

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

X-Energy, Inc.

(Name of Issuer)

Class A Common Stock, par value \$0.0001 per share

(Title of Class of Securities)

(CUSIP Number)

06/30/2026

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☐ Rule 13d-1(b)
- ☐ Rule 13d-1(c)
- ☒ Rule 13d-1(d)

SCHEDULE 13G

CUSIP No.

	Names of Reporting Persons	
1	Kamal Seyed Ghaffarian	
	Check the appropriate box if a member of a Group (see instructions)	
2	☐ (a)	
	☐ (b)	
3	Sec Use Only	
	Citizenship or Place of Organization	
4	UNITED STATES	
Number of	Sole Voting Power	
Shares	5	
Beneficially	13,837,514.00	

Owned by Each Reporting Person With:	6	Shared Voting Power
		79,033,595.00
		Sole Dispositive Power
	7	13,837,514.00
		Shared Dispositive Power
	8	79,033,595.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
	92,871,109.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)	
	☐	
11	Percent of class represented by amount in row (9)	
	25.0 %	
12	Type of Reporting Person (See Instructions)	
	IN	

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons	
	X-Energy Holdings, LLC	
	Check the appropriate box if a member of a Group (see instructions)	
2	☐ (a)	
	☐ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization	
	DELAWARE	
	Sole Voting Power	
	5	0.00
	Shared Voting Power	
	6	79,033,595.00
	Sole Dispositive Power	
	7	0.00
	Shared Dispositive Power	
	8	79,033,595.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
	79,033,595.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)	
	☐	
11	Percent of class represented by amount in row (9)	
	21.8 %	

OO

SCHEDULE 13G

Item 1.

Name of issuer:

(a)

X-Energy, Inc.

Address of issuer's principal executive offices:

(b)

530 Gaither Road, Suite 700, Rockville, MD 20850

Item 2.

Name of person filing:

(a)

Each of the following is hereinafter individually referred to as a "Reporting Person" and collectively as the "Reporting Persons." This statement is filed on behalf of: Kamal Seyed Ghaffarian X-Energy Holdings, LLC
Address or principal business office or, if none, residence:

(b)

The principal business address of each of the Reporting Persons is c/o X-Energy, Inc., 530 Gaither Road, Suite 700, Rockville, MD 20850.

Citizenship:

(c)

Kamal Seyed Ghaffarian is a citizen of the United States. X-Energy Holdings, LLC is organized under the laws of the State of Delaware.

Title of class of securities:

(d)

Class A Common Stock, par value \$0.0001 per share

(e)

CUSIP No.:

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(a)

☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);

(b)

☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);

(c)

☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);

(d)

☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

(e)

☐ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);

(f)

☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);

(g)

☐ A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

(h)

☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(i)

☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j)

☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:

(k)

☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

(a)

Amount beneficially owned:

The ownership information presented below represents beneficial ownership of Class A Common Stock of the Issuer as of June 30, 2026, based upon 287,458,734 shares of Class A Common Stock outstanding as of August 10, 2026, as disclosed in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 13, 2026. The ownership information also assumes the redemption of the common units of X-Energy Reactor Company, LLC ("Common Units") into shares of Class A Common Stock of the Issuer on a one-to-one basis, as applicable. Kamal Seyed Ghaffarian may be deemed to beneficially own 92,871,109 shares of Common Stock, which consist of (i) 471,774 shares of Class A Common Stock and 8,963,719 shares of Class A Common Stock underlying Common Units held by GM Enterprises, LLC, (ii) 3,951,679 shares of Class A Common Stock and 75,081,916 shares of Class A Common Stock underlying Common Units held by X-Energy Holdings, LLC, (iii) 12,973 shares of Class

A Common Stock and 246,498 shares of Class A Common Stock underlying Common Units held by IBX Opportunity GP, Inc., (iv) 592,651 shares of Class A Common Stock held by X-energy KG Parent, LLC, (v) 401,799 shares of Class A Common Stock held by IBX Employee Management, LLC, (vi) 327,578 shares of Class A Common Stock held by IBX X-Energy SPV I, LLC, (vii) 1,307,063 shares of Class A Common Stock held by Lightcone X-Energy Series D SPV LLC, (viii) 279,438 shares of Class A Common Stock that may be beneficially owned by IBX, LLC, and (ix) 1,234,021 shares of Class A Common Stock that may be beneficially owned directly by Dr. Kamal Ghaffarian. Dr. Kamal Ghaffarian may be deemed to beneficially own the securities held by each of the foregoing entities. Dr. Kamal Ghaffarian disclaims beneficial ownership of such securities.

Percent of class:

(b)

Kamal Seyed Ghaffarian: 25.0% X-Energy Holdings, LLC: 21.8% %

(c)

Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

Kamal Seyed Ghaffarian: 13,837,514 X-Energy Holdings, LLC: 0

(ii) Shared power to vote or to direct the vote:

Kamal Seyed Ghaffarian: 79,033,595 X-Energy Holdings, LLC: 79,033,595

(iii) Sole power to dispose or to direct the disposition of:

Kamal Seyed Ghaffarian: 13,837,514 X-Energy Holdings, LLC: 0

(iv) Shared power to dispose or to direct the disposition of:

Kamal Seyed Ghaffarian: 79,033,595 X-Energy Holdings, LLC: 79,033,595

Item 5. Ownership of 5 Percent or Less of a Class.

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

Not Applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

Not Applicable

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Kamal Seyed Ghaffarian

Signature: /s/ Kamal Seyed Ghaffarian

Name/Title: Kamal Seyed Ghaffarian

Date: 08/14/2026

X-Energy Holdings, LLC

Signature: /s/ Kamal Seyed Ghaffarian

Name/Title: Kamal Seyed Ghaffarian, Executive Chairman

Date: 08/14/2026