

State of Delaware  
Secretary of State  
Division of Corporations  
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**SECOND AMENDED AND RESTATED  
CERTIFICATE OF INCORPORATION  
OF  
AFFINERGY, INC.**

SE-3

Peyton Anderson hereby certifies that:

**ONE:** The date of filing of the original Certificate of Incorporation of this company with the Secretary of State of the State of Delaware was March 4, 2003, and an Amended and Restated Certificate of Incorporation was filed on February 12, 2004. A Certificate of Designations was filed on February 18, 2004, and Certificates of Increase were filed on each of August 3, 2004 and October 25, 2004.

**TWO:** He is the duly elected and Acting President and Chief Executive Officer of Affinergy, Inc., a Delaware corporation.

**THREE:** The existing Amended and Restated Certificate of Incorporation, including the previously-filed Certificate of Designations and Certificates of Increase, is hereby amended and restated to read in its entirety as follows:

**I.**

The name of the Corporation is Affinergy, Inc. (the "Corporation").

**II.**

1. The Corporation is authorized to issue twenty-five million (25,000,000) shares of Class A Common Stock, \$0.0001 par value (the "Common Stock"), and fifteen million (15,000,000) shares of Preferred Stock, \$0.0001 par value (the "Preferred Stock").

2. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation is authorized from time to time to designate by resolution one or more series of Preferred Stock, and the powers, preferences and rights, and relative participation, optional or other special rights, and qualifications, limitations or restrictions thereof as shall be permitted by Delaware law and this Certificate and, subject to any requirements of this Certificate, to fix or alter the number of shares comprising any such series and the designation thereof. Except as otherwise required by Delaware law, the Common Stock shall have one vote per share, and the Preferred Stock shall have such voting rights as designated in the series resolution.

**III.**

All Section references in this Article III shall refer to other Sections in this Article III.

1. Designation of Series. There is hereby designated a class of Series A Convertible Preferred Stock (the "Series A Preferred Stock") consisting of three million nine hundred ninety thousand four hundred eleven (3,990,411) of the authorized shares of Preferred Stock, and a class of Series B Convertible Preferred Stock (the "Series B Preferred Stock") consisting of five million (5,000,000) of the authorized shares of Preferred Stock. The Series A Preferred Stock and the Series B Preferred Stock are sometimes referred to collectively as the "Series Preferred Stock."

2. Dividends. The holders of the Series Preferred Stock shall be entitled to receive in any fiscal year of the Corporation, when, as and if declared by the Board of Directors, out of any assets at the time legally available therefor, dividends payable in cash in an amount per share of Series Preferred Stock for such fiscal year at least equal to the product of (y) the per share amount, if any, of the cash dividend declared, paid or set aside for the Common Stock in such fiscal year, multiplied by (z) the number of shares of Common Stock into which each such share of Series Preferred Stock is convertible immediately after the close of business on the record date fixed for such dividend. The holders of the Series B Preferred Stock shall be entitled to receive in any fiscal year of the Corporation, when, as and if declared by the Board of Directors, out of any assets at the time legally available therefore, dividends payable in cash in an amount per share of Series B Preferred Stock for such fiscal year at least equal to the product of (y) the per share amount (determined on an as-converted to Common Stock basis), if any, of the cash dividend declared, paid or set aside for the Series A Preferred Stock in such fiscal year, multiplied by (z) the number of shares of Common Stock into which each such share of Series B Preferred Stock is convertible immediately after the close of business on the record date fixed for such dividend. The right to such dividends on shares of Series Preferred Stock shall not be cumulative, and no right shall accrue to holders of shares of Series Preferred Stock by reason of the fact that dividends on such shares were not declared in any prior year, nor shall any undeclared or unpaid dividends bear or accrue interest.

3. Liquidation Preference.

(a) Series B Preferred Stock Rights on Liquidation. Upon the happening of a Liquidation Event, before any payment shall be made or any assets distributed to the holders of Common Stock or any other class or series of stock which ranks, with respect to the right to receive payments upon liquidation, junior to the Series B Preferred Stock the holders of record of shares of Series B Preferred Stock shall be entitled to receive, out of the assets of the Corporation legally available therefor, an amount per share equal to the Series B Original Issue Price per share (as appropriately adjusted for stock dividends, combinations and splits with respect to such shares) plus all declared but unpaid dividends on such share. If upon the happening of a Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay to the holders of the Series B Preferred Stock their full liquidation preference, then the entire assets and funds of the Corporation legally available for distribution to its shareholders shall be distributed ratably among the holders of the Series B Preferred Stock in proportion to the number of shares held by each.

