
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

EOS ENERGY ENTERPRISES, INC.
(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

84-4290188

(I.R.S. Employer
Identification Number)

3920 Park Avenue
Edison, New Jersey 08820
(732) 225-8400

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Joe Mastrangelo
Chief Executive Officer
Eos Energy Enterprises, Inc.
3920 Park Avenue
Edison, New Jersey 08820
Tel: (732) 225-8400

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:

Matthew L. Fry, Esq.
Haynes and Boone, LLP
2801 N. Harwood Street
Suite 2300
Dallas, Texas 75201
Tel: (214) 651-5000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.



158,433,112 shares of Common Stock

On June 21, 2024, Eos Energy Enterprises, Inc., a Delaware corporation (the “Company,” “we,” “our” or “us”), entered into a credit and guaranty agreement (as amended by the First Omnibus Amendment to Credit Documents, dated as of November 26, 2024, and as further amended by the First Amendment to Credit and Guaranty Agreement dated as of April 30, 2025, the “Credit Agreement”) by and among the Company, the guarantors party thereto, the lenders party thereto and CCM Denali Debt Holdings, LP (“CCM Denali Debt”), as administrative agent and collateral agent, pursuant to which the lenders provided a \$210.5 million secured multi-draw facility (the “Delayed Draw Term Loan”), and a \$105 million revolving credit facility, to be made available at the lenders’ sole discretion, on terms and subject to conditions set forth in the Credit Agreement. On June 21, 2024, the Company entered into a securities purchase agreement (the “Purchase Agreement,” together with the Credit Agreement, the “Agreements”) with CCM Denali Equity Holdings, LP (“CCM Denali Equity” or the “Selling Securityholder”), pursuant to which the Company agreed to sell, pursuant to the terms and conditions set forth in the Credit Agreement, securities of the Company.

Pursuant to the Delayed Draw Term Loan, the lenders funded to the Company \$75 million on June 21, 2024, \$30 million on August 29, 2024, \$65 million on October 31, 2024 and \$40.5 million on January 24, 2025. In connection with each draw under the Delayed Draw Term Loan, the Company issued a Warrant (as defined below) and/or shares of preferred stock in amounts representing predetermined, fully diluted, percentages (an “Applicable Percentage”) of the Company’s common stock, par value \$0.0001 per share (the “Common Stock”). In connection with such draws: (i) on June 21, 2024, the lenders were issued a warrant to purchase 43,276,194 shares of Common Stock at an exercise price of \$0.01 per share (the “Warrant”) and shares of Series A-1 Non-Voting Non-Convertible Preferred Stock, par value \$0.0001 per share (the “Series A-1 Preferred Stock”), that converted into 31,940,063 shares of non-voting Series B-1 Convertible Preferred Stock, par value \$0.0001 per share (“Series B-1 Preferred Stock”), which shares of Series B-1 Preferred Stock are convertible into an aggregate of 31,940,063 shares of Common Stock, (ii) on August 29, 2024, the lenders were issued shares of Series A-2 Non-Voting Non-Convertible Preferred Stock, par value \$0.0001 per share (the “Series A-2 Preferred Stock”), that converted into 28,806,463 shares of non-voting Series B-2 Convertible Preferred Stock, par value \$0.0001 per share (“Series B-2 Preferred Stock”), which shares of Series B-2 Preferred Stock are convertible into an aggregate of 28,806,463 shares of Common Stock, (iii) on October 31, 2024, the lenders were issued 38,259,864 shares of non-voting Series B-3 Convertible Preferred Stock, par value \$0.0001 per share (“Series B-3 Preferred Stock”), which shares of Series B-3 Preferred Stock are convertible into an aggregate of 38,259,864 shares of Common Stock, and (iv) on January 24, 2025, the lenders were issued 16,150,528 shares of non-voting Series B-4 Convertible Preferred Stock, par value \$0.0001 per share (the “Series B-4 Preferred Stock” and, together with the Series B-1 Preferred Stock, the Series B-2 Preferred Stock and the Series B-3 Preferred Stock, the “Series B Preferred Stock”), which shares of Series B-4 Preferred Stock are convertible into an aggregate of 16,150,528 shares of Common Stock. This prospectus relates to the offer and sale by the Selling Securityholder of an aggregate of 158,433,112 shares of Common Stock underlying the Series B Preferred Stock and issuable upon exercise of the Warrant issued in connection with the Purchase Agreement.

If the Company fails to achieve Sales Milestone 4 (as defined in the Credit Agreement) on July 31, 2025, the Applicable Percentage will be subject to up to a 1.0% increase for the missed milestone or an increase in the overall Applicable Percentage of up to 34.0%, which would result in the issuance of additional warrants or preferred stock to CCM Denali Equity.

The Selling Securityholder may sell the shares of Common Stock, obtained from the exercise of the Warrant and/or the conversion of the Series B Preferred Stock, in a number of different ways and at varying prices from time to time in accordance with the provisions set forth under the section titled “Plan of Distribution.” The shares of Common Stock, obtained from the exercise of the Warrant and/or the conversion of the Series B Preferred Stock, may be sold directly to you, through agents, or through underwriters and dealers. The Selling Securityholder may sell the shares of Common Stock, obtained from the exercise of the Warrant and / or the conversion of the Series B Preferred Stock, at prevailing market prices or at prices negotiated with buyers. The Selling Securityholder will be responsible for any commissions due to brokers, dealers or agents. We will be responsible for all other offering expenses. We will not receive any of the proceeds from the sale by the Selling Securityholder of the shares of Common Stock offered by this prospectus, except with respect to amounts received by us upon the exercise of the Warrant for cash.

Our Common Stock and our public warrants are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbol “EOSE” and “EOSEW,” respectively. The closing price of our Common Stock on May 6, 2025 was \$5.04 per share. The closing price of our public warrants on May 6, 2025 was \$0.43 per warrant.

Investing in our Common Stock involves a number of risks. You should review carefully the risks and uncertainties described under the heading “Risk Factors” beginning on page 11 of our annual report on [Form 10-K](#) for the fiscal year ended December 31, 2024, which is incorporated herein by reference, as amended or supplemented from time to time by any risk factors we include in subsequent annual or quarterly reports on Form 10-K, 10-Q or 8-K, respectively, and incorporated herein by reference, before investing in our Common Stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 7, 2025.

Neither we nor the Selling Securityholder have authorized anyone to provide you with information that differs from the information provided in this prospectus, as well as the information incorporated by reference into this prospectus and any applicable prospectus supplement. Neither we nor the Selling Securityholder are making an offer of these securities in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus, any applicable prospectus supplement or any documents incorporated by reference is accurate as of any date other than the date of the applicable document. Since the respective dates of this prospectus and the documents incorporated by reference into this prospectus, our business, financial condition, results of operations and prospects may have changed.

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ABOUT THIS PROSPECTUS

This prospectus is part of an “automatic shelf” registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”), as a “well-known seasoned issuer” as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act, using a “shelf” registration process. Under this shelf process, the Selling Securityholder may offer the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of us and the securities that may be offered by the Selling Securityholder. Because the Selling Securityholder may be deemed to be an “underwriter” within the meaning of the Securities Act, each time securities are offered by the Selling Securityholder pursuant to this prospectus, the Selling Securityholder may be required to provide you with this prospectus and, in certain cases, a prospectus supplement that will contain specific information about the Selling Securityholder and the terms of the securities being offered. The prospectus supplement may also add to, update or change the information contained in this prospectus. If there is any inconsistency between the information in this prospectus and any prospectus supplement, you should rely on the information in the prospectus supplement. Please carefully read this prospectus and any prospectus supplement, in addition to the information contained in the documents we refer to under the heading “*Where You Can Find More Information*” and “*Incorporation of Certain Information by Reference*.”

You should rely only on the information contained in this prospectus and in any applicable prospectus supplement, including any information incorporated by reference. Neither we nor the Selling Securityholder has authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus or in any free writing prospectus made available by us. We and the Selling Securityholder take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

You should assume that the information appearing in this prospectus is accurate only as of the date on the cover of this prospectus and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since the date indicated on the cover page of such documents.

The distribution of this prospectus may be restricted by law in certain jurisdictions. You should inform yourself about and observe these restrictions. This prospectus does not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which the offer or solicitation is not authorized, or in which the person making the offer or solicitation is not qualified to do so, or to any person to whom it is unlawful to make the offer or solicitation.

