

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

FORM S-8

**REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933**

ORION ENERGY SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Wisconsin
(State or Other Jurisdiction of
Incorporation or Organization)

39-1847269
(I.R.S. Employer
Identification No.)

**2210 Woodland Drive
Manitowoc, Wisconsin 54220**
(Address, Including Zip Code, of Principal Executive Offices)

Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan
(Full Title of the Plan)

Neal R. Verfuert
Chief Executive Officer
Orion Energy Systems, Inc.
2210 Woodland Drive
Manitowoc, Wisconsin
(920) 892-9340
(Name, address and telephone number, including
area code, of agent for service)

Copy to:

Steven R. Barth, Esq.
Foley & Lardner LLP
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202

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

Large accelerated filer o Accelerated filer Non-accelerated filer o Smaller reporting company o
(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share(2)	Proposed Maximum Aggregate Offering Price(2)	Amount of Registration Fee
Common Stock, no par value	1,500,000 shares	\$3.67	\$5,497,500	\$639
Common Share Purchase Rights	1,500,000 rights	(3)	(3)	(3)

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, this Registration Statement covers, in addition to the number of shares stated above, an indeterminate number of shares of common stock, no par value ("Common Stock"), that may become issuable under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan by reason of stock splits, stock dividends or similar transactions.
- (2) Estimated pursuant to Rule 457(c) and (h) under the Securities Act of 1933, as amended, solely for the purpose of calculating the registration fee on the basis of the average of the high and low prices of the Common Stock as reported on the NYSE Amex LLC on August 2, 2011.
- (3) The value attributable to the Common Share Purchase Rights is reflected in the market price of the Common Stock to which the Rights are attached.

Pursuant to Rule 429 under the Securities Act, the Prospectus referred to herein also relates to the Registrant's Registration Statement on Form S-8 (Registration No. 333-148401).

STATEMENT PURSUANT TO GENERAL INSTRUCTION E TO FORM S-8

The purpose of this Registration Statement is to register 1,500,000 additional shares of Common Stock, no par value (the "Common Stock"), of Orion Energy Systems, Inc. (the "Company") in connection with the 2004 Stock and Incentive Awards Plan.

Pursuant to General Instruction E of Form S-8, the contents of the Company's Registration Statement on Form S-8 (Registration No. 333-148401), including the documents incorporated by reference therein, are incorporated by reference into this Registration Statement, except as set forth below.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 8. Exhibits.

The exhibits filed herewith or incorporated herein by reference are set forth in the attached Exhibit Index.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, 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;

(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 (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in 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 the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, in a primary offering of securities of the Registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the Registrant relating to the offering required to be filed pursuant to Rule 424 under the Securities Act of 1933;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the Registrant or used

or referred to by the Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the Registrant or its securities provided by or on behalf of the Registrant; and

(iv) Any other communication that is an offer in the offering made by the Registrant to the purchaser.

(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 that is incorporated by reference in this Registration Statement 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.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Act 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 Registrant will, unless in the opinion of its 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 Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Manitowoc, State of Wisconsin, on August 9, 2011.

ORION ENERGY SYSTEMS, INC.

By: /s/ Neal R. Verfuerrth
Neal R. Verfuerrth
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities indicated on August 9, 2011. Each person whose signature appears below constitutes and appoints Neal R. Verfuerrth and Scott R. Jensen, and each of them, his or her true and lawful attorney-in-fact and agent, 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 to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

<u>Signature</u>	<u>Title</u>
<u>/s/ Neal R. Verfuerrth</u> Neal R. Verfuerrth	Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Scott R. Jensen</u> Scott R. Jensen	Chief Financial Officer (Principal Financial Officer)
<u>/s/ Richard Gaumer</u> Richard Gaumer	Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ James R. Kackley</u> James R. Kackley	Chairman of the Board
<u>/s/ Michael W. Altschaeffl</u> Michael W. Altschaeffl	Director
<u>/s/ Michael J. Potts</u> Michael J. Potts	Director
<u>/s/ Thomas A. Quadracci</u> Thomas A. Quadracci	Director
<u>/s/ Elizabeth Gamsky Rich</u> Elizabeth Gamsky Rich	Director
<u>/s/ Thomas N. Schueller</u> Thomas N. Schueller	Director
<u>/s/ Mark C. Williamson</u> Mark C. Williamson	Director
<u>/s/ Tryg C. Jacobson</u> Tryg C. Jacobson	Director