(b) Series A Preferred Stock Rights on Liquidation. Upon the happening of a Liquidation Event, after the satisfaction of the liquidation preference of the holders of the Series B Preferred Stock provided for above and before any payment shall be made or any assets distributed to the holders of Common Stock or any other class or series of stock which ranks, with respect to the right to receive payments upon liquidation, junior to the Series A Preferred Stock the holders of record of shares of Series A Preferred Stock shall be entitled to receive, out of the assets of the Corporation legally available therefor, an amount per share equal to the Series A Original Issue Price per share (as appropriately adjusted for stock dividends, combinations and splits with respect to such shares) plus all declared but unpaid dividends on such share. If upon the happening of a Liquidation Event, the assets of the Corporation available for distribution to its stockholders after satisfaction of the liquidation preference of the holders of the Series B Preferred Stock provided for above, shall be insufficient to pay to the holders of the Series A Preferred Stock their full liquidation preference, then the entire remaining assets and funds of the Corporation legally available for distribution to its shareholders shall be distributed ratably among the holders of the Series A Preferred Stock in proportion to the number of shares held by each.

(c) Distribution of Remaining Assets. Upon the happening of a Liquidation Event, immediately after the holders of the Series Preferred Stock shall have been paid in full their respective liquidation preferences, the entire remaining assets and funds of the Corporation legally available for distribution, if any, shall be distributed ratably among the holders of the Common Stock in proportion to the number of shares of Common Stock then held by each.

(d) Definitions.

(i) The "Series A Original Issue Price" shall mean fifty-five cents (\$0.55).

(ii) The "Series B Original Issue Price" shall mean one dollar (\$1.00).

(ii) A "Liquidation Event" shall include, in addition to the liquidation, dissolution, or winding up of the Corporation, (y) the sale of all or substantially all of the Corporation's assets, and (z) the merger or consolidation of the Corporation with or into another corporation or entity in which the outstanding shares of the Corporation are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring corporation or its subsidiary (other than a mere reincorporation transaction) unless, in either case, the Corporation's stockholders of record immediately prior to such sale or acquisition will, immediately after such sale or acquisition (by virtue of securities issued as consideration for the Corporation's acquisition or sale or otherwise) hold at least fifty percent (50%) of the voting power of the surviving or acquiring entity.

4. Voting Rights.

(a) Generally. Except as otherwise required by applicable law or as set forth herein, the shares of Series Preferred Stock shall be voted equally with the shares of Common Stock (voting together with the shares of Common Stock as a single class) at any annual or special meeting of stockholders of the Corporation, or may act by written consent in the same manner as the Common Stock, upon the following basis: each holder of one or more shares of Series Preferred Stock shall be entitled to notice of any stockholders' meeting in accordance with this Certificate and the bylaws of the Corporation and to such number of votes for the shares of Series Preferred Stock held by such holder on the record date fixed for such meeting, or on the effective date of such written consent, as shall be equal to the number of whole shares of Common Stock into which all of such holder's shares of Series Preferred Stock are convertible immediately after the close of business on the record date fixed for such meeting or the effective date of such written consent.

(b) Board of Directors. The Board of Directors shall consist of not less than five (5) and not more than seven (7) members; this range shall not be changed without the affirmative vote of the holders of two-thirds of the Series B Convertible Preferred Stock. The holders of Series B Preferred Stock, voting as a single class at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, shall be entitled to elect and maintain on the Board of Directors one (1) member, and the holders of the Series A Preferred Stock shall be entitled to elect and maintain on the Board of Directors one (1) member. The holders of Common Stock, voting as a separate class, shall be entitled to elect three (3) of the remaining members at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. In the event the Board elects to increase the size of the Board from five (5) members to six (6) or seven (7) members, such vacancies shall be filled by the holders of the Common Stock and the Series Preferred Stock voting together as a single class. Any director who shall have been elected by the holders of a class may be removed during such director's term of office, whether with or without cause, only by the affirmative vote of the holders of a majority of the shares of such class.

