

X-ENERGY, INC.
NOMINATING AND CORPORATE GOVERNANCE COMMITTEE CHARTER

Effective as of April 24, 2026

I. PURPOSE

The purpose of the Nominating and Corporate Governance Committee (the “*Committee*”) is to (i) identify individuals qualified to become members of the Board of Directors (the “*Board*”) of X-Energy, Inc. (the “*Company*”) consistent with criteria approved by the Board, (ii) recommend that the Board select the director nominees for the next annual meeting of shareholders, (iii) develop and recommend to the Board a set of Corporate Governance Guidelines (as defined herein), and (iv) oversee the evaluation of the Board and its committees.

II. COMPOSITION

The Committee must consist of at least two (2) directors. Subject to an election by the Company to rely on the exemption available to “controlled companies” under the rules of the Nasdaq Stock Market LLC (“*Nasdaq*”) and the applicable transition period thereunder, each member of the Committee must satisfy the independence requirements of Nasdaq. Committee members must be appointed and may be removed, with or without cause, by the Board. Unless a Chair is designated by the Board, the Committee may designate a Chair by majority vote of the full Committee membership.

III. MEETINGS, PROCEDURES AND AUTHORITY

The Committee will meet as often as necessary to carry out its responsibilities. The Committee has the authority to establish its own rules and procedures for notice and conduct of its meetings so long as they are not inconsistent with any provisions of the Company’s bylaws that are applicable to the Committee.

The Committee has sole authority to retain and terminate any search firm to be used to identify director candidates, including sole authority to approve such search firm’s fees and other retention terms. The Committee has the authority to retain any other advisors that the Committee believes to be desirable and appropriate and has the authority to approve related fees and retention terms.

In addition to the duties and responsibilities expressly delegated to the Committee in this Charter, the Committee may exercise any other powers and carry out any other responsibilities consistent with this Charter, the purposes of the Committee, and the Company’s bylaws.

IV. DUTIES AND RESPONSIBILITIES

1. *Director Nominees.* Except where the Company is legally required by contract, bylaws or otherwise to provide third parties with the right to designate directors, the Committee will identify individuals qualified to become members of the Board and ensure that the Board has the requisite expertise and that its membership consists of persons with sufficiently independent backgrounds who contribute to the mix of experience, backgrounds, qualifications and skills of the Board. The Committee will also recommend to the Board the nominees for election to the Board at the next annual meeting of shareholders and director candidates to fill vacancies occurring between annual meetings of shareholders. The Committee will evaluate candidates recommended by stockholders on a substantially similar basis as it considers other nominees.

2. *Criteria for Selecting Directors.* The criteria to be used by the Committee in recommending directors and by the Board in nominating directors are as set forth in the Company's corporate governance guidelines (the "**Corporate Governance Guidelines**").

3. *Board Committee Structure and Membership.* The Committee will annually review the Board committee structure and recommend to the Board for its approval directors to serve as members of each committee.

4. *Board Leadership Structure.* The Committee will periodically review the Board's leadership structure to assess whether it is appropriate given the specific characteristics and circumstances of the Company and recommend any proposed changes to the Board.

5. *Corporate Governance Guidelines.* The Committee will develop and recommend to the Board the Corporate Governance Guidelines. The Committee will, from time to time as it deems appropriate, review and reassess the adequacy of such Corporate Governance Guidelines and recommend any proposed changes to the Board for approval.

6. *Director Changes in Position or Circumstances.* The Committee will review any notification by a director of his or her resignation or material changes in employment or of circumstances that may adversely reflect upon the director or the Company, in accordance with the Corporate Governance Guidelines. Based on this review, the Committee may recommend that the Board request such director to resign from the Board.

7. *Board and Board Committee Evaluations.* The Committee will oversee the annual self-evaluations of the Board and its committees.

8. *Succession Planning.* The Committee will be responsible for overseeing the Company's succession plan for the Chief Executive Officer and other executive officer roles.

9. *Other Corporate Governance Matters.* The Committee may make recommendations to the Board regarding governance matters, including, but not limited to, the Company's certificate of incorporation, bylaws, and the charters of the Company's other committees.

10. *Environmental and Social Matters.* The Committee shall, in consultation, as needed, with each of the other committees of the Board, periodically review, and provide oversight with respect to, the Company's strategy, initiatives and policies concerning corporate social responsibility, including environmental and social matters (with the Compensation and Culture Committee of the Board having primary responsibility for matters relating to human capital management).

11. *Reports to the Board of Directors.* The Committee must report regularly to the Board regarding the activities of the Committee.

12. *Committee Self-Evaluation.* The Committee must at least annually perform an evaluation of the performance of the Committee.

13. *Review of this Charter.* The Committee must periodically review and reassess this Charter and submit any recommended changes to the Board for its consideration.

V. Delegation of Duties

In fulfilling its responsibilities, the Committee has the authority to delegate any or all of its responsibilities to a subcommittee of the Committee.