WHERE YOU CAN FIND MORE INFORMATION

We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. Our filings with the SEC are also available to the public at the SEC’s website at www.sec.gov.

We also make available free of charge on our website at <https://www.eose.com/> all of the documents that we file with the SEC as soon as reasonably practicable after we electronically file such material with the SEC. Information contained on our website is not incorporated by reference into this prospectus.

This prospectus is part of a registration statement that we have filed with the SEC relating to the securities to be offered. This prospectus does not contain all of the information we have included in the registration statement and the accompanying exhibits and schedules in accordance with the rules and regulations of the SEC, and we refer you to the omitted information. The statements this prospectus makes pertaining to the content of any contract, agreement or other document that is an exhibit to the registration statement necessarily are summaries of their material provisions and do not describe all exceptions and qualifications contained in those contracts, agreements or documents. You should read those contracts, agreements or documents for information that may be important to you. The registration statement, exhibits and schedules are available through the SEC’s website.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference information in this document. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this document, except for any information that is superseded by information that is included directly in this document.

We are incorporating by reference the filings listed below and any additional documents that we may file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") on or after the date hereof and prior to the termination of any offering (other than documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024, filed with the SEC on March 4, 2025;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2025, filed with the SEC on May 6, 2025;
- information specifically incorporated by reference in our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2024 from our Definitive Proxy Statement on [Schedule 14A](#) filed with the SEC on March 27, 2025;
- our Current Reports on Form 8-K filed with the SEC on [January 27, 2025](#), [March 5, 2025](#) and [March 27, 2025](#) (except information furnished under item 7.01); and
- the description of our securities contained in [Exhibit 4.5](#) to our Annual Report [Form 10-K](#) for the fiscal year ended December 31, 2024, including any amendments or reports filed for the purpose of updating such description.

Any statement contained in this prospectus, or in a document incorporated or deemed to be incorporated by reference herein, shall be deemed to be modified or superseded to the extent that a statement contained herein, or in any subsequently filed document that also is incorporated or deemed to be incorporated by reference herein, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may also request copies of these documents, at no cost to you, from our website (<https://www.eose.com/>), or by writing or telephoning us at the following address:

Eos Energy Enterprises, Inc.
3920 Park Avenue
Edison, New Jersey 08820
Attn: General Counsel
(732) 225-8400

Exhibits to these documents will not be sent, however, unless those exhibits have been specifically incorporated by reference into this prospectus.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference into this prospectus contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “would” and similar expressions, as they relate to us, are intended to identify forward-looking statements. These statements appear in a number of places in this prospectus and the documents incorporated by reference herein, and include statements regarding the intent, belief or current expectations of the Company. Forward-looking statements are based on our management’s beliefs, as well as assumptions made by, and information currently available to, them. Because such statements are based on expectations as to future financial and operating results and are not statements of fact, actual results may differ materially from those projected. Factors which may cause actual results to differ materially from current expectations include, but are not limited to:

- changes adversely affecting the business in which we are engaged;
- our ability to forecast trends accurately;
- our ability to generate cash, service indebtedness and incur additional indebtedness;
- our ability to raise financing in the future;
- our customer’s ability to secure project financing;
- risks associated with the Credit Agreement, including risks of default, dilution of outstanding Common Stock, consequences for failure to meet milestones and contractual lockup of shares;
- the amount of final tax credits available to our customers or to the Company pursuant to the Inflation Reduction Act including potential impacts from any repeal or modification of the legislation;
- the timing and availability of future funding under the Department of Energy Loan Facility;
- our ability to continue to develop efficient manufacturing processes to scale and to forecast related costs and efficiencies accurately;
- fluctuations in our revenue and operating results;
- competition from existing or new competitors;
- our ability to convert firm order backlog and pipeline to revenue;
- risks associated with security breaches in our information technology systems;
- risks related to legal proceedings or claims;
- risks associated with evolving energy policies in the United States and other countries and the potential costs of regulatory compliance;
- risks associated with changes to the U.S. trade environment;
- our ability to maintain the listing of our shares of Common Stock on Nasdaq;
- our ability to grow our business and manage growth profitably, maintain relationships with customers and suppliers and retain our management and key employees;
- risks related to adverse changes in general economic conditions, including inflationary pressures, increased interest rates and tariffs, sanctions or restrictions on imports or other trade barriers between the United States and various countries;
- risk from supply chain disruptions and other impacts of geopolitical conflict;
- changes in applicable laws or regulations; and
- other factors disclosed in “Part I, Item 1A. — Risk Factors” of the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed on March 4, 2025, any subsequently filed Quarterly Reports on Form 10-Q and any subsequently filed Current Report on Form 8-K (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K).

Should one or more of these risks or uncertainties materialize, they could cause our actual results to differ materially from the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and, except as required by law, the Company assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise.

SUMMARY

This summary highlights selected information and does not contain all of the information that is important to you. This summary is qualified in its entirety by the more detailed information included in or incorporated by reference into this prospectus. Before making your investment decision with respect to our securities, you should carefully read this entire prospectus, any applicable prospectus supplement and the documents referred to in "Where You Can Find More Information."

Overview

We are an American energy company and America's leading innovator in designing, manufacturing, and providing zinc-based battery energy storage systems ("BESS"), sourced, and manufactured in the United States. Our BESS are safe, non-flammable, secure, and sustainable alternatives to lithium-ion batteries, making them ideal for utility-scale, microgrid, and commercial and industrial long-duration applications.

We design, develop, manufacture, and market innovative zinc-based energy storage solutions for utility-scale, microgrid, and commercial & industrial ("C&I") applications. We believe that our batteries have the potential to emerge as a leading alternative to Lithium-ion batteries for such long-duration applications. We have developed a broad range of intellectual property with multiple patents covering unique battery chemistry, mechanical product design, energy block configuration and a software operating system (Battery Management System or "BMS"). The BMS software uses proprietary Eos-developed algorithms and includes ambient and battery temperature sensors, as well as voltage and electric current sensors for the electrical strings and the system. We currently focus on manufacturing and selling turn-key direct current ("DC") battery energy storage systems. We plan to develop a turn-key alternating current system. Our primary applications focus on integrating battery storage solutions with: (1) renewable energy systems that are connected to the utility power grid; (2) renewable energy systems that are not connected to the utility power grid; (3) storage systems utilized to relieve congestion; and (4) storage systems to assist C&I customers in reducing their peak energy usage or participating in the utilities ancillary and demand response markets. We have a manufacturing facility in Turtle Creek, Pennsylvania to produce DC energy blocks with an integrated BMS. Our primary market is North America. The Company has one operating and reportable segment.

We offer an innovative Znyth™ technology BESS designed to provide the operating flexibility to manage increased grid complexity and price volatility resulting from an overall increase in renewable energy generation and a congested grid coming from an increase in electricity demand growth. Our BESS is a validated chemistry with accessible non-precious earth components in a durable design that is intended to deliver results in extreme temperatures and conditions. The system is designed to be safe, flexible, scalable, sustainable and manufactured in the United States using raw materials primarily sourced in the United States. We believe the Company's Z3™ battery module is the core of its innovative systems. The Z3 battery module is the only U.S. designed and manufactured battery module that today provides utilities, independent power producers, renewables developers and C&I customers with an alternative to lithium-ion and lead-acid monopolar batteries for critical 3- to 12-hour or longer discharge duration applications. We believe the Z3 battery is transforming how utility, industrial and commercial customers store power.

In addition to its BESS, we currently offer: (a) a BMS which provides a remote asset monitoring capability and service to track the performance and health of our BESS and to proactively identify future system performance issues through predictive analytics; (b) project management services to ensure the process of implementing our BESS are coordinated in conjunction with the customer's overall project plans; (c) commissioning services that ensure the customer's installation of the BESS meets the performance expected by the customer; and (d) long-term maintenance plans to maintain optimal operating performance of our systems.

Corporate Information

We were incorporated in Delaware in June 2019 as a blank check company under the name B. Riley Principal Merger Corp. II. In connection with its business combination on November 16, 2020, we changed our name to Eos Energy Enterprises, Inc.

Additional Information

The mailing address of our principal executive office is 3920 Park Avenue, Edison, NJ 08820, and our phone number is (732) 225-8400. Our corporate website address is <https://www.eose.com/>. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only, and are not hyperlinks.