(c) Restrictions and Limitations.

(i) In addition to any other rights provided by law, the Corporation, without obtaining the affirmative vote or written consent of the holders of at least a majority of the outstanding shares of the Series A Preferred Stock and the holders of at least two-thirds of the outstanding shares of the Series B Preferred Stock, each class voting or consenting together as a separate class, shall not effect any voluntary liquidation, dissolution or winding up of the Corporation, effect any sale, lease, assignment, transfer, or other conveyance of all or substantially all of the assets of the Corporation, effect any consolidation, merger, share exchange or other combination involving the Corporation or any of its subsidiaries, or effect any reclassification or other change of any stock, or any recapitalization of the Corporation which would have the effect of any of the foregoing.

(ii) In addition to any other rights provided by law, the Corporation, without obtaining the affirmative vote or written consent of the holders of at least two-thirds of the outstanding shares of Series B Preferred Stock voting or consenting as a separate class, shall not (i) take any action, including any change to this Certificate or the Corporation's bylaws, that may adversely alter or change the designations, powers, rights, preferences or privileges, or the qualifications, limitations or restrictions of the Series B Preferred Stock or increase or decrease the authorized amount of any class or series of the Corporation's capital stock, or (ii) change the range of the Board of Directors from the range of five (5) to seven (7) members established in Section 4(b).

(iii) In addition to any other rights provided by law, the Corporation, without obtaining the affirmative vote or written consent of the holders of at least a majority of the outstanding shares of Series A Preferred Stock voting or consenting as a separate class, shall not take any action, including any change to this Certificate or the Corporation's bylaws, that may adversely alter or change the designations, powers, rights, preferences or privileges, or the qualifications, limitations or restrictions of the Series A Preferred Stock or increase or decrease the authorized amount of Series A Preferred Stock.

5. Termination of Rights. The powers, rights, preferences, privileges and restrictions granted to and imposed on the Series Preferred Stock as provided in this Certificate shall terminate on the earlier of (i) such time as the Corporation effects a "Qualified Public Offering" which shall mean the closing of the sale of the Corporation's Common Stock in a firm commitment, underwritten public offering registered on Form S-1 under the Securities Act of 1933, as amended, at a public offering price (prior to underwriters' discounts and expenses) equal to or exceeding five dollars (\$5.00) per share of Common Stock (as appropriately adjusted for any stock dividends, combinations or splits with respect to such shares) in which the aggregate gross proceeds to the Corporation equal or exceed twenty million dollars (\$20,000,000). In addition, the powers, rights, preferences, privileges and restrictions imposed on the Series A Preferred Stock shall terminate at such time as no more than nine hundred ninety-seven thousand six hundred three (997,703) shares of the Series A Preferred Stock remain outstanding, and the powers, rights, preferences, privileges and restrictions imposed on the Series B Preferred Stock shall terminate at such time as no more than twenty-five percent (25%) of the shares of Series A Preferred Stock issued on or before January 31, 2006 remain outstanding, in each case subject to appropriate adjustments for any stock dividends, combinations or splits with respect to such shares.

5A. Pre-emptive Rights. The holders of the Series Preferred Stock shall have such pre-emptive rights as are set forth in Section 10 of that certain Amended and Restated Investors' Rights Agreement entered into by and among the Corporation and the holders of the Series Preferred Stock and dated as of the Original Issue Date (as defined below), as such agreement may be amended from time to time in accordance with its terms.

6. Conversion. The holders of the Series Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Optional Conversion. Each share of Series Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such stock, as follows:

(i) Each share of Series B Preferred Stock shall be converted into the number of fully-paid and non-assessable shares of Common Stock as is determined by dividing the Series B Conversion Price per share in effect for the Series B Preferred Stock at the time of conversion into the Series B Conversion Value per share for the Series B Preferred Stock. The number of shares of Common Stock into which each share of the Series B Preferred Stock is convertible is hereinafter collectively referred to as the "Series B Conversion Rate." The initial "Series B Conversion Price" per each share of Series B Preferred Stock shall be such share's Series B Original Issue Price, subject to adjustment as set forth in Section 6(d), below. The "Series B Conversion Value" per share of Series B Preferred Stock shall be the Series B Original Issue Price. Any declared but unpaid dividends on the shares of Series B Preferred Stock may be converted into the number of shares of Common Stock equal to the amount of the declared but unpaid dividends divided by the Series B Conversion Price per share of the Series B Preferred Stock.

