

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

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

IDEAL POWER INC.

(Exact name of registrant as specified in its charter)

Delaware

3620

14-1999058

(State or other jurisdiction of
incorporation or organization)

(Primary Standard Industrial
Classification Code Number)

(I.R.S. Employer
Identification Number)

5004 Bee Creek Road, Suite 600
Spicewood, Texas 78669
(512) 264-1542

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

Paul Bundschuh
Chief Executive Officer
Ideal Power Inc.

5004 Bee Creek Road, Suite 600
Spicewood, Texas 78669
(512) 264-1542

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

Copies to:

Kevin Friedmann, Esq.
Richardson & Patel LLP
The Chrysler Building
405 Lexington Avenue, 49th Floor
New York, New York 10174
Telephone: (212) 561-5559
Fax: (917) 591-6898

Scott Bartel, Esq.
Eric Stiff, Esq.
Locke Lord LLP
500 Capitol Mall, Suite 1800
Sacramento, California 95814
Telephone: (916) 930-2500
Fax: (916) 930-2501

Approximate date of commencement of proposed sale to the public: As soon as possible after the effective date hereof.

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 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. Registration No. 333-190414

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 post-effective amendment filed pursuant to Rule 462(d) 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.

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. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee (5)
Common Stock, \$0.001 par value per share (2)	575,000	\$ 5.00	\$ 2,875,000	\$ 370.30
Common Stock underlying Underwriter's Warrant	57,500	\$ 6.25	\$ 359,375	46.29
Total	632,500		\$ 3,234,375	\$ 416.59

(1) Calculated pursuant to Rule 457(a) under the Securities Act of 1933.

(2) Represents only the additional amount of securities being registered. The Registrant previously registered an aggregate of \$16,171,875 of its shares on the Registrant's Registration Statement on Form S-1 (File No. 333-190414) declared effective on November 21, 2013, for which a filing fee was previously paid.

The Registration Statement shall become effective upon filing with the Commission in accordance with Rule 462(b) under the Securities Act of 1933, as amended.

EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

This registration statement is being filed to increase the dollar amount and number of securities registered under the registration statement on Form S-1 (Registration No. 333-190414) declared effective on November 21, 2013 (the "Initial Registration Statement"), by \$3,234,375 and 632,500, respectively, pursuant to Rule 462(b) of the Securities Act of 1933, as amended. In accordance with Rule 462(b), this registration statement incorporates by reference the Initial Registration Statement, including all amendments, supplements and exhibits thereto and all information incorporated by reference therein, other than the exhibits included herein.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits

Exhibit Number	Description of Exhibit
5.1	Opinion of Richardson & Patel LLP (filed herewith)
23.1	Consent of Independent Registered Public Accounting Firm, Gumbiner Savett, Inc. (filed herewith)
23.2	Consent of Richardson & Patel LLP (including in Exhibit 5.1)
24.1	Power of Attorney (previously filed on the signature page to the Registration Statement on Form S-1 (File No. 333-190414) filed with the SEC on August 6, 2013)

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 Spicewood, State of Texas, on November 21, 2013.

IDEAL POWER INC.

By: /s/ Paul Bundschuh
Paul Bundschuh, Chief Executive Officer
(Principal Executive Officer)

Date: November 21, 2013

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

Dated: November 21, 2013

/s/ Paul A. Bundschuh
Paul A. Bundschuh
Chief Executive Officer and Director
(Principal Executive Officer)

Dated: November 21, 2013

/s/ Timothy W. Burns
Timothy W. Burns
Chief Financial Officer
(Principal Financial and Accounting Officer) and
Secretary

Dated: November 21, 2013

/s/ Charles De Tarr
Charles De Tarr
Vice President, Finance

Dated: November 21, 2013

/s/ Lon E. Bell*
Lon E. Bell, Ph.D., Director

Dated: November 21, 2013

/s/ Mark L. Baum*
Mark L. Baum, Director

Dated: November 21, 2013

/s/ David B. Eisenhaure
David B. Eisenhaure, Director

* /s/ Paul A. Bundschuh
Paul A. Bundschuh, Attorney-in-Fact

EXHIBIT INDEX

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RICHARDSON & PATEL LLP

November 21, 2013

Ideal Power Inc.
5004 Bee Creek Road, Suite 600
Spicewood, Texas

Re: Registration Statement on Form S-1
Filed pursuant to Rule 462(b) under the Securities Act of 1933

Gentlemen:

We have examined the Registration Statement on Form S-1 (the "Registration Statement") of Ideal Power Inc., a Delaware corporation (the "Company"), to be filed with the Securities and Exchange Commission on November 21, 2013 pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration under the Securities Act of an additional 632,500 shares (the "Additional Shares") of the Company's common stock, \$0.001 par value per share (which includes shares subject to the underwriters' over-allotment option). An aggregate of 3,162,500 shares of the Company's common stock was registered pursuant to the Company's Registration Statement on Form S-1 (No. 333-190414), which was declared effective by the Commission on November 21, 2013. The Additional Shares are to be sold to the underwriters named in the Registration Statement for resale to the public.

As counsel to the Company, we have examined the proceedings taken by the Company in connection with the issuance by the Company of the Additional Shares. We are of the opinion that the Additional Shares to be offered and sold by the Company have been duly authorized and, when issued and sold by the Company in the manner described in the Registration Statement and in accordance with the resolutions adopted by the Board of Directors of the Company, will be legally issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Registration Statement and the prospectus included or incorporated by reference therein.

Very truly yours,



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Ideal Power Inc.
Austin, Texas

We consent to the incorporation by reference in this Registration Statement on Form S-1 filed pursuant to Rule 462(b) of the Securities Act of 1933 of our report dated July 16, 2013, except for Notes 17 and 18 as to which the date is August 2, 2013, relating to the financial statements of Ideal Power Inc. as of December 31, 2012 and 2011, and the related statements of operations, stockholders' deficit, and cash flows for each of the years in the two-year period ended December 31, 2012, appearing in the registration statement on Form S-1 (No. 333-190414) and related prospectus of the Company filed on November 18, 2013, and to the reference to us under the heading "Experts" in the related Prospectus. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

/s/ Gumbiner Savett Inc.

November 21, 2013