ABOUT THIS OFFERING

Issuer	Eos Energy Enterprises, Inc.
Shares of Common Stock Offered and Sold from Time to Time by the Selling Securityholder	This prospectus relates to the offer and sale by the selling securityholder of an aggregate of 158,433,112 shares of Common Stock underlying the Series B Preferred Stock and issuable upon exercise of the Warrant issued in connection with the Purchase Agreement.
Use of Proceeds	We will not receive any proceeds from the sale of the Common Stock offered under this prospectus, except with respect to amounts received by us upon the exercise of the Warrant for cash. Any proceeds from the sale of Common Stock under this prospectus will be received by the selling securityholder. We will pay all expenses related to this offering, other than underwriting discounts and commissions related to the shares of Common Stock sold by the selling securityholder.
Market for Common Stock	Our Common Stock and public warrants are listed on Nasdaq under the symbol "EOSE" and "EOSEW," respectively.
Risk Factors	An investment in our securities involves a significant degree of risk. Before you invest in our securities you should carefully consider those risk factors described under, but not limited to, the heading "Risk Factors" in our most recent Annual Report on Form 10-K, any subsequently filed Quarterly Reports on Form 10-Q and any subsequently filed Current Reports on Form 8-K (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K), which are incorporated herein by reference, and those risk factors that may be included in any applicable prospectus supplement, together with all of the other information included in this prospectus, any prospectus supplement and the documents we incorporate by reference, in evaluating an investment in our securities. If any of these risks were actually to occur, our business, financial condition or results of operations could be materially adversely affected. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations and financial condition. Please read " <i>Special Note Regarding Forward-Looking Statements.</i> "

RISK FACTORS

An investment in our securities involves a significant degree of risk. Before you invest in our securities you should carefully consider those risk factors described under, but not limited to, the heading “*Risk Factors*” in our most recent Annual Report for the year ended December 31, 2024 on Form 10-K, any subsequently filed Quarterly Reports on Form 10-Q and any subsequently filed Current Reports on Form 8-K (excluding any information furnished pursuant to Item 2.02 or Item 7.01 on any Current Report on Form 8-K), which are incorporated herein by reference, and those risk factors that may be included in any applicable prospectus supplement, together with all of the other information included in this prospectus, any prospectus supplement and the documents we incorporate by reference, in evaluating an investment in our securities. If any of these risks were actually to occur, our business, financial condition or results of operations could be materially adversely affected. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations and financial condition. Please read “*Special Note Regarding Forward-Looking Statements*.”

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Common Stock offered under this prospectus, except with respect to amounts received by us upon the exercise of the Warrant for cash. Any proceeds from the sale of Common Stock under this prospectus will be received by the Selling Securityholder. We will pay all expenses related to this offering, other than underwriting discounts and commissions related to the shares of Common Stock sold by the Selling Securityholder.

DESCRIPTION OF CAPITAL STOCK

The following is a description of the material terms of, and is qualified in its entirety by, our certificate of incorporation and amended and restated bylaws. These documents are filed as exhibits and incorporated by reference into the registration statement of which this prospectus forms a part.

The Company's certificate of incorporation authorizes the issuance of 601,000,000 shares of capital stock, consisting of (x) 600,000,000 authorized shares of Common Stock and (y) 1,000,000 authorized shares of preferred stock, par value \$0.0001 per share. As of May 6, 2025, there were 227,591,165 shares of Common Stock outstanding. As of May 6, 2025, 59 shares of preferred stock were designated as Series A-1 Preferred Stock, none of which are outstanding; 7 shares of preferred stock were designated as Series A-2 Preferred Stock, none of which are outstanding; 31.940063 shares of preferred stock were designated as Series B-1 Preferred Stock, all of which are outstanding; 28.806463 shares of preferred stock were designated as Series B-2 Preferred Stock, all of which are outstanding; 38.259864 shares of preferred stock were designated as Series B-3 Preferred Stock, all of which are outstanding and 16.150528 shares of preferred stock were designated as Series B-4 Preferred Stock, all of which are outstanding. There is no cumulative voting with respect to the election of directors.

Common Stock

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of Common Stock possess all voting power for the election of our directors and all other matters requiring stockholder action and will at all times vote together as one class on all matters submitted to a vote of the stockholders. Holders of Common Stock are entitled to one vote per share on matters to be voted on by stockholders.

Dividends

Holders of Common Stock are entitled to receive such dividends and other distributions, if any, as may be declared from time to time by our board of directors (the "Board") in its discretion out of funds legally available therefor and shall share equally on a per share basis in such dividends and distributions.

Liquidation, Dissolution and Winding Up

In the event of our voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of Common Stock will be entitled to receive an equal amount per share of all of our assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock have been satisfied and after payment or provision for payment of our debts and other liabilities.

Preemptive or Other Rights

Our stockholders have no preemptive or other subscription rights and there is no sinking fund or redemption provisions applicable to Common Stock.

Election of Directors

The Board is divided into three (3) classes with only one class of directors being elected in each year and each class serving a three (3) year term. The directors hold their office for a term of three (3) years or until their respective successors are elected and qualified, subject to such director's earlier death, resignation, disqualification or removal.

Transfer Agent and Registrar

The transfer agent and registrar for our Common Stock is Continental Stock Transfer & Trust Company.

Preferred Stock

Our certificate of incorporation provides that shares of preferred stock may be issued from time to time in one or more series. Our Board is authorized to fix the voting rights, if any, designations, powers, preferences, the relative, participating, optional or other special rights and any qualifications, limitations and restrictions thereof, applicable to the shares of each series. Our Board may, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of the Common Stock and could have anti-takeover effects. The ability of our Board to issue preferred stock without stockholder approval could have the effect of delaying, deferring or preventing a change of control of the Company or the removal of existing management.

Series A-1 Preferred Stock

On June 21, 2024, the Company filed with the Secretary of State of the State of Delaware the Certificate of Designation of Series A-1 Non-Voting Non-Convertible Preferred Stock (the “Series A-1 Certificate of Designation”) and issued 59 shares of Series A-1 Preferred Stock to satisfy the terms of the Credit Agreement. Under the terms of the Series A-1 Certificate of Designation, each share of Series A-1 Preferred Stock had an original issue price of \$455,822.59 and such shares had a liquidation value, payable with the Common Stock, as if such shares were convertible into an aggregate of 31,940,063 shares of Common Stock, subject to adjustment. The Series A-1 Preferred Stock was non-voting and non-convertible into Common Stock. Holders of the Series A-1 Preferred Stock were entitled to receive dividends or distributions on each share of Series A-1 Preferred Stock equal to dividends or distributions actually paid on each share of Common Stock, multiplied by the number of shares of Common Stock represented by the Series A-1 Preferred Stock Liquidation Value (as defined in the Series A-1 Certificate of Designation). The 59 shares of Series A-1 Preferred Stock issued to CCM Denali Equity converted into shares of Series B-1 Preferred Stock on September 12, 2024. The foregoing summary of the terms of the Series A-1 Preferred Stock is qualified in its entirety by the Series A-1 Certificate of Designation, which is filed as an exhibit to the registration statement of which this prospectus forms a part.

Series A-2 Preferred Stock

On August 29, 2024, the Company filed with the Secretary of State of the State of Delaware the Certificate of Designation of Series A-2 Non-Voting Non-Convertible Preferred Stock (the “Series A-2 Certificate of Designation”). Under the terms of the Series A-2 Certificate of Designation, each share of Series A-2 Preferred Stock had an original issue price of \$9,555,515.30 and such shares had a liquidation value, payable pari passu with the Common Stock, as if such shares were convertible into an aggregate of 28,806,463 shares of Common Stock, subject to adjustment. The Series A-2 Preferred Stock was non-voting and non-convertible into Common Stock. Holders of the Series A-2 Preferred Stock were entitled to receive dividends or distributions on each share of Series A-2 Preferred Stock equal to dividends or distributions actually paid on each share of Common Stock, multiplied by the number of shares of Common Stock represented by the Series A-2 Preferred Stock Liquidation Value (as defined in the Series A-2 Certificate of Designation). The Series A-2 Preferred Stock terms were substantially identical to the Series A-1 Preferred Stock. On August 29, 2024, pursuant to the terms and conditions of the Credit Agreement, the Applicable Percentage increased by 4.9%, and as a result the Company issued to CCM Denali Equity 7 shares of Series A-2 Preferred Stock. On September 12, 2024, the 7 shares of Series A-2 Preferred Stock issued to CCM Denali Equity converted into shares of Series B-2 Preferred Stock. The foregoing summary of the terms of the Series A-2 Preferred Stock is qualified in its entirety by the Series A-2 Certificate of Designation, which is filed as an exhibit to the registration statement of which this prospectus forms a part.

