

**PYROPHYTE ACQUISITION CORP. II
COMPENSATION COMMITTEE CHARTER**

Effective July 16, 2025

I. PURPOSES

The Compensation Committee (the “*Committee*”) is appointed by the Board of Directors (the “*Board*”) of Pyrophyte Acquisition Corp. II (the “*Company*”) to: (A) assist the Board in overseeing the Company’s employee compensation policies and practices, including (i) determining and approving the compensation of the Company’s Chief Executive Officer (“*CEO*”) and the Company’s other executive officers, and (ii) reviewing and approving incentive compensation and equity compensation policies and programs, and exercising discretion in the administration of such programs; and (B) produce the annual report of the Committee required by the rules of the U.S. Securities and Exchange Commission (“*SEC*”).

II. COMMITTEE MEMBERSHIP

A. Composition

The Committee shall consist of two or more members of the Board. Except as otherwise directed by the Board, a director selected as a Committee member shall continue to be a member for as long as he or she remains a director or until his or her earlier resignation or removal from the Committee. Any member may be removed from the Committee by the Board, with or without cause, at any time. Any vacancy on the Committee shall be filled by a majority vote of the Board. No member of the Committee shall be removed except by majority vote of the Board.

B. Chair

The Chair of the Committee shall be appointed from among the Committee members by, and serve at the pleasure of, the Board, shall preside at meetings of the Committee and shall have authority to convene meetings, set agendas for meetings, and determine the Committee’s information needs, except as otherwise provided by the Board or the Committee, provided that if the Board does not so designate a chairperson, the members of the Committee, by a majority vote, may designate a chairperson. In the absence of the Chair at a duly convened meeting, the Committee shall select a temporary substitute from among its members to serve as chair of the meeting.

C. Independence

Each member of the Committee shall be an “independent” director in accordance with the applicable listing standards of the New York Stock Exchange (“*NYSE*”), including standards specifically applicable to compensation committee members, subject to any exceptions or cure periods that are applicable pursuant to the foregoing requirements and the phase-in periods permitted under the rules of the NYSE under which the Committee is required to have only one independent member at the time of listing, a majority of independent members within 90 days of listing and all independent members within one year of listing. Any action duly taken by the Committee shall be valid and effective, whether or not the members of the Committee at the time of such action are later determined not to have satisfied the requirements for membership provided herein.

III. AUTHORITY

In discharging its role, the Committee is empowered to inquire into any matter that it considers appropriate to carry out its responsibilities, with access to all books, records, facilities and personnel of the Company, and, subject to the direction of the Board, the Committee is authorized and delegated the authority to act on behalf of the Board with respect to any matter necessary or appropriate to the accomplishment of its purposes.

The Committee shall have the sole discretion to retain or obtain advice from, oversee and terminate any compensation consultant, legal counsel or other adviser to the Committee and be directly responsible for the appointment, compensation and oversight of any work of such adviser retained by the Committee, and the Company

will provide appropriate funding (as determined by the Committee) for the payment of reasonable compensation to any such adviser.

IV. COMMITTEE MEETINGS

The Committee shall meet as often as necessary to carry out its responsibilities, which, following the Company's initial business combination, shall be at least quarterly.

The Committee shall establish its own schedule of meetings. The Committee may also act by unanimous written consent of its members.

Notice of meetings shall be given to all Committee members or may be waived, in the same manner as required for meetings of the Board. Meetings of the Committee may be held by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear and speak with each other. A majority of the members of the Committee shall constitute a quorum for a meeting and the affirmative vote of a majority of members present at a meeting at which a quorum is present shall constitute the action of the Committee. The Committee shall otherwise establish its own rules of procedure.

V. DELEGATION

The Committee, by resolution approved by a majority of the Committee, may form and delegate any of its responsibilities to a subcommittee so long as such subcommittee is solely comprised of one or more members of the Committee and such delegation is not otherwise inconsistent with law and applicable rules and regulations of the SEC and the NYSE.

In addition, the Committee may, by resolution approved by a majority of the Committee, delegate to management the administration of the Company's incentive compensation and equity-based compensation plans, to the extent permitted by law and as may be permitted by such plans and subject to such rules, policies and guidelines (including limits on the aggregate awards that may be made pursuant to such delegation) as the Committee shall approve, provided that, consistent with Section VI below, the Committee shall determine and approve the awards made under such plan to any executive officer and any other member of senior management as the Committee shall designate and shall at least annually review the awards made to such other members of senior management as the Committee shall designate.

