions set forth in the proxy form no later than May 5, 2021. Shareholders and Others with Meeting Rights wishing to exercise their meeting rights in person must (i) notify the Company by submitting an e-mail stating their name and the number of Shares they hold, or to which their meeting rights relate, to shareholdersmeeting@aercap.com and (ii) in the case of Holders of Listed Shares, provide the Company with appropriate evidence of ownership of and authority to vote such Shares, no later than May 5, 2021.

Access to the Meeting by Shareholders, Others with Meeting Rights or proxy holders will be permitted after verification of personal identification. In the current context, to prioritise the health and safety, AerCap strongly discourages physical attendance at the AGM and highly recommends shareholders to vote by proxy. AerCap is closely following the evolving nature of the global pandemic and will apply local and AGM-location-specific restrictions in this regard. Updates in this regard will be posted on our corporate website if arrangements in relation to the AGM change.

For further information please see www.aercap.com.

Requests for information can also be sent to: shareholdersmeeting@aercap.com.

The Board of Directors

March 25, 2021