Series B Preferred Stock

On September 11, 2024, the Company filed with the Secretary of State of the State of Delaware the Certificate of Designation of Series B-1 Non-Voting Convertible Preferred Stock and the Certificate of Designation of Series B-2 Non-Voting Convertible Preferred Stock. On November 1, 2024, the Company filed with the Secretary of State of the State of Delaware the Certificate of Designation of Series B-3 Non-Voting Convertible Preferred Stock. On January 24, 2025, the Company filed with the Secretary of State of the State of Delaware the Certificate of Designation of Series B-4 Non-Voting Convertible Preferred Stock. Each share of Series B Preferred Stock has a par value of \$0.0001 per share. The table below summarizes the Company’s outstanding Series B Preferred Stock as of May 6, 2025.

Series	Issuance Date	Shares Issued	Original Issue Price Per Share	Shares Outstanding	Common Stock Equivalent
Series B-1 Preferred Stock	9/12/2024	31.940063	\$ 841,999.99	31.940063	31,940,063
Series B-2 Preferred Stock	9/12/2024	28.806463	\$ 2,322,000	28.806463	28,806,463
Series B-3 Preferred Stock	11/1/2024	38.259864	\$ 3,358,000	38.259864	38,259,864
Series B-4 Preferred Stock	1/24/2025	16.150528	\$ 5,990,000	16.150528	16,150,528

Conversion Rights

The Series B Preferred Stock is convertible into Common Stock at a conversion ratio of 1.0 million shares of Common Stock per share of Series B Preferred Stock (“Conversion Ratio”). The Conversion Ratio is subject to antidilution protection that is triggered if the Company issues equity for a price per share that is less than the conversion price then in effect, subject to certain exceptions.

Dividends

Holders of the Series B Preferred Stock are entitled to receive dividends or distributions on each share of Series B Preferred Stock equal to dividends or distributions actually paid on each share of Common Stock on an as-converted basis.

Appointment of Directors

At all times when the holders of the Series B Preferred Stock beneficially own at least 10%, 15% or 30% of the capital stock of the Company, the holders of the Series B Preferred Stock, exclusively and voting together as a separate class, will have the right to appoint a maximum of 1, 2 or 3 directors to the Board, respectively. At all times when the holders of the Series B Preferred Stock beneficially own at least 40% of the capital stock of the Company, the holders of the Series B Preferred Stock, exclusively and voting together as a separate class, will have the right to nominate and designate a fourth director, who shall be designated by the Board or the nominating committee of the Board to a class of common directors and thereafter stand for election as a common director on the Board. The holders of the Series B Preferred Stock will have the right to nominate a fourth director to the Board only if such appointment does not result in a change of control under any Company governing documents or violate any applicable laws, including requirements of the SEC and Nasdaq, and any such fourth director appointment shall be subject to and conditioned upon compliance by the holders of the Series B Preferred Stock with the Hart-Scott-Rodino Antitrust Improvements Act of 1976, including the submission of any required filings and the expiration or termination of any applicable waiting periods.

Preemptive Rights

The certificates of designations for the Series B Preferred Stock contain customary preemptive rights that permit the holders of Series B Preferred Stock to participate in certain future equity offerings by the Company.

Rights to Distributions Upon Liquidation of the Company

In the event of a voluntary or involuntary liquidation, dissolution, or winding up of the Company, the holders of the Series B Preferred Stock are entitled to receive distribution of any of the assets or surplus funds of the Company pro rata with the holders of the Common Stock and any other holders of the preferred stock of the Company issued pursuant to the Purchase Agreement and the Credit Agreement, including the Series B Preferred Stock, in an amount equal to such amount per share as would have been payable had all shares of Series B Preferred Stock been converted to Common Stock.

Protective Provisions

The Company is prohibited from taking certain actions that could adversely affect the rights of the Preferred Stock without the affirmative vote of a majority of the outstanding shares of Preferred Stock until the later of (i) such time when the holders of Series B Preferred Stock shall no longer beneficially own at least 5% of the outstanding capital stock of the Corporation and (ii) June 21, 2029, in the case of the Series B-1 Preferred Stock, August 29, 2029, in the case of the Series B-2 Preferred Stock, November 1, 2029, in the case of the Series B-3 Preferred Stock, or January 24, 2030, in the case of the Series B-4 Preferred Stock.

Redemption Rights

At any time after June 21, 2029, in the case of the Series B-1 Preferred Stock, August 29, 2029, in the case of the Series B-2 Preferred Stock, November 1, 2029, in the case of the Series B-3 Preferred Stock or January 24, 2030, in the case of the Series B-4 Preferred Stock, the outstanding shares of Series B Preferred Stock held by any holder become redeemable for cash at the redemption price. The redemption price will be an amount per share equal to the greater of (i) \$841,999.99 for the Series B-1 Preferred Stock, \$2,322,000 for the Series B-2 Preferred Stock, \$3,358,000 for the Series B-3 Preferred Stock or \$5,990,000 for the Series B-4 Preferred Stock, as applicable, plus all accrued and unpaid dividends thereon, up to and including the date of redemption and (ii) the number of shares of Common Stock issuable upon conversion of the applicable Series B Preferred Stock multiplied by the average of the closing sale price of the Common Stock for the five (5) business days immediately prior to the date of redemption plus all accrued and unpaid dividends thereon, up to and including the date of redemption.

The foregoing summary of the terms of the Series B Preferred Stock is qualified in its entirety by the terms of the respective Series B Certificate of Designation, each of which is filed as an exhibit to the registration statement of which this prospectus forms a part.

Purchase Agreement Warrant

Under the Purchase Agreement, the Company issued the Warrant to purchase 43,276,194 shares of Common Stock. The Warrant has a ten-year term and a \$0.01 per share exercise price. The Warrant includes anti-dilutive rights, subject to certain excluded issuances, in the event any shares of Common Stock, options, warrants, convertible securities or other equity or equity equivalent securities payable in Common Stock are issued at a price per share of less than the fair market value (as defined in the Warrant) of a share of Common Stock on the issuance date of the Warrant, subject to adjustment. Following stockholder approval on September 10, 2024, the warrant conversion cap increased to 49.9% of the number of shares of Common Stock issued and outstanding as of the applicable measurement date; provided that, following such stockholder approval, the holder of the Warrant has the option to amend the warrant conversion cap to any percentage less than 49.9%.

The Warrant is exercisable at the holder's discretion for cash or on a cashless basis. The Warrant is subject to automatic cashless exercise on the expiration date if the fair market value (as defined in the Warrant) of one share is greater than the exercise price then in effect. Upon an acceleration under the Credit Agreement, the Company will be required to purchase the Warrant from the holder at an amount equal to the closing sale price (as defined in the Warrant) less the warrant price at the request of the holder.

The foregoing summary of the terms of the Warrant is qualified in its entirety by the Warrant, which is set out in Exhibit C to the Purchase Agreement, whereas the Purchase Agreement is filed as an exhibit to the registration statement of which this prospectus forms a part.

Certain Anti-Takeover Provisions of Delaware Law, the Company's Certificate of Incorporation and Bylaws

The certificate of incorporation, bylaws and the Delaware General Corporation Law, or DGCL, contain provisions that could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our Board. These provisions could also make it difficult for stockholders to take certain actions, including electing directors who are not nominated by the members of our Board or taking other corporate actions, including effecting changes in our management. For instance, our Board will be empowered to elect a director to fill a vacancy created by the expansion of the Board or the resignation, death, or removal of a director in certain circumstances; and our advance notice provisions in our bylaws will require that stockholders must comply with certain procedures in order to nominate candidates to our Board or to propose matters to be acted upon at a stockholders' meeting.

Our authorized but unissued Common Stock and preferred stock will be available for future issuances without stockholder approval and could be utilized for a variety of corporate purposes, including future offerings to raise additional capital, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved Common Stock and preferred stock could render more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

The Company, in its certificate of incorporation, has expressly elected not to be governed by Section 203 of the DGCL, and thus the restrictions on business combinations contained in Section 203 of the DGCL do not apply to the Corporation.