VI. KEY RESPONSIBILITIES

The following responsibilities are set forth as a guide for fulfilling the Committee's purposes in such manner as the Committee determines is appropriate:

- (a) establish and review the objectives of the Company's management compensation programs and its basic compensation policies;
- (b) review and approve corporate goals and objectives relevant to the compensation of the CEO and other executive officers, including annual and long-term performance goals and objectives;
- (c) review and approve, subject to such further action of the Board as the Board shall determine, any employment, compensation, benefit or severance agreement with any executive officer;
- (d) evaluate at least annually the performance of the CEO and other executive officers against corporate goals and objectives including the annual performance objectives and, based on this evaluation, determine and approve, subject to such further action of the Board as the Board shall determine, the compensation (including any awards under any equity-based compensation or non-equity-based incentive compensation plan of the Company and any material perquisites) for the executive officers based on this evaluation;

- (e) determine and approve the compensation level (including any awards under any equity-based compensation or non-equity-based incentive compensation plan of the Company and any material perquisites) for other members of senior management of the Company as the Committee or the Board may from time to time determine to be appropriate;
- (f) review at least annually the compensation of other employees as the Committee determines to be appropriate (including any awards under any equity-based compensation or non-equity-based incentive compensation plan of the Company and any material perquisites);
- (g) review on a periodic basis the Company's management compensation programs, including any management incentive compensation plans as well as plans and policies pertaining to perquisites, to determine whether they are appropriate, properly coordinated and achieve their intended purpose(s), and recommend to the Board any appropriate modifications or new plans, programs or policies;
- (h) review, approve and recommend to the Board the adoption of any equity-based compensation plan for employees of or consultants to the Company and any modification of any such plan;
- (i) administer the Company's equity-based compensation plans for employees of and consultants to the Company as provided by the terms of such plans, including authorizing all awards made pursuant to such plans;
- (j) review, approve and recommend to the Board the adoption of any non-equity-based incentive compensation plan for employees of or consultants to the Company and any material modification of any such plan and review at least annually the awards made pursuant to such plans;
- (k) review, approve and recommend to the Board the adoption of any employee retirement plan, and other material employee benefit plan, and any material modification of any such plan;
- (l) review at least annually (a) the Company's compensation policies and practices for executives, management employees and employees generally to assess whether such policies and practices could lead to excessive risk taking behavior and (b) the manner in which any risks arising out of the Company's compensation policies and practices are monitored and mitigated and adjustments necessary to address changes in the Company's risk profile;
- (m) with respect to any compensation consultant who has been engaged to make determinations or recommendations on the amount or form of executive or director compensation: (a) annually, or from time to time as the Committee deems appropriate, assess whether the work of any such compensation consultant (whether retained by the compensation committee or management) has raised any conflicts of interest; and (b) review the engagement and the nature of any additional services provided by such compensation consultant to the Committee or to management, as well as all remuneration provided to such consultant;
- (n) annually, or from time to time as the Committee deems appropriate and prior to retention of any advisers to the Committee, assess the independence of compensation consultants, legal and other advisers to the Committee, taking into consideration all relevant factors the Committee deems appropriate to such adviser's independence, including factors specified in the listing standards of the NYSE;
- (o) review and discuss with management the Compensation Discussion and Analysis disclosure required by SEC regulations and determine whether to recommend to the Board, as part of a report of the Committee to the Board, that such disclosure be included in the Company's Annual Report on Form 10-K and any proxy statement for the election of directors; as part of this review, the Committee shall consider the results of the most recent stockholder advisory vote on executive compensation ("say-on-pay" vote) required by Section 14A of the Exchange Act;

- (p) at least every six years or more frequently as appropriate, make a recommendation to the Board regarding the frequency with which the Company will conduct a say-on-pay vote;
- (q) review the form and amount of director compensation at least annually, and make recommendations thereon to the Board;
- (r) oversee and monitor other compensation related policies and practices of the Company, including: (i) the Company's stock ownership guidelines for directors and executive officers; (ii) compliance by management with rules regarding equity-based compensation plans for employees and consultants pursuant to the terms of such plans, and the guidelines for issuance of awards as the Board or Committee may establish; and (iii) the Company's recoupment policy and procedures;
- (s) oversee stockholder communications relating to executive compensation and review and make recommendations with respect to stockholder proposals related to compensation matters;
- (t) conduct an annual self-evaluation of the performance of the Committee, including its effectiveness and compliance with this charter, and recommend to the Board such amendments of this charter as the Committee deems appropriate;
- (u) report regularly to the Board on Committee findings and recommendations and any other matters the Committee deems appropriate or the Board requests, and maintain minutes or other records of Committee meetings and activities;
- (v) from and after the completion of the Company's initial business combination, in consultation with the CEO, annually report to the Board on succession planning, which shall include emergency CEO succession, CEO succession in the ordinary course and succession for other members of senior management, working with the entire Board to evaluate potential successors to the CEO; and
- (w) undertake such other responsibilities or tasks as the Board may delegate or assign to the Committee from time to time.