

NXT ENERGY SOLUTIONS INC.

NOTICE OF ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS

NOTICE IS HEREBY GIVEN THAT an annual and special meeting (the “**Meeting**”) of holders (“**Shareholders**”) of common shares (the “**Common Shares**”) of NXT Energy Solutions Inc. (the “**Company**” or “**NXT**”) will be held as follows:

When: 10:00 am (Calgary time) on Wednesday, August 2, 2023

Where: Norton Rose Fulbright Canada LLP
400 3rd Avenue SW, Suite 3700
Calgary, Alberta T2P 4H2
Telephone: 403.267.8222

The purpose of the Meeting will be to consider the following items of business:

1. to receive and consider the audited financial statements of the Company for the year ended December 31, 2022, the accompanying notes thereto, and the auditor’s report in respect thereof;
2. to elect six directors of the Company;
3. to appoint MNP LLP, Chartered Professional Accountants, as the auditors of the Company for the ensuing year at a remuneration to be determined by the Board of Directors of the Company (the “**Board**”);
4. to consider and approve the Employee Share Purchase Plan Resolution (as defined in the accompanying management information circular), the full text of which is reproduced as **Error! Reference source not found.** to the accompanying Information Circular;
5. to consider and approve the Unallocated Entitlements Resolution (as defined in the accompanying management information circular), the full text of which is reproduced as **Error! Reference source not found.**;
6. to consider and approve the Preferred Share Resolution (as defined in the accompanying management information circular); and
7. to transact such other business as may be properly brought before the Meeting.

The specific details of the matters to be brought before the Meeting are set forth in the accompanying management information circular which forms part of this Notice. Shareholders are reminded to review the information circular in detail prior to voting on the foregoing matters.

The Board has fixed June 28, 2023 as the record date for the determination of Shareholders entitled to receive notice of and to vote at the Meeting and at any postponement or adjournment thereof.

DATED at Calgary, Alberta, this 30th day of June, 2023.

BY ORDER OF THE BOARD OF DIRECTORS

“Charles Selby”

Lead Director

Important

Shareholders who are unable to attend the Meeting or any postponement or adjournment thereof in person are requested to complete, date and sign the enclosed instrument of proxy and return it to Computershare Trust Company at 8th Floor, 100 University Avenue, Toronto, Ontario, M5J 2Y1, (facsimile: 1-866-249-7775) at least 48 hours (excluding Saturdays, Sundays and statutory holidays) before the Meeting or any postponement or adjournment thereof.

Shareholders are cautioned that the use of mail to transmit proxies is at each Shareholder's risk.