Classified Board of Directors

Our Board is divided into three classes, each of which will generally serve for a term of three years with only one class of directors being elected in each year. This system of electing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Directors' Liability; Indemnification of Directors and Officers

Our certificate of incorporation limits the liability of our directors to the fullest extent permitted by the DGCL and provides that we will provide them with customary indemnification. We entered into customary indemnification agreements with each of our executive officers and directors that provide them, in general, with customary indemnification in connection with their service to us or on our behalf.

Securities Exchange

Our Common Stock and public warrants are listed on Nasdaq under the symbol "EOSE" and "EOSEW," respectively.

SELLING SECURITYHOLDER

The Selling Securityholder named below may offer and sell from time to time in the future up to an aggregate of 158,433,112 shares of Common Stock that may be issued upon exercise of the Warrant and conversion of the Series B Preferred Stock. The term “Selling Securityholder” includes the securityholder listed in the table in this section and its permitted transferees, pledgees, donees, assignees or other successors.

We are filing this prospectus pursuant to the Purchase Agreement. Pursuant to the Purchase Agreement, we will pay all expenses relating to the offering of these shares of Common Stock, except that the Selling Securityholder will pay any underwriting discounts or commissions. We will indemnify the Selling Securityholder against liabilities, including liabilities under the Securities Act. We may be indemnified by the Selling Securityholder against civil liabilities, including liabilities under the Securities Act, which may arise from any written information furnished to us by the Selling Securityholder specifically for use in this prospectus.

Pursuant to the Purchase Agreement, the Selling Securityholder has agreed to, subject to certain customary exceptions, contractual lock-up restrictions on transfers of any securities of the Company. The lock-up restrictions expire on June 21, 2025.

The table below sets forth information as of May 6, 2025 regarding the beneficial ownership of shares of Common Stock held by the Selling Securityholder and the number of shares of Common Stock that may from time to time be offered or sold pursuant to this prospectus. Beneficial ownership is determined in accordance with the rules and regulations of the SEC. As of May 6, 2025, we had 227,591,165 shares of Common Stock outstanding. The information regarding shares of Common Stock beneficially owned after the offering assumes the sale of all shares of Common Stock offered by the Selling Securityholder and that the Selling Securityholder does not acquire any additional shares of Common Stock. Information in the table below is based on information filed with the SEC or obtained from the Selling Securityholder named below.

Information concerning the Selling Securityholder may change from time to time and any changed information may be set forth in supplements to this prospectus, if and when necessary. The Selling Securityholder may offer all, some or none of its shares of Common Stock. We cannot advise you as to whether the Selling Securityholder will in fact sell any or all of such shares of Common Stock. In addition, the Selling Securityholder listed in the table below may have sold, transferred or otherwise disposed of, or may sell, transfer or otherwise dispose of, at any time and from time to time, shares of Common Stock in transactions exempt from the registration requirements of the Securities Act after the date on which it provided the information set forth in the table below.

Name of Selling Securityholder	Shares of Common Stock Beneficially Owned Prior to this Offering	Number of Shares of Common Stock Being Sold (2)	Shares of Common Stock Beneficially Owned After this Offering	Percentage of Common Stock Beneficially Owned	
				Before Offering(3)	After Offering (Assuming All Shares Registered Hereunder Are Sold)
CCM Denali Equity Holdings, LP (1)	158,433,112	158,433,112	—	41.0%	—%

* Subject to contractual lock-up restrictions which expire after June 21, 2025.

- (1) Includes 43,276,194 shares of Common Stock of the Company issuable upon exercise of the Warrant, 31,940,063 shares of Common Stock of the Company issuable upon conversion of 31.940063 shares of Series B-1 Preferred Stock, 28,806,463 shares of Common Stock of the Company issuable upon conversion of 28.806463 shares of Series B-2 Preferred Stock, 38,259,864 shares of Common Stock of the Company issuable upon conversion of 38.259864 shares of Series B-3 Preferred Stock, and 16,150,528 shares of Common Stock of the Company issuable upon conversion of 16.150528 shares of Series B-4 Preferred Stock that is directly held by CCM Denali Equity. CCM Denali Equity Holdings GP, LLC (“CCM Denali Equity GP”) is the general partner of CCM Denali Equity. Cerberus Capital Management II, L.P. (“Cerberus Capital Management II”) is the sole member of CCM Denali Equity GP. Due to their relationships with CCM Denali Equity, each of CCM Denali Equity GP and Cerberus Capital Management II may be deemed to beneficially own the securities of the Company held directly by CCM Denali Equity. The address for each of CCM Denali Equity, CCM Denali Equity GP and Cerberus Capital Management II is 875 Third Avenue, 11th Floor, New York, NY 10022.
- (2) Assumes the Selling Securityholder disposes of all of the shares of Common Stock covered by this prospectus and does not acquire beneficial ownership of any additional shares of Common Stock.
- (3) Percentage of beneficial ownership is based upon 227,591,165 shares of Common Stock outstanding as of May 6, 2025. Because the Selling Securityholder is not obligated to sell any portion of our shares of Common Stock shown as offered by them, we cannot estimate the actual number or percentage of our shares of Common Stock that will be held by the Selling Securityholder upon completion of this offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the securities covered by this prospectus will be held by the Selling Securityholder.

Material Relationships with Selling Securityholder

On June 21, 2024, the Company entered into the (i) Credit Agreement by and among the Company, the guarantors party thereto, the lenders party thereto and CCM Denali Debt and (ii) the Purchase Agreement with CCM Denali Equity, pursuant to which the lenders have provided a \$210.5 million Delayed Draw Term Loan, and in their discretion may provide, a \$105 million revolving credit facility, on terms and subject to conditions set forth in the Credit Agreement.

On April 30, 2025, the Company entered into that certain First Amendment to Credit and Guaranty Agreement, by and among the Company, certain of the Company's subsidiaries as guarantors thereto and the Lenders, pursuant to which, the measurement period for achieving Sales Milestone 4 (as defined in the Credit Agreement) was extended until July 31, 2025. On April 30, 2025, the Company and CCM Denali Debt mutually agreed that the Company achieved three of the four Fourth Milestone Components (as defined in the Credit Agreement) related to the Company's materials cost, Z3 technology and automated line. No additional preferred stock or warrants will be issued to CCM Denali Equity related to the three Fourth Milestone Components achieved by the Company. With this achievement, the Company has achieved, to date, a total of fifteen of the sixteen possible Milestone Components (as defined in the Credit Agreement). If the Company fails to meet Sales Milestone 4 on July 31, 2025, then the Applicable Percentage is subject to up to a final 1% increase, and as a result CCM Denali Equity would be entitled to receive preferred stock or warrants up to a maximum aggregate Applicable Percentage of 34.0% (as compared to the original maximum adjustment for all four Milestones of up to 49.0%), or assuming the number of the Company's outstanding shares of common stock on a fully diluted basis does not change after April 30, 2025, preferred stock and warrants with respect to an aggregate of 166,645,514 shares of common stock, including the securities already issued to CCM Denali Equity.

In connection with the Purchase Agreement, the Company agreed to file the registration statement of which this prospectus forms a part, registering for resale all of the "Registrable Securities" (as such term is defined in the Purchase Agreement) in accordance with the terms of the Registration Rights Agreement.

The Selling Securityholder also has the right, in the event that it holds Registrable Securities that are not registered for resale on a delayed or continuous basis, to request the Company to cause the resale of such Registrable Securities to be covered by either, at the Company's option, any then available registration statement (including by means of a post-effective amendment) or by filing a subsequent registration statement.

Pursuant to the Purchase Agreement, the Selling Securityholder has agreed to, subject to certain customary exceptions, contractual lock-up restrictions on transfers of any securities of the Company. The lock-up restrictions expire after June 21, 2025.

