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ENERGY FUELS INC.

Proxy for Annual and Special Meeting of Shareholders on May 26, 2021

Solicited on Behalf of the Board of Directors

I/We, being holder(s) of Common Shares of Energy Fuels Inc. (the “Company”), hereby appoint: Mark S. Chalmers, President and Chief Executive Officer, or, failing him, David C. Frydenlund, Chief Financial Officer, or _____ . Print the name of the person you are appointing if this person is someone other than the individuals listed above as proxyholder of the undersigned, to attend, act and vote on behalf of the undersigned in accordance with the below direction (or if no directions have been given, as the proxyholder sees fit) on all the following matters and any other matter that may properly come before the Annual and Special Meeting of Shareholders of the Company (the “Meeting”). Further details regarding the Meeting, the matters to be voted on at the Meeting and how to vote can be found in the Management Information Circular and Proxy Statement of the Company dated April 2, 2021 (the “Management Information Circular and Proxy Statement”).

(Continued and to be signed on the reverse side)

ANNUAL AND SPECIAL MEETING OF SHAREHOLDERS OF ENERGY FUELS INC.

May 26, 2021

PROXY VOTING INSTRUCTIONS

INTERNET - Access "www.voteproxy.com" and follow the on-screen instructions or scan the QR code with your smartphone. Have your proxy card available when you access the web page.



TELEPHONE - Call toll-free **1-800-PROXIES** (1-800-776-9437) in the United States or **1-718-921-8500** from foreign countries and follow the instructions. Have your proxy card available when you call.

Vote online/phone until 11:59 PM EST the day before the meeting.

MAIL - Sign, date and mail your proxy card in the envelope provided as soon as possible.

VIRTUALLY AT THE MEETING - The Company will be hosting the meeting live via the Internet this year. To attend the meeting via the Internet please visit <https://web.lumiagm.com/255057223> (password: ef2021) and be sure to have your control number available.

GO GREEN - e-Consent makes it easy to go paperless. With e-Consent, you can quickly access your proxy materials, statements and other eligible documents online, while reducing costs, clutter and paper waste. Enroll today via www.astfinancial.com to enjoy online access.

COMPANY NUMBER	
ACCOUNT NUMBER	

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIALS:
The Notice of Meeting, proxy statement and proxy card are available at <http://www.astproxyportal.com/ast/23865/>

↓ Please detach along perforated line and mail in the envelope provided IF you are not voting via telephone or the Internet. ↓

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THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF EACH DIRECTOR AND "FOR" PROPOSALS 2, 3, 4 AND 5. PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

- 1. Election of Directors:**
- | | FOR | WITHHOLD |
|--------------------------|--------------------------|--------------------------|
| 1. J. Birks Bovaird | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Mark S. Chalmers | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Benjamin Eshleman III | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Barbara A. Filas | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Bruce D. Hansen | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Dennis L. Higgs | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Robert W. Kirkwood | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Alexander G. Morrison | <input type="checkbox"/> | <input type="checkbox"/> |

- 2. Appointment of Auditors** FOR WITHHOLD
Appointment of KPMG LLP of Denver, Colorado, an independent registered public accounting firm, as the auditors of the Company for 2021, and to authorize the directors to fix the remuneration of the auditors, as set out on page 12 of the Management Information Circular and Proxy Statement.
- 3. Amendment and Extension of Equity Incentive Plan** FOR AGAINST ABSTAIN
If deemed advisable, ratification and approval of amendment and extension of the Company's Omnibus Equity Incentive Compensation Plan for a further three-year term, as set out on page 13 of the Management Information Circular and Proxy Statement.
- 4. Approval of Shareholder Rights Plan** FOR AGAINST ABSTAIN
If deemed advisable, ratification and approval of the Company's Shareholder Rights Plan for a three-year term, as set out on page 27 of the Management Information Circular and Proxy Statement.
- 5. Ratification and Approval of Amendment to By-Laws** FOR AGAINST ABSTAIN
If deemed advisable, ratification and approval of amendment to the Company's by-laws, as set out on page 32 of the Management Information Circular and Proxy Statement.

I/We authorize you to act in accordance with my/our instructions set out above. I/We hereby revoke any proxy previously given with respect to the Meeting. **If no voting instructions are indicated above, this Proxy will be voted "FOR" for all proposals by management's appointees or, if you appoint another proxyholder, as that other proxyholder sees fit. On any amendments or variations proposed or any new business properly submitted before the Meeting, I/We authorize you to vote as you see fit.**

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Shareholder Date: Signature of Shareholder Date:

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.