

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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 6)\*

Ideal Power, Inc.  
(Name of Issuer)

Common Stock, Par Value \$.001  
(Title of Class of Securities)

451622104  
(CUSIP Number)

December 31, 2017  
(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this  
Schedule 13G is filed:

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

\*The remainder of this cover page shall be filled out for a reporting  
person's initial filing on this form with respect to the subject class  
of securities, and for any subsequent amendment containing information  
which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not  
be deemed to be "filed" for the purpose of Section 18 of the  
Securities Exchange Act of 1934 ("Act") or otherwise subject to the  
liabilities of that section of the Act but shall be subject to all  
other provisions of the Act (however, see the Notes).

CUSIP No. 451622104

(1) Names of Reporting Persons. I.R.S. Identification Nos. of  
Above Persons (entities only):

AWM Investment Company, Inc.

(2) Check the Appropriate Box if a Member of a Group (See  
Instructions) (a) \_\_\_ b) \_\_\_

(3) SEC Use Only

(4) Citizenship or Place of Organization: Delaware, United States

Number of Shares Beneficially

Owned by Each Reporting Person

With

(5) Sole Voting Power:

811,635\*\*

(6) Shared Voting Power: 0\*\*

(7) Sole Dispositive Power:

811,635\*\*

(8) Shared Dispositive Power: 0\*\*

(9) Aggregate Amount Beneficially Owned by Each Reporting  
Person: 811,635\*\*

(10) Check if the Aggregate Amount in Row (9) Excludes Certain Shares

(See Instructions):

(11) Percent of Class Represented by Amount in Row (9): 9.99%\*\*

(12) Type of Reporting Person (See Instructions): IA

\*\*AWM Investment Company, Inc., a Delaware corporation (?AWM?), is the investment adviser to Special Situations Cayman Fund, L.P. (?CAYMAN?), Special Situations Fund III QP, L.P. (?SSFQP?), Special Situations Technology Fund, L.P. (?TECH?) and Special Situations Technology Fund II, L.P. (?TECH II?). (CAYMAN, SSFQP, TECH and TECH II will hereafter be referred to as the ?Funds?). As the investment adviser to the Funds, AWM holds sole voting and investment power over 118,710 shares of Common Stock of the Issuer (the ?Shares?), 221,994 shares of Preferred Stock\*\*\* and 173,020 Warrants\*\*\*\* to purchase Shares held by CAYMAN, 408,329 Shares, 763,692 shares of Preferred Stock\*\*\* and 595,202 Warrants\*\*\*\* held by SSFQP, 42,405 Shares, 79,391 shares of Preferred Stock\*\*\* and 61,878 Warrants\*\*\*\* held by TECH and 242,191 Shares, 453,353 shares of Preferred Stock\*\*\* and 353,330 Warrants\*\*\*\* held by TECH II. Austin W. Marxe (?Marxe?), David M. Greenhouse (?Greenhouse?) and Adam C. Stettner (?Stettner?) previously reported the Shares held by the Funds on Schedule 13G. Accordingly, reference should be made to Marxe, Greenhouse and Stettner (CIK #0001044321) for filings prior to February 14, 2015 with the Securities and Exchange Commission relating to the Shares held by each of the Funds. See Items 2 and 4 of this Schedule for additional information.

\*\*\* The Preferred Shares described herein may only be converted to Common Shares to the extent that the total number of Common Shares then beneficially owned does not exceed 9.99% of the outstanding shares.

\*\*\*\* The Warrants described herein may only be exercised to the extent that the total number of Common Shares then beneficially owned does not exceed 9.99% of the outstanding shares.

Item 1(a). Name Of Issuer: Ideal Power, Inc.