As set forth in the certificates of designation governing the Series B Preferred Stock, at all times when holders of preferred stock of the Company (the "Investor Preferred Stock"), beneficially own at least 10.0%, 15.0% or 30.0% of the capital stock of the Company, such holders of Investor Preferred Stock, exclusively and voting together as a separate class, have the right to appoint one (1), two (2) or three (3) preferred directors (the "Preferred Directors"), respectively, to the Board. At all times holders of the Investor Preferred Stock beneficially own at least 40.0% of the capital stock of the Company, such holders of the Investor Preferred Stock, exclusively and voting together as a separate class, will have the right to nominate and designate a fourth director, who shall be designated by the Board or the nominating committee of the Board to a class of directors elected by the holders of the Common Stock and thereafter stand for election as a director on the Board elected by the holders of the Common Stock; provided that, the nominating committee of the Board determines that such appointment of the fourth director not result in a change of control under any Company governing documents or violate any applicable laws, including requirements of the SEC and Nasdaq. Any such fourth director's appointment shall be subject to and conditioned upon compliance by the holders of the Investor Preferred Stock with the Hart-Scott-Rodino Antitrust Improvements Act of 1976, including the submission of any required filings and the expiration or termination of any applicable waiting periods, which have expired. In the event that any such fourth director is not approved by the holders of Common Stock of the Company at the applicable annual meeting of stockholders, the holders of record of the shares of Investor Preferred Stock will have the right to appoint and elect a replacement for such director, pursuant to the approval requirements set forth above. To the extent any of such directors qualify to serve on any committees of the Board, for each such committee for which at least one (1) director is qualified, at least one (1) such director will be invited to serve on such committee of the Board. So long as the holders of Investor Preferred Stock have a right to appoint a director, the holders thereof will have the right to appoint a non-voting observer to the Board. At all times when the holders of Investor Preferred Stock have a right to appoint a director, the holders of Investor Preferred Stock shall not vote any shares of Common Stock they receive upon the conversion of any Investor Preferred Stock or the exercise of any warrants in any election of directors.

As of the date of this prospectus, the holders of Investor Preferred Stock have appointed Gregory Nixon, Nick Robinson and David Urban as Preferred Directors. As of the date of this prospectus, the holders of the Investor Preferred Stock have not exercised their right to nominate a fourth director to serve as a common director. The holders of Investor Preferred Stock may appoint replacement Preferred Directors at any time.

Any applicable prospectus supplement, amendment or other permissible disclosure document will also disclose whether the Selling Securityholder has held any position or office with, has been employed by or otherwise has had a material relationship with us during the three years prior to the date of the prospectus supplement.

DETERMINATION OF OFFERING PRICE

The Selling Securityholder will offer the Securities in amounts, at prices and on terms to be determined by market conditions at the time of the offerings.

PLAN OF DISTRIBUTION

We are registering 158,433,112 shares of Common Stock issuable upon conversion of the Series B Preferred Stock and issuable upon exercise of the Warrant issued in connection with the Purchase Agreement to permit the Selling Securityholder to resell such shares of Common Stock from time to time after the date of this prospectus. The Selling Securityholder may sell all or a portion of the shares of Common Stock beneficially owned by it from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of Common Stock are sold through underwriters or broker-dealers, the Selling Securityholder will be responsible for underwriting discounts or commissions or agent's commissions. The shares of Common Stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices.

We will not receive any of the proceeds from the sale of the shares of Common Stock by the Selling Securityholder. The aggregate proceeds to the Selling Securityholder will be the purchase price of the shares of Common Stock less any discounts and commissions borne by the Selling Securityholder.

We will bear all other costs, fees and expenses incurred in effecting the registration of the shares of Common Stock covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees and fees and expenses of our counsel and our independent registered public accountants.

The shares of Common Stock may be sold by any one or more of the following methods:

- through a firm commitment or best efforts underwriting;
- through a block trade (which may involve crosses) in which the Selling Securityholder's broker or dealer will attempt to sell the shares of Common Stock as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- through purchases by a broker or dealer as principal and resale by the broker or dealer for their account pursuant to this prospectus;
- through exchange distributions and/or secondary distributions in accordance with the rules of the Nasdaq;
- through ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- through privately negotiated transactions;
- through the distribution of the shares of Common Stock by the Selling Securityholder to its partners, members or stockholders;
- through the writing of options, swaps, forwards or other derivatives (including put or call options), whether the options, swaps or derivatives are listed on an options exchange or otherwise;
- through short sales;
- through "at the market" or through market makers or into an existing market for the shares of Common Stock;
- a combination of any such methods of sale; or

- through any other method permitted by applicable law.

In addition, the Selling Securityholder may from time to time sell the shares of Common Stock in compliance with Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements under the Securities Act, rather than pursuant to this prospectus. In such event, the Selling Securityholder may be required by the securities laws of certain states to offer and sell the shares of Common Stock only through registered or licensed brokers or dealers.

With respect to a particular offering of the shares of Common Stock held by the Selling Securityholder, to the extent required, an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is part, will be prepared and will set forth the following information:

- the specific the shares of Common Stock to be offered and sold;
- the names of the selling securityholders;
- the respective purchase prices and public offering prices, the proceeds to be received from the sale, if any, and other material terms of the offering;
- settlement of short sales entered into after the date of this prospectus;
- the names of any participating agents, broker-dealers or underwriters; and
- any applicable commissions, discounts, concessions and other items constituting compensation from us.

Any selling agents, underwriters or broker-dealers may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Securityholder, from purchasers of shares of Common Stock for whom they act as agents or from both sources. The Selling Securityholder do not expect these discounts, concessions or commissions to exceed what is customary in the types of transactions involved. The Selling Securityholder will be responsible for any commissions, underwriting discounts or similar charges on the sale of shares of Common Stock under this prospectus.

In connection with distributions of the shares of Common Stock or otherwise, the Selling Securityholder may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the shares of Common Stock in the course of hedging the positions they assume with the Selling Securityholder. The Selling Securityholder may also sell the shares of Common Stock short and redeliver the shares of Common Stock to close out such short positions. The Selling Securityholder may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of shares of Common Stock offered by this prospectus, which shares of Common Stock such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The Selling Securityholder may also pledge or grant a security interest in some or all of the shares of Common Stock it owns and, if the Selling Securityholder defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of Common Stock from time to time pursuant to a prospectus or any amendment to such prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending, if necessary, the list of Selling Securityholder to include the pledgee, transferee or other successors in interest as Selling Securityholder under such prospectus. The Selling Securityholder also may transfer and donate the shares of Common Stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of such prospectus.

The Selling Securityholder may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell shares of Common Stock covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use shares of Common Stock pledged by the Selling Securityholder or borrowed from the Selling Securityholder or others to settle those sales or to close out any related open borrowings of stock, and may use shares of Common Stock received from the Selling Securityholder in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment).

The Selling Securityholder and any broker-dealers, agents and underwriters that participate in the distribution of the shares of Common Stock may be deemed to be “underwriters” within the meaning of the Securities Act in connection with the sales. Any commissions, and any profit on the resale of shares of Common Stock, received by the Selling Securityholder and any such broker-dealers, agents or underwriters may be deemed to be underwriting discounts and commissions. Any underwriters, brokers, dealers and agents who participate in any sale of the shares of Common Stock may also engage in transactions with, or perform services for, us or our affiliates in the ordinary course of their businesses.

The Selling Securityholder will be subject to applicable provisions of the Exchange Act, and the associated rules and regulations thereunder, including Regulation M, which provisions may affect the marketability of the shares of Common Stock.

We have agreed to indemnify the Selling Securityholder against certain liabilities, including certain liabilities under the Securities Act, the Exchange Act or other federal or state law. Agents, broker-dealers and underwriters may be entitled to indemnification by us and the Selling Securityholder against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents, broker-dealers or underwriters may be required to make in respect thereof.

The anticipated date of delivery of the shares of Common Stock offered by this prospectus will be described in the applicable prospectus supplement relating to the offering. There can be no assurances that the Selling Securityholder will sell, nor is the Selling Securityholder required to sell, any or all of the share of Common Stock offered under this prospectus.

LEGAL MATTERS

Haynes and Boone, LLP will pass upon the validity of the shares of Common Stock of the Company offered by this prospectus. In connection with particular offerings of the shares of Common Stock in the future, and if stated in the applicable prospectus supplement, the validity of those shares of Common Stock may be passed upon for us by Haynes and Boone, LLP, and for any underwriters or agents by counsel named in the applicable prospectus supplement.

EXPERTS

The financial statements of Eos Energy Enterprises, Inc., incorporated by reference in this prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given their authority as experts in accounting and auditing.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses payable in connection with the offering of the shares of Common Stock being registered, all of which will be paid by the registrant (except any underwriting discounts and commissions and expenses incurred by the Selling Securityholder in disposing of the shares of Common Stock).

