

OGE ENERGY CORP.
Form 424B5
November 20, 2008

[QuickLinks](#) -- Click here to rapidly navigate through this document

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-151780

PROSPECTUS SUPPLEMENT

(To prospectus dated June 19, 2008)

OGE ENERGY CORP.

321 N. Harvey, P.O. Box 321

Oklahoma City, Oklahoma 73101-0321

(405) 553-3000

COMMON STOCK, \$0.01 PAR VALUE PER SHARE

We have entered into an equity distribution agreement with J.P. Morgan Securities Inc. ("JPMS") relating to shares of our common stock offered hereby. In accordance with the terms of the equity distribution agreement, we may offer and sell up to 2,500,000 shares of our common stock from time to time through JPMS as our sales agent or to JPMS as principal. Sales of the shares of common stock, if any, may be made by means of ordinary brokers' transactions on the New York Stock Exchange at market prices and in such other manner as agreed upon by us and JPMS. JPMS will receive from us a commission of 1.5% based on the gross sales price per share for any shares sold to or through it as principal or agent under the equity distribution agreement.

Our common stock trades on the New York Stock Exchange under the symbol "OGE." On November 19, 2008, the closing price of our common stock on the New York Stock Exchange was \$25.56 per share.

Prior to making a decision about investing in our shares of common stock, you should consider carefully the risk factors set forth herein and in our most recently filed Annual Report on Form 10-K and other filings we may make from time to time with the SEC. See "Risk Factors" on page S-4.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is November 20, 2008.

Edgar Filing: OGE ENERGY CORP. - Form 424B5

You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus or in any free writing prospectus that we may provide to you. We have not authorized any person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these shares of common stock in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus or in any free writing prospectus that we may provide to you is accurate only as of the date on the front cover of those documents.

TABLE OF CONTENTS

PROSPECTUS SUPPLEMENT

| | |
|----------------------------------|-----|
| ABOUT THIS PROSPECTUS SUPPLEMENT | S-1 |
| FORWARD-LOOKING STATEMENTS | S-2 |
| OGE ENERGY CORP. | S-3 |
| RISK FACTORS | S-4 |
| USE OF PROCEEDS | S-4 |
| PLAN OF DISTRIBUTION | S-4 |
| LEGAL OPINIONS | S-5 |

PROSPECTUS

| | |
|-------------------------------------|----|
| ABOUT THIS PROSPECTUS | i |
| FORWARD-LOOKING STATEMENTS | 1 |
| OGE ENERGY CORP. | 2 |
| RISK FACTORS | 2 |
| USE OF PROCEEDS | 3 |
| DESCRIPTION OF CAPITAL STOCK | 3 |
| PLAN OF DISTRIBUTION | 9 |
| LEGAL OPINIONS | 10 |
| EXPERTS | 10 |
| WHERE YOU CAN FIND MORE INFORMATION | 11 |

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is a supplement to the accompanying prospectus that also is a part of this document. This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC") using a "shelf" registration process. Under this process, we may, from time to time over the next several years, sell in one or more offerings up to 6,000,000 shares of our common stock. In this prospectus supplement, we provide you with more specific information about the terms of this offering. Both this prospectus supplement and the accompanying prospectus include important information about us, our common stock and other information you should know before investing in our common stock. This prospectus supplement also adds, updates and changes information contained in the accompanying prospectus. To the extent that any statement that we make in this prospectus supplement is inconsistent with the statements made in the accompanying prospectus, the statements made in the accompanying prospectus are deemed modified or superseded by the statements made in this prospectus supplement. You should read both this prospectus supplement and the accompanying prospectus as well as the additional information described under the caption "Where You Can Find More Information" in the accompanying prospectus before investing in our common stock. We believe we have included all information material to investors but some details that may be important for specific investment purposes have not been included. For more details, you should read the exhibits filed with the registration statement of which this prospectus supplement and the accompanying prospectus are a part.

In this prospectus supplement, "we," "us," "our" and "our company" refer to OGE Energy Corp.

S-1

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference contain statements that are not historical fact and constitute "forward-looking statements." Such forward-looking statements are intended to be identified by the words "anticipate", "believe", "estimate", "expect", "intend", "objective", "plan", "possible", "potential", "project" and similar expressions. Forward-looking statements are not guarantees of performance. They involve risks, uncertainties and assumptions. Our future results may differ materially from those expressed in these forward-looking statements. These statements are necessarily based upon various assumptions involving judgments with respect to the future and other risks, including, among others:

general economic conditions, including the availability of credit, access to existing lines of credit, actions of rating agencies and their impact on capital expenditures;

our ability and the ability of our subsidiaries to access the capital markets and obtain financing on favorable terms;

prices and availability of electricity, coal, natural gas and natural gas liquids, each on a stand-alone basis and in relation to each other;

business conditions in the energy and natural gas midstream industries;

competitive factors, including the extent and timing of the entry of additional competition in the markets we serve;

unusual weather;

availability and prices of raw materials for current and future construction projects;

federal or state legislation and regulatory decisions and initiatives that affect cost and investment recovery, have an impact on rate structures or affect the speed and degree to which competition enters our markets;

environmental laws and regulations that may impact our operations;

changes in accounting standards, rules or guidelines;

the discontinuance of regulated accounting principles under Financial Accounting Standards Board Statement of Financial Accounting Standard No. 71, "Accounting for the Effects of Certain Types of Regulation";

creditworthiness of suppliers, customers and other contractual parties;

the higher degree of risk associated with our nonregulated businesses compared with our regulated utility business;

the risk that the proposed joint venture with Energy Transfer Partners, L.P. will not be completed, or will not be completed on the terms currently contemplated; and

other risk factors listed from time to time in the reports we file with the SEC.

Edgar Filing: OGE ENERGY CORP. - Form 424B5

In light of these risks and uncertainties, there can be no assurance that the results and events contemplated by the forward-looking statements contained or incorporated by reference in this prospectus supplement and the accompanying prospectus will in fact transpire. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. These risks and uncertainties are discussed in more detail under "Business," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Notes to Consolidated Financial Statements" in our Annual Report on Form 10-K for the year ended December 31, 2007, and "Notes to Condensed

S-2

Consolidated Financial Statements" in our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2008, June 30, 2008 and September 30, 2008 and other documents on file with the SEC. You may obtain copies of these documents as described under "Where You Can Find More Information" in the accompanying prospectus.

OGE ENERGY CORP.

We are an energy and energy services provider offering physical delivery and related services for both electricity and natural gas primarily in the south central United States. We conduct these activities through four business segments: (i) electric utility, (ii) natural gas transportation and storage, (iii) natural gas gathering