Item 1(b). Address of Issuer?s Principal Executive Offices:

5004 Bee Creek Road ? Suite 600  
Spicewood, Texas 78669

Item 2(a). Name of Person Filing:

The person filing this report is AWM Investment Company, Inc., a Delaware corporation (?AWM?), which is the investment adviser to Special Situations Cayman Fund, L.P., a Cayman Islands Limited Partnership (?CAYMAN?), Special Situations Fund III QP, L.P., a Delaware limited partnership (?SSFQP?), Special Situations Technology Fund, L.P., a Delaware limited partnership (?TECH?) and Special Situations Technology Fund II, L.P., a Delaware limited partnership (?TECH II?), (CAYMAN, SSFQP, TECH and TECH II, will hereafter be referred to as the ?Funds?). The principal business of each Fund is to invest in equity and equity-related securities and other securities of any kind or nature.

Austin W. Marxe (?Marxe?), David M. Greenhouse (?Greenhouse?) and Adam C. Stettner (?Stettner?) are members of: SSCayman, L.L.C., a Delaware limited liability company (?SSCAY?), the general partner of CAYMAN; MGP Advisers Limited Partnership, a Delaware limited partnership (?MGP?), the general partner of SSFQP; and SST Advisers, L.L.C., a Delaware limited liability company (?SSTA?), the general partner of TECH and TECH II. Marxe, Greenhouse and Stettner are also controlling principals of AWM.

Item 2(b). Address of Principal Business Office or, if None, Residence:

The principal business address for AWM is c/o Special Situations Funds, 527 Madison Avenue, Suite 2600, New York, NY 10022.

Item 2(c). Citizenship: AWM is a Delaware Corporation.

Item 2(d). Title of Class of Securities: Common Stock, Par

Value \$.001

Item 2(e). CUSIP No.: 451622104

Item 3. If This Statement Is Filed Pursuant to 240.13d-1(b) or 240.13d-2(b) or (c), check whether the Person Filing is a:  
Not Applicable.

Item 4. Ownership

(a) Amount Beneficially Owned: 811,635\*\*

(b) Percent of Class: 9.99%\*\*

(c) Number of Shares as to which the person has:

(i) sole power to vote or to direct the vote: 811,635\*\*

(ii) shared power to vote or to direct the vote: 0\*\*

(iii) sole power to dispose or to direct the disposition of:  
811,635\*\*

(iv) shared power to dispose or to direct the disposition  
of: 0\*\*

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\*\* AWM is the investment adviser to each of the Funds. As the investment adviser to the Funds, AWM holds sole voting and investment power over 118,710 shares of Common Stock of the Issuer (the ?Shares?), 221,994 shares of Preferred Stock\*\*\* and 173,020 Warrants\*\*\*\* to purchase Shares held by CAYMAN, 408,329 Shares, 763,692 shares of Preferred Stock\*\*\* and 595,202 Warrants\*\*\*\* held by SSFQP, 42,405 Shares, 79,391 shares of Preferred Stock\*\*\* and 61,878 Warrants\*\*\*\* held by TECH and 242,191 Shares, 453,353 shares of Preferred Stock\*\*\* and 353,330 Warrants\*\*\*\* held by TECH II. Marxe, Greenhouse and Stettner are members of: SSCAY, the general partner of CAYMAN; MGP, the general partner of SSFQP; and SSTA, the general partner of TECH and TECH II. Marxe, Greenhouse and Stettner are also controlling principals of AWM. Marxe, Greenhouse and Stettner previously reported the Shares held by the Funds on Schedule 13G. Accordingly, reference should be made to Marxe, Greenhouse and Stettner (CIK #0001044321) for filings prior to February 14, 2015 with the Securities and Exchange Commission relating to the Shares held by each of the Funds.

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

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following. \_\_\_

Item 6. Ownership of More Than Five Percent on Behalf of Another Person

Not Applicable.

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

Not Applicable.

Item 8. Identification and Classification of Members of the Group

Not Applicable.

Item 9. Notice of Dissolution of Group

Not Applicable.

Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

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

Dated: February 9, 2018

AWM INVESTMENT COMPANY, INC.

By: /s/ David Greenhouse  
Name: David Greenhouse  
Title: Executive Vice President

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001)