	Amount to Be Paid
Registration fee	\$ 120,795.43
Printing expenses	*
Legal fees and expenses (including Blue Sky fees)	*
Accounting fees and expenses	*
Trustee and transfer agent and registrar fees and expenses	*
Miscellaneous	*
Total	\$ 120,795.43

* To be provided in one or more prospectus supplements filed hereunder.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law, or DGCL, provides that a corporation may indemnify directors and officers as well as other employees and individuals against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent to the registrant. The DGCL provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise. Our bylaws provide for indemnification by the registrant of its directors, officers and employees to the fullest extent permitted by the DGCL. The registrant has entered into indemnification agreements with each of its current directors and executive officers to provide these directors and executive officers additional contractual assurances regarding the scope of the indemnification set forth in the registrant's certificate of incorporation and by-laws and to provide additional procedural protections. There is no pending litigation or proceeding involving a director or executive officer of the registrant for which indemnification is sought.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock purchases, redemptions or other distributions, or (iv) for any transaction from which the director derived an improper personal benefit. Our certificate of incorporation provides for such limitation of liability.

We maintain standard policies of insurance under which coverage is provided (a) to its directors and officers against loss rising from claims made by reason of breach of duty or other wrongful act, and (b) to us with respect to payments which may be made by the registrant to such officers and directors pursuant to the above indemnification provision or otherwise as a matter of law.

Item 16. Exhibits

(a) The following exhibits are included or incorporated by reference in this registration statement on Form S-3:

Exhibit Number	Description of Document	Incorporated by Reference			
		Schedule/ Form	File Number	Exhibit	Filing date
2.1	Agreement and Plan of Merger, dated as of September 7, 2020, by and among the Company, BMRG Merger Sub, LLC, BMRG Merger Sub II, LLC, Eos Energy Storage LLC, New Eos Energy LLC and AltEnergy Storage VI, LLC (incorporated by reference to Exhibit 2.1 of the Registrant's Current Report on Form 8-K filed with the SEC on September 8, 2020)	Form 8-K	File No. 001-39291	2.1	September 8, 2020
4.1	Third Amended and Restated Certificate of Incorporation of the Company, as amended	Form 10-K	File No. 001-39291	3.1	February 28, 2023
4.2	Second Amended and Restated Bylaws of the Company	Form 8-K	File No. 001-39291	3.1	May 19, 2022
4.3	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation of the Company, as amended	Form 10-Q	File No. 001-39291	3.2	May 14, 2024
4.4	Series A-1 Preferred Stock Certificate of Designation	Form 8-K	File No. 001-39291	3.1	June 24, 2024
4.5	Series A-2 Preferred Stock Certificate of Designation	Form 8-K	File No. 001-39291	3.1	August 30, 2024
4.6	Certificate of Designation of Series B-1 Non-Voting Convertible Preferred Stock	Form 8-K	File No. 001-39291	3.1	September 12, 2024
4.7	Certificate of Designation of Series B-2 Non-Voting Convertible Preferred Stock	Form 8-K	File No. 001-39291	3.2	September 12, 2024
4.8	Certificate of Designation of Series B-3 Non-Voting Convertible Preferred Stock	Form 8-K	File No. 001-39291	3.1	November 4, 2024
4.9	Certificate of Designation of Series B-4 Non-Voting Convertible Preferred Stock	Form 8-K	File No. 001-39291	3.1	January 27, 2025
4.10	Specimen Common Stock Certificate	Form 8-K	File No. 001-39291	4.1	November 20, 2020
4.11	Specimen Warrant Certificate	Form 8-K	File No. 001-39291	4.2	November 20, 2020
4.12	Eos Energy Enterprises, Inc. 5%/6% Convertible Senior PIK Toggle Note due 2026	Form 8-K	File No. 001-39291	4.1	July 7, 2021
4.13	Warrant Agreement, dated May 19, 2020, by and between the Registrant and Continental Stock Transfer & Trust Company	Form 8-K	File No. 001-39291	4.1	May 22, 2020
4.14	Description of Securities	Form 10-K	File No. 001-39291	4.5	February 25, 2022
4.15	Indenture, dated April 7, 2022, between the Company and Wilmington Trust, National Association, as trustee (incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on April 13, 2022)	Form 8-K	File No. 001-39291	10.1	April 13, 2022

4.16	Form of Note (including Indenture incorporated by reference therein)	Form 8-K	File No. 001-39291	4.1	January 19, 2023
4.17	Form of Common Stock Purchase Warrant, dated as of April 12, 2023	Form 8-K	File No. 001-39291	4.1	April 14, 2023
4.18	Form of Common Stock Purchase Warrant, dated as of May 15, 2023	Form 8-K	File No. 001-39291	4.1	May 17, 2023
4.19	Indenture, dated May 25, 2023, between the Company and Wilmington Trust, National Association, as trustee	Form 8-K	File No. 001-39291	4.1	May 25, 2023
4.20	Form of Note, dated as of May 25, 2023	Form 8-K	File No. 001-39291	4.2	May 25, 2023
4.22	Form of Common Stock Purchase Warrant	Form 8-K	File No. 001-39291	4.1	December 15, 2023
4.23	Form of Warrant	Form 8-K	File No. 001-39291	10.3	June 24, 2024
5.1*	Opinion of Haynes and Boone, LLP				
10.1#†	Credit Agreement, dated June 21, 2024, by and between Eos Energy Enterprises, Inc. and CCM Denali Debt.	Form 8-K	File No. 001-39291	10.1	June 24, 2024
10.2#†	Securities Purchase Agreement, dated June 21, 2024, by and between Eos Energy Enterprises, Inc. and CCM Denali Equity.	Form 8-K	File No. 001-39291	10.2	June 24, 2024
10.3	Form of Indemnification Agreement for Preferred Stock directors	Form 8-K	File No. 001-39291	10.6	June 24, 2024
10.4#†	Amendment to Credit Agreement, dated November 26, 2024, by and between Eos Energy Enterprises, Inc. and CCM Denali Debt.	Form 8-K	File No. 001-39291	10.4	December 3, 2024
10.5#	First Amendment to Credit and Guaranty Agreement, dated April 30, 2025, by and between Eos Energy Enterprises, Inc. and Cerberus US Servicing, LLC	Form 10-Q	File No. 001-39291	10.3	May 6, 2025
23.1*	Consent of Haynes and Boone, LLP (included in Exhibit 5.1)				
23.2*	Consent of Independent Registered Public Accounting Firm				
24.1*	Power of Attorney (included on the signature page herein)				
107*	Filing Fee Table				

Portions of these exhibits have been omitted pursuant to Item 601(b)(10) of Regulation S-K because they are both (i) not material and (ii) contain the type of information that the Company customarily and actually treats as private or confidential.

† Certain of the exhibits and schedules to this Exhibit have been omitted in accordance with Regulation S-K Item 601(a)(5). The Company hereby undertakes to furnish supplementally a copy of any omitted exhibit or schedule upon request by the Securities and Exchange Commission.

* Filed herewith.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made of securities registered hereby, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; *provided, however*, that paragraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
- (2) That, for the purpose of determining any liability under the Securities Act of 1933, as amended, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) If the registrant is relying on Rule 430B (§ 230.430B of this chapter):
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrants pursuant to the foregoing provisions, or otherwise, the registrants have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrants will, unless in the opinion of their counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Edison, State of New Jersey, on this 7th day of May, 2025.

EOS ENERGY ENTERPRISES, INC.