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Exhibit</u>
(4.1)	Amended and Restated Articles of Incorporation of the Company (incorporated by reference to Exhibit 3.3 to the Company's Registration Statement on Form S-1 (Reg. No. 333-145569)).
(4.2)	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.5 to the Company's Registration Statement on Form S-1 (Reg. No. 333-145569)).
(4.3)	Rights Agreement, dated as of January 7, 2009, between Orion Energy Systems, Inc. and Wells Fargo Bank, N.A., which includes as Exhibit A thereto the Form of Right Certificate and as Exhibit B thereto the Summary of Common Share Purchase Rights (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form 8-A filed January 8, 2009 (File No. 001-33887)).
(4.4)	Form of Stock Option Agreement under the Orion Energy Systems, Inc. 2004 Equity Incentive Plan (incorporated by reference to Exhibit 10.10 to the Company's Registration Statement on Form S-1 (Reg. No. 333-145569)).
(4.5)	Form of Stock Option Agreement under the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan (incorporated by reference to Exhibit 10.11 to the Company's Registration Statement on Form S-1 (Reg. No. 333-145569)).
(5)	Opinion of Foley & Lardner LLP.
(23.1)	Consent of Grant Thornton LLP.
(23.2)	Consent of Foley & Lardner LLP (contained in Exhibit 5 hereto).
(24)	Powers of Attorney (included on the signature page to this Registration Statement).

ATTORNEYS AT LAW

777 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202-5306
414.271.2400 TEL
414.297.4900 FAX
www.foley.com

CLIENT/MATTER NUMBER
042365-0242

August 9, 2011

Orion Energy Systems, Inc.
2210 Woodland Drive
Manitowoc, Wisconsin 54220

Ladies and Gentlemen:

We have acted as counsel for Orion Energy Systems, Inc., a Wisconsin corporation (the "Company"), in conjunction with the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act"), relating to 1,500,000 shares of the Company's Common Stock, no par value (the "Common Stock"), and the related Common Share Purchase Rights (the "Rights") which may be issued pursuant to the Orion Energy Systems, Inc. 2004 Stock and Incentive Awards Plan (the "Plan"). The terms of the Rights are as set forth in that certain Rights Agreement, dated as of January 7, 2009, between the Company and Wells Fargo Bank, N.A. (the "Rights Agreement").

As such counsel, we have examined: (i) the Plan; (ii) the Registration Statement, including the exhibits (including those incorporated by reference) constituting a part of the Registration Statement; (iii) the Amended and Restated Articles of Incorporation of the Company, as amended to date; (iv) the Amended and Restated Bylaws of the Company, as amended to date; (v) resolutions of the Company's Board of Directors relating to the Plan and the issuance of securities thereunder; and (vi) such other documents and records and certificates of government officials as we have deemed necessary to enable us to render this opinion. In all such examinations, we have assumed the genuineness of all signatures, the legal capacity of all natural persons, the authenticity of all documents, certificates, and instruments submitted to us as originals and the conformity with the originals of all documents submitted to us as copies.

Based upon and subject to the foregoing, and assuming that (a) the Registration Statement and any amendments thereto (including post-effective amendments) will have become effective and comply with all applicable laws; (b) the Registration Statement will be effective and will comply with all applicable laws at the time the Common Stock is offered or issued as contemplated by the Registration Statement; and (c) all Common Stock will be issued and sold in compliance with applicable federal and state securities laws and in the manner stated in the Registration Statement, we are of the opinion that:

1. The shares of Common Stock, when issued by the Company pursuant to the terms and conditions of the Plan and as contemplated by the Registration Statement, will be validly issued, fully paid and nonassessable. With respect to the foregoing opinion, at one time Section 180.0622(2)(b) of the Wisconsin Business Corporation Law imposed personal liability upon shareholders for debts owing to employees of the Company for services performed, but not exceeding six months' service in any one case. This statutory provision was repealed by 2005 Wisconsin Act 474, which provided that the repeal applies to debts incurred on or after June 14, 2006.

2. The Rights, when issued pursuant to the terms of the Rights Agreement, will be validly issued.

We consent to the use of this opinion as an exhibit to the Registration Statement. In giving our consent, we do not admit that we are "experts" within the meaning of Section 11 of the Securities Act or within the category of persons whose consent is required by Section 7 of the Securities Act.

Very truly yours,

/s/ Foley & Lardner LLP

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ORLANDO

SACRAMENTO
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SAN DIEGO/DEL MAR
SAN FRANCISCO
SILICON VALLEY

TALLAHASSEE
TAMPA
TOKYO
WASHINGTON, D.C.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated July 22, 2011 with respect to the consolidated financial statements, schedule and internal control over financial reporting included in the Annual Report on Form 10-K for the year ended March 31, 2011 of Orion Energy Systems, Inc., which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference in the Registration Statement of the aforementioned reports.

/s/ GRANT THORNTON LLP

Milwaukee, Wisconsin

August 9, 2011