(ii) Each share of Series A Preferred Stock shall be converted into the number of fully-paid and non-assessable shares of Common Stock as is determined by dividing the Series A Conversion Price per share in effect for the Series A Preferred Stock at the time of conversion into the Series A Conversion Value per share for the Series A Preferred Stock. The number of shares of Common Stock into which each share of the Series A Preferred Stock is convertible is hereinafter collectively referred to as the "Series A Conversion Rate." The initial "Series A Conversion Price" per each share of Series A Preferred Stock shall be such share's Series A Original Issue Price, subject to adjustment as set forth in Section 6(d), below; the term "Conversion Price" shall refer to both the Series B Conversion Price and the Series A Conversion Price, as applicable. The "Series A Conversion Value" per share of Series A Preferred Stock shall be the Series A Original Issue Price. Any declared but unpaid dividends on the shares of Series A Preferred Stock may be converted into the number of shares of Common Stock equal to the amount of the declared but unpaid dividends divided by the Series A Conversion Price per share of the Series A Preferred Stock.

(b) Automatic Conversion. Each share of Series B Preferred Stock shall automatically be converted into shares of Common Stock at its then-effective Series B Conversion Rate, immediately upon the closing of a Qualified Public Offering, or upon the affirmative vote or consent of the holders of a majority of the shares of Series B Preferred Stock then outstanding. Each share of Series A Preferred Stock shall automatically be converted into shares of Common Stock at its then-effective Series A Conversion Rate, immediately upon the closing of a Qualified Public Offering, or upon the affirmative vote or consent of the holders of a majority of the shares of Series A Preferred Stock then outstanding.

(c) Mechanics of Conversion. Before any holder of Series Preferred Stock shall be entitled to convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any

transfer agent for such stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same and (subject to compliance with applicable federal and state securities laws) shall state therein the name or names in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of surrender of the certificate representing the shares of Series Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date. If the conversion is in connection with an underwritten offering of securities pursuant to the Securities Act of 1933, as amended, the conversion may, at the option of any holder tendering shares of Series Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock upon conversion of the Series Preferred Stock shall not be deemed to have converted such Series Preferred Stock until immediately prior to the closing of such sale of securities. Notwithstanding that any certificate for Series Preferred Stock to be converted in a mandatory conversion shall not have been surrendered as of the date fixed for conversion, each holder of Series Preferred Stock shall thereafter be treated for all purposes as the record holder of the number of shares of Common Stock issuable to such holder upon conversion.

(d) Conversion Price Adjustments of Series Preferred Stock. The Conversion Price of each series of the Series Preferred Stock shall be subject to adjustment from time to time as set forth below.

(i) Special Definitions. For purposes of this Section 6(d), the following definitions apply:

(1) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to subsection (iv), below, deemed to be issued) by the Corporation after the Original Issue Date, other than shares of Common Stock issued or issuable:

(A) upon conversion of shares of Series Preferred Stock;

(B) to officers, directors or employees of, or consultants or advisers to, the Corporation pursuant to stock option or stock purchase plans or agreements or other stock incentive plans or arrangements on terms approved by the Board of Directors;

(C) as a dividend or distribution to all holders of Series Preferred Stock or as a dividend or distribution to all holders of Common Stock and Series Preferred Stock authorized herein;

(D) for which adjustment of the applicable Conversion Price is made pursuant to Section 6(c), below;

(E) pursuant to the exercise of Options (as defined below) granted on or prior to the Original Issue Date;

(F) pursuant to the acquisition of another business entity or business segment of any such entity by the Company by merger, purchase of substantially all of the units or other reorganization whereby the Company or its stockholders will own fifty percent (50%) of the voting power of such business entity; or business segment of such entity; or

(G) in connection with commercial lending or equipment leasing arrangements in the ordinary course of business.

(2) "Convertible Securities" shall mean any evidences of indebtedness, shares (other than Common Stock and Series Preferred Stock) or other securities convertible into or exchangeable for Common Stock.