By: /s/ Eric Javidi

Name: Eric Javidi

Title: Chief Financial Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Joseph Mastrangelo and Eric Javidi, his or her true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and any and all additional registration statements pursuant to Rule 462(b) of the Securities Act of 1933, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agents full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Position	Date
<u>/s/ Joseph Mastrangelo</u> Joseph Mastrangelo	Chief Executive Officer and Director (Principal Executive Officer)	May 7, 2025
<u>/s/ Eric Javidi</u> Eric Javidi	Chief Financial Officer (Principal Financial Officer)	May 7, 2025
<u>/s/ Sumeet Puri</u> Sumeet Puri	Chief Accounting Officer (Principal Accounting Officer)	May 7, 2025
<u>/s/ Alex Dimitrief</u> Alex Dimitrief	Director	May 7, 2025
<u>/s/ Jeffrey Bornstein</u> Jeffrey Bornstein	Director	May 7, 2025
<u>/s/ Claude Demby</u> Claude Demby	Director	May 7, 2025
<u>/s/ Jeffrey McNeil</u> Jeffrey McNeil	Director	May 7, 2025
<u>/s/ Joseph Nigro</u> Joseph Nigro	Director	May 7, 2025
<u>/s/ Gregory Nixon</u> Gregory Nixon	Director	May 7, 2025
<u>/s/ Nick Robinson</u> Nick Robinson	Director	May 7, 2025
<u>/s/ Russell Stidolph</u> Russell Stidolph	Director	May 7, 2025
<u>/s/ David Urban</u> David Urban	Director	May 7, 2025
<u>/s/ Marian "Mimi" Walters</u> Marian "Mimi" Walters	Director	May 7, 2025



May 7, 2025

Eos Energy Enterprises, Inc.
3920 Park Avenue
Edison, New York 08820

Ladies and Gentlemen:

We have acted as counsel for Eos Energy Enterprises, Inc., a Delaware corporation (the “*Company*”), in connection with the filing with the Securities and Exchange Commission (the “*Commission*”) on the date hereof, under the Securities Act of 1933, as amended (the “*Securities Act*”), of a registration statement on Form S-3 (the “*Registration Statement*”) by the Company which registers the resale by the holders thereof of an aggregate of 158,433,112 shares (the “*Shares*”) of common stock, par value \$0.0001 per share (the “*Common Stock*”), (a) underlying shares of Series A-1 Non-Voting Non-Convertible Preferred Stock, par value \$0.0001 per share (the “*Series A-1 Preferred Stock*”), that converted into 31.940063 shares of non-voting Series B-1 Convertible Preferred Stock, par value \$0.0001 per share (“*Series B-1 Preferred Stock*”), which shares of Series B-1 Preferred Stock are convertible into 31,940,063 shares of Common Stock, (ii) shares of Series A-2 Non-Voting Non-Convertible Preferred Stock, par value \$0.0001 per share (the “*Series A-2 Preferred Stock*” and together, with the Series A-1 Preferred Stock, the “*Series A Preferred Stock*”), that converted into 28.806463 shares of non-voting Series B-2 Convertible Preferred Stock, par value \$0.0001 per share (“*Series B-2 Preferred Stock*”), which shares of Series B-2 Preferred Stock are convertible into 28,806,463 shares of Common Stock, (iii) 38.259864 shares of non-voting Series B-3 Convertible Preferred Stock, par value \$0.0001 per share (“*Series B-3 Preferred Stock*”), which shares of Series B-3 Preferred Stock are convertible into 38,259,864 shares of Common Stock, and (iv) 16.150528 shares of non-voting Series B-4 Convertible Preferred Stock, par value \$0.0001 per share (the “*Series B-4 Preferred Stock*” and, together with the Series B-1 Preferred Stock, the Series B-2 Preferred Stock and the Series B-3 Preferred Stock, the “*Series B Preferred Stock*”), which are convertible into 16,150,528 shares of Common Stock and (b) issuable upon exercise of a warrant to purchase 43,276,194 shares of Common Stock at an exercise price of \$0.001 per share (the “*Warrant*”) issued in connection with that certain securities purchase agreement, by and between the Company and CCM Denali Equity Holdings, LP (as amended from time to time, the “*Securities Purchase Agreement*”) and that certain Credit and Guaranty Agreement dated as of June 21, 2024, by and among the Company, the subsidiary guarantors party thereto, various lenders and CCM Denali Debt Holdings, LP (the “*Credit Agreement*”).

In rendering the opinion expressed herein, we have examined and relied upon the originals, or copies certified to our satisfaction, of (i) the Certificate of Incorporation, as amended, and the Amended and Restated Bylaws of the Company, as amended, as of the date hereof (“*Company Organizational Documents*”); (ii) certain resolutions of the Board of Directors of the Company related to the filing of the Registration Statement, the authorization and issuance of the Shares and related matters, (iii) the Registration Statement and all exhibits thereto; (iv) the Securities Purchase Agreement, (v) the Credit Agreement, (vi) the certificates of designation of the Series A Preferred Stock and Series B Preferred Stock, (vii) a certificate executed by an officer of the Company, dated as of the date hereof; and (viii) such other corporate records of the Company as we have deemed necessary or appropriate for purposes of the opinions hereafter expressed.

We have relied upon such certificates of officers of the Company and of public officials and statements and information furnished by officers of the Company with respect to the accuracy of material factual matters contained therein which were not independently established by us. In such examination, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as photostatic or certified copies, and the authenticity of the originals of such copies.

As to all questions of fact material to this opinion, where such facts have not been independently established, we have relied, to the extent we have deemed reasonably appropriate, upon representations or certificates of officers of the Company or governmental officials.

Haynes and Boone, LLP

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We have also assumed that (i) the Company will continue to be incorporated and in existence and good standing in its jurisdiction of organization; (ii) the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective; (iii) no stop order of the Commission preventing or suspending the use of the prospectus contained in the Registration Statement or any prospectus supplement will have been issued; (iv) a prospectus properly describing the Shares offered thereby will have been delivered to the purchaser(s) of the Shares as required in accordance with applicable law; (v) the resolutions of the Board of Directors of the Company referred to above will not have been modified or rescinded, (vi) all Shares will be offered, issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement and the prospectus and any prospectus supplement; and (vii) there will not have occurred any change in law or in the Company Organizational Documents of the Company adversely affecting the Shares or the rights of the holders thereof.

We have not considered, and express no opinion herein as to, the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware, as currently in effect (the “*DGCL*”).

Based upon the foregoing and subject to the assumptions and qualifications stated herein, we are of the opinion that upon issuance of the Shares (i) upon conversion of the Series B Preferred Stock in accordance with the terms of the applicable certificates of designation and (ii) upon exercise of the Warrant in accordance with the terms of the Warrant against payment in full of the consideration payable therefor as contemplated by the Warrant, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion with the Commission as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the heading “Legal Matters” in the prospectus constituting part of such Registration Statement. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Haynes and Boone, LLP

Haynes and Boone, LLP

Haynes and Boone, LLP

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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 4, 2025 relating to the financial statements of Eos Energy Enterprises, Inc., appearing in the Annual Report on Form 10-K of Eos Energy Enterprises, Inc. for the year ended December 31, 2024. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ Deloitte & Touche LLP

New York, NY
May 7, 2025

Calculation of Filing Fee Table

Registration Statement on Form S-3
(Form Type)EOS ENERGY ENTERPRISES, INC.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit(2)	Maximum Aggregate Offering Price(2)	Fee Rate	Amount of Registration Fee
Fees to Be Paid	Equity Common Stock, par value \$0.0001 per share	457(c)	158,433,112 ⁽¹⁾	\$ 4.98	\$ 788,996,897.76	0.00015310	\$ 120,795.43
Total Offering Amounts					\$ 788,996,897.76		\$ 120,795.43
Total Fees Previously Paid							—
Total Fee Offsets							—
Net Fee Due							\$ 120,795.43

(1) Consists of 158,433,112 shares of common stock, par value \$0.0001 (the “Common Stock”) issuable to the Selling Securityholder upon (i) exercise of a warrant to purchase 43,276,194 shares of Common Stock, (ii) conversion of 31,940,063 shares of non-voting Series B-1 Convertible Preferred Stock, par value \$0.0001 per share into an aggregate of 31,940,063 shares of Common Stock, (iii) conversion of 28,806,463 shares of non-voting Series B-2 Convertible Preferred Stock, par value \$0.0001 per share into an aggregate of 28,806,463 shares of Common Stock, (iv) conversion of 38,259,864 shares of non-voting Series B-3 Convertible Preferred Stock, par value \$0.0001 per share into an aggregate of 38,259,864 shares of Common Stock and (v) 16,150,528 shares of non-voting Series B-4 Convertible Preferred Stock, par value \$0.0001 per share into an aggregate of 16,150,528 shares of Common Stock issued in connection with the Purchase Agreement. Pursuant to Rule 416 under the Securities Act of 1933, as amended, the shares of Common Stock being registered hereunder include such indeterminate number of shares of Common Stock as may be issuable with respect to the shares of Common Stock being registered hereunder as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) of the Securities Act, on the basis of the average of the high and low prices for a share of the registrant’s common stock as reported on The Nasdaq Stock Market LLC on May 6, 2025, which date is a date within five business days prior to the filing of this registration statement.