

BOARD OF DIRECTORS MANDATE

PURPOSE

The principal role of the Board of Directors (the "Board") of NXT Energy Solutions Inc. (the "Company") is stewardship of the Company through the creation of shareholder value, including the protection and enhancement of the value of its assets, as the fundamental objective. The stewardship responsibility means that the Board oversees the conduct of the business and management, which is responsible for the day-to-day conduct of the business. The Board must assess and ensure systems are in place to manage the risks of the Company's business with the objective of preserving the Company's assets. The Board, through the Chief Executive Officer ("CEO"), sets the attitude and disposition of the Company towards compliance with applicable laws, environmental, safety and health policies, financial practices and reporting. In addition to its primary accountability to shareholders, the Board is also accountable to employees, government authorities, other stakeholders and the public.

PRIMARY RESPONSIBILITIES

The principal responsibilities of the Board, which are required to ensure the overall stewardship of the Company are as follows:

1. the Board must ensure that there are long-term goals in place and must adopt a strategic planning process. The CEO, with the approval of the Board, must establish long-term goals for the Company. The CEO formulates the Company's strategy, policies and proposed actions and presents them to the Board for approval. The Board brings objectivity and judgment to this process. The Board ultimately approves, on an annual basis, the strategic plan which takes into account, among other things, the opportunities and risks of the Company's business;
2. the Board must identify and have an understanding of the principal risks associated with the Company's businesses and must ensure that appropriate systems are in place which effectively monitor and manage those risks;
3. the Board must ensure that processes are in place to enable it to monitor and measure management's, and in particular the CEO's, performance in achieving the Company's stated objectives. These processes should include appropriate training, development and succession planning of management;
4. to the extent feasible, the Board shall satisfy itself as to the integrity of the CEO and other executive officers and that the CEO and other executive officers create a culture of integrity throughout the Company;
5. the Board must ensure that the necessary internal controls and management systems are in place that effectively monitor the Company's operations and ensure compliance with applicable laws, regulations and policies;
6. the Board must monitor compliance with the Company's Code of Business Conduct and Ethics; and
7. the Board must ensure the Company has adopted a communication policy which effectively communicates with and receives feedback from shareholders. The Board must also ensure that the Company has appropriate processes in place to effectively communicate with employees, government authorities, other stakeholders and the public.

NON-DELEGABLE RESPONSIBILITIES

Pursuant to the *Business Corporations Act* (Alberta) (the "Act"), certain matters are considered to be of such importance, so as to warrant the attention of all Directors and, accordingly, the Act prescribes that the following matters either cannot be delegated or may only be delegated in a qualified or partial manner:

- the submission of items to shareholders for their approval;
- the filling of a vacancy among the directors or in the office of auditor;
- the appointment of additional directors;
- the issue of securities;
- the declaration of dividends;
- the purchase, redemption or other acquisition of the Company's own shares;
- the payment of certain commissions prescribed by the Act;
- the approval of a management proxy circular;
- the approval of annual financial statements; and
- the adoption, amendment or repeal of by-laws.

CUSTOMARY BOARD MATTERS

The following typifies matters customarily considered by the Board in fulfilling its responsibility for stewardship of the Company. The Board may determine it appropriate to delegate certain of these matters to committees of the Board:

- the appointment of officers, other than executive officers;
- adopting a process to consider the competencies and skills the Board, as a whole, should possess and assess the competencies and skills of each Board member and consider the appropriate size of the Board, with a view to facilitating effective decision-making;
- determining the remuneration of directors and auditors;
- reviewing and recommending to shareholders, changes to capital structure;
- approving the Company's long-term strategy and the annual capital expenditure plan of the Company and its subsidiaries and where appropriate any supplementary capital plan;
- approving banking, borrowing and investment policies;
- determining dividend policy;
- developing the Company's approach to corporate governance including, without limitation, developing a set of corporate governance principles and guidelines;
- approving the holding, location and date of meetings of shareholders;

- appointment of members to committees of the Board of Directors and approving terms of reference for and the matters to be delegated to such committees;
- granting any waivers from the Company's Code of Business Conduct and Ethics for the benefit of the Company's directors or executive officers;
- granting and delegating authority to designated officers and employees including the authority to commit capital, open bank accounts, sign bank requisitions and sign contracts, documents and instruments in writing;
- determining the number of directors and recommending nominees for election by the shareholders;
- approving amendments to the Company's existing: Stock Option Plan, employee benefits plans, or such other plans as the Company approves from time to time;
- approving the acquisition or disposition of certain corporate assets; and
- appointing the Company's transfer agents and registrars.

BOARD COMMITTEES

The Board of Directors has the authority to appoint a committee or committees of the Board and may delegate powers to such committees (with the exceptions prescribed by the Act). The matters to be delegated to committees of the Board and the constitution of such committees are assessed annually or more frequently as circumstances require. The following committees have been constituted:

1. the Audit Committee, to deal with financial reporting and control systems;
2. the Compensation Committee, to deal with the assessment of management and succession to key positions and compensation within the Company;
3. the Disclosure Committee, to deal with the Company's approach to disclosure and the promotion of compliance; and
4. the Corporate Governance Committee, to deal with the Company's approach to corporate governance and the promotion of compliance.

COMPOSITION & PROCEDURE

The Board of Directors is elected annually by shareholders. The number of Directors to be elected at shareholders meetings is fixed by the by-laws. While the election of directors is ultimately determined by the shareholders, it is the policy of the Board that a majority of the Directors be independent (as defined under applicable stock exchange rules and securities laws).

The Chairman of the Board presides as Chair at all meetings of the Board and shareholders of the Company. The Corporate Secretary or the Recording Secretary attends all meetings of the Board and shareholders and records the proceedings thereof. The Corporate Secretary prepares and keeps minutes and records of all meetings of the Board.

Meetings of the Board of Directors, including telephone conference meetings, are to be held at such time and place as the Chairman of the Board, or any two Directors, may determine. Notice of meetings shall be given to each Director in accordance with the by-laws. Meetings of the Board of Directors may be held

without formal notice if all of the Directors are present and do not object to notice not having been given, or if those absent waive notice in any manner before or after the meeting.

Notice of meeting may be delivered personally, given by mail, facsimile or other electronic means of communication.

Each Board member is expected to attend Board meetings and meetings of committees of which he or she is a member and to become familiar with deliberations and decisions as soon as possible after any missed meetings. In that regard, members of the Board are expected to prepare for Board (and committee) meetings by reviewing meeting materials distributed to members of the Board, to the extent feasible, in advance of such meetings. Matters of a confidential or sensitive nature may be discussed at Board (or committee) meeting without advance distribution of meeting materials to members of the Board. It is expected that members of the Board will actively participate in determining and setting the long and short-term goals and interests of the Company.

In recognition of its independence, the Board shall regularly hold discussions without management present.

A resolution in writing signed by all the Directors entitled to vote on that resolution at a meeting of the Directors is as valid as if it had been passed at a meeting of the Directors. A copy of any such resolution in writing is kept with the minutes of the proceedings of the Directors.

At meetings of the Board, any matter requiring a resolution of the Directors is decided by a majority of the votes cast on the question; and in the case of an equality of votes, the Chair of the meeting is entitled to a second or casting vote.

The Board shall ensure that there is a process in place for annually evaluating the effectiveness of the Board, the committees of the Board and individual directors.

COMPENSATION

No director, unless they are an officer of the Company, should receive remuneration from the Company other than compensation received in their capacity as a director.