(3) "Original Issue Date" shall mean the date on which the first share of Series B Preferred Stock is issued.

(4) "Options" shall mean rights, options, or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities.

(ii) No Adjustment of Conversion Price. Any provision herein to the contrary notwithstanding, no adjustment in the applicable Conversion Price for any share of Series Preferred Stock shall be made in respect of the issuance of Additional Shares of Common Stock unless the consideration per share (determined pursuant to Section 6(d)(v) hereof) for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the applicable Conversion Price for such series of Series Preferred Stock in effect on the date of, and immediately prior to, such issue.

(iii) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall issue Additional Shares of Common Stock without consideration or for a consideration per share less than the applicable Conversion Price in effect on the date of, and immediately prior to such issue, then and in such event, such Conversion Price shall be reduced concurrently with such issue to a price (calculated to the nearest tenth of one cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such Conversion Price; and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common Stock so issued. For the purpose of the above



calculation, the number of shares of Common Stock outstanding immediately prior to such issue shall be calculated on a fully diluted basis, as if all then outstanding shares of Series Preferred Stock and all Convertible Securities had been fully converted into shares of Common Stock immediately prior to such issuance and any outstanding warrants, options or other rights for the purchase of shares of stock or convertible securities had been fully exercised immediately prior to such issuance (and the resulting securities fully converted into shares of Common Stock, if so convertible) as of such date, but not including in such calculation any additional shares of Common Stock issuable with respect to shares of Series Preferred Stock, Convertible Securities, Options, or other outstanding options, warrants or other rights for the purchase of shares of stock or convertible securities, solely as a result of the adjustment of the respective conversion prices (or other conversion ratios) resulting from the issuance of Additional Shares of Common Stock causing such adjustment.

(iv) Deemed Issue of Additional Shares of Common Stock. In the event the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities then entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein designed to protect against dilution) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefore, the conversion or exchange of such Convertible Securities and Options therefore, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock (unless specifically excluded pursuant to the terms of Sections 6(d)(1)(A)-(G), inclusive) issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(1) no further adjustments in the applicable Conversion Price of the Series Preferred Stock shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;

(2) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or increase or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the applicable Conversion Price of the Series Preferred Stock computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities (provided, however, that no such adjustment of the applicable Conversion Price shall affect Common Stock previously issued upon conversion of the Series Preferred Stock);

(3) upon the expiration or termination of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been

exercised, the applicable Conversion Price of the Series Preferred Stock computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon such expiration, be recomputed as if:

(A) in the case of Convertible Securities or Options for Common Stock the only Additional Shares of Common Stock issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefore was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration actually received by the Corporation upon such exercise, or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange; and

(B) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common Stock deemed to have been then issued was the consideration actually received by the Corporation for the issue of all such Options, whether or not exercised, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 6(d)(v)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised;

(4) no readjustment pursuant to clause (2) or (3) above shall have the effect of increasing the applicable Conversion Price of the Series Preferred Stock to an amount which exceeds the lower of (a) the applicable Conversion Price on the original adjustment date, or (b) the applicable Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock which take place between the original adjustment date and such readjustment date;

(5) in the case of any Options which expire by their terms not more than thirty (30) days after the date of issue thereof, no adjustment of the applicable Conversion Price of a series of Series Preferred Stock shall be made until the expiration or exercise of all such Options, whereupon such adjustment shall be made in the same manner provided in clause (3) above; and

(6) if any such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the applicable Conversion Price of a series of the Series Preferred Stock which became effective on such record date shall be canceled as of the close of business on such record date and shall instead be made on the actual date of issuance, if any.

(v) Determination of Consideration. For purposes of this Section 6(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(1) Cash and property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(B) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Corporation's Board of Directors; and

(C) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as determined in good faith by the Board of Directors.

(2) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Section 6(d)(iv), relating to Options and Convertible Securities shall be determined by dividing:

(A) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against dilution) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(B) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against dilution) issuable upon the exercise of such Options or conversion or exchange of such Convertible Securities.

