EARTHSTONE ENERGY, INC. COMPENSATION COMMITTEE CHARTER Adopted August 29, 2017

I. PURPOSE

The purpose of the Compensation Committee (the "Committee") of the board of directors (the "Board" or, when referring to the individuals, the "Directors") of Earthstone Energy, Inc., a Delaware corporation (the "Company"), is to discharge the Board's responsibilities relating to compensation of the Company's Chief Executive Officer ("CEO") and the Company's other executive officers (collectively, including the CEO, the "Executive Officers"). The Committee has overall responsibility for approving and evaluating all compensation plans, policies and programs of the Company as they affect the Executive Officers.

II. COMPOSITION OF THE COMMITTEE

The Committee shall consist of at least three (3) Directors as determined by the Board. All Committee members ("Members") shall meet the independence requirements of the New York Stock Exchange (the "NYSE"), and as otherwise required by securities laws, rules and regulations. At least two Members also shall qualify as "non-employee directors" for the purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and as "outside directors" for the purposes of Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code").

The Members shall be appointed by the Board and shall serve until their successors shall be duly appointed and qualified. A chairman shall be appointed by the Board (the "Chairman"). The Board may remove any Member at any time with or without cause.

III. DUTIES AND RESPONSIBILITIES

The Committee shall have the following authority and responsibilities:

To review and approve annually the corporate goals and objectives applicable to the compensation of the CEO, evaluate at least annually the CEO's performance in light of those goals and objectives, and determine and approve the CEO's compensation level based on this evaluation. In determining the long-term incentive components of CEO compensation, the Committee may consider a number of factors, including, but not limited to, the Company's performance and relative stockholder return, the value of similar incentive awards to chief executive officers at comparable companies and the awards given to the CEO in past years. In evaluating and determining CEO compensation, 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.

To review and approve, on an annual basis, the compensation of all other Executive Officers. In evaluating and determining executive compensation, the Committee shall consider the results of the most recent Say on Pay Vote.

To review, approve and, when appropriate, recommend to the Board for approval, incentive compensation plans and equity-based plans, and where appropriate or required, recommend for approval by the stockholders of the Company, which includes the ability to adopt, amend and terminate such plans. The Committee shall also have the authority to administer the Company's incentive compensation plans and equity-based plans, including designation of the employees to whom the awards are to be granted, the amount of the award or equity to be granted and the terms and conditions applicable to each award or grant, subject to the provisions of each plan. In reviewing and approving incentive compensation plans and equity-based plans, including whether to adopt, amend or terminate any such plans, the Committee shall consider the results of the most recent Say on Pay Vote.

To review and discuss with management the Company's Compensation Discussion and Analysis ("CD&A") and the related executive compensation information required to be included in the Company's annual report on Form 10-K and proxy statement by the rules and regulations of the Securities and Exchange Commission (the "SEC"), and based on such review and discussion, determine whether or not to recommend to the Board that the CD&A be so included.

The Committee shall produce the annual Compensation Committee Report for inclusion in the Company's proxy statement in compliance with the rules and regulations promulgated by the SEC.

To review the Company's incentive compensation arrangements to determine whether they encourage excessive risk-taking, to review and discuss at least annually the relationship between risk management policies and practices and compensation, and to evaluate compensation policies and practices that could mitigate any such risk.

To oversee the Company's compliance with SEC rules and regulations regarding stockholder approval of certain executive compensation matters, including advisory votes on executive compensation and the frequency of such votes, and the requirement under NYSE rules that, with limited exceptions, stockholders approve equity compensation plans.

To review Director compensation for service on the Board and Board committees at least once a year and to recommend any changes to the Board.

To conduct on an annual basis an evaluation of the Committee's performance, review and assess the adequacy of this Charter and recommend any proposed changes to the Board for approval.

IV. OUTSIDE ADVISORS

The Committee shall have the authority, in its sole discretion, to retain or obtain the advice of a compensation consultant, independent legal counsel or other advisor as necessary to assist with the execution of its duties and responsibilities as set forth in this Charter. The Committee shall set the compensation, and oversee the work, of the consultant, independent legal counsel or other advisor retained by the Committee. The Committee shall receive appropriate funding from the Company, as determined by the Committee in its capacity as a committee of the Board, for the payment of compensation to its compensation consultants, independent legal counsel and any other advisors. However, the Committee shall not be required to implement or act consistently with the advice or recommendations of its compensation consultant, independent legal counsel or other advisor to the Committee, and the authority granted in this Charter shall not affect the ability or obligation of the Committee to exercise its own judgment in fulfillment of its duties under this Charter. The Committee may select a compensation consultant, independent legal counsel, or other adviser only after taking into consideration all factors relevant to such party's independence from management, including those specified in the applicable listing standards of the NYSE and regulations of the SEC.

V. MEETINGS AND OPERATIONS

The Committee shall meet as often as necessary to carry out its responsibilities. The Committee shall report regularly to the Board regarding its actions and make recommendations to the Board as appropriate. The Committee is governed by the same rules regarding meetings (including meetings in person or by telephone or other similar communications equipment), action without meetings, notice, waiver of notice, and quorum and voting requirements as are applicable to the Board.

VI. DELEGATION OF AUTHORITY

The Committee shall have the authority to delegate any of its responsibilities, along with the authority to take action in relation to such responsibilities, to one or more subcommittees as the Committee may deem appropriate in its sole discretion.