(e) Adjustments to Conversion Price for Stock Dividends and for Combinations or Subdivisions of Common Stock. In the event that the Corporation at any time or from time to time after the Original Issue Date shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or in any right to acquire Common Stock for no consideration, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or in the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the applicable Conversion Price for a series of Series Preferred Stock in effect immediately

prior to such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate. In the event that this Corporation shall declare or pay, without consideration, any dividend on the Common Stock payable in any right to acquire Common Stock for no consideration, then the Corporation shall be deemed to have made a dividend payable in Common Stock in an amount of shares equal to the maximum number of shares issuable upon exercise of such rights to acquire Common Stock.

(f) Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section 6(d) above or a merger or other reorganization treated as a Liquidation Event under Section 3 above), the applicable Conversion Price of a series of the Series Preferred Stock then in effect shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that each share of Series Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock, or other securities or property, which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of such share of Series Preferred Stock immediately before that change.

(g) No Impairment. The Corporation will not, by amendment of this Certificate or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 6 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of the Series Preferred Stock against impairment.

(h) Certificates as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price of any series of the Series Preferred Stock pursuant to this Section 6, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of the Series Preferred Stock to which such adjustment relates a certificate executed by the Corporation's President or Chief Executive Officer or Chief Financial Officer setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based.

(i) Issue Taxes. The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issue or delivery of shares of Common Stock on conversion of Series Preferred Stock pursuant hereto; provided, however, that the Corporation shall not be obligated to pay (1) any transfer taxes resulting from any transfer requested by any holder in connection with any such conversion or (2) any taxes upon the gross receipts or income of the holder thereof.

(j) Reservation of Common Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Certificate.

(k) Fractional Shares. No fractional shares of Common Stock shall be issued upon the conversion of any share or shares of Series Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fraction of a share of Common Stock, the Corporation shall, in lieu of issuing any fractional share, pay the holder otherwise entitled to such fraction a sum in cash equal to the fair market value of such fraction on the date of conversion (as determined in good faith by the Board of Directors).

(l) Notices. Any notice required by the provisions of this Section 6 to be given to the holders of shares of Series Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, or if sent by facsimile or delivered personally by hand or nationally recognized courier and addressed to each holder of record at such holder's address or facsimile number appearing in the records of the Corporation.

7. No Reissuance of Series Preferred Stock. No share or shares of Series Preferred Stock acquired by the Corporation by reason of redemption, purchase, conversion or otherwise shall be reissued as Series Preferred Stock, and all such shares of such series shall be canceled and retired and returned to shares of undesignated Preferred Stock which the Corporation shall be authorized to issue subject to the terms herein.

#### IV.

The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle. The name of the initial registered agent is The Corporation Trust Company.

#### V.

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

## VI.

The business of the Corporation shall be managed by its Board of Directors; the election of the members of the Board need not be by written ballot.

## VII.

The Board of Directors is authorized to adopt, amend or repeal Bylaws of the Corporation except as and to the extent provided in such Bylaws.

## VIII.

To the fullest extent permitted under current law or future amendments to the law, no director of the Corporation shall be liable to the Corporation or any of 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) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. As used herein, the term "improper personal benefit" does not include a director's reasonable compensation or other reasonable incidental benefit for or on account of his or her service as director, officer, employee, independent contractor, attorney, or consultant of the Corporation. Any repeal or modification of this section shall be prospective and shall not affect the rights under this section in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

## IX.

Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under Section 291 of the Delaware General Corporation Law or on the application of trustees in dissolution or of any receiver or receivers appointed for this Corporation under Section 279 of the Delaware General Corporation Law order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders holding three-fourths of the applicable shares, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all the stockholders or class of stockholders, of this Corporation, as the case may be, and also on this Corporation.

**FOUR:** This Second Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Corporation.

**FIVE:** This Second Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of the Corporation in accordance with Section 228 of the Delaware General Corporate Law. This Second Amended and Restated Certificate of Incorporation has been duly adopted by the stockholders of the Corporation in accordance with the provisions of Sections 242 and 245 of the Delaware General Corporate Law.

[Signature on next page.]

IN WITNESS WHEREOF, AFFINERGY, INC. has caused this Second Amended and Restated Certificate of Incorporation to be signed by its President and Chief Executive Officer this 27th day of December, 2005.

AFFINERGY, INC.

By: Peyton Anderson  
Peyton Anderson, President and CEO

0778-004 amended and restated cert of incorporation-Series Li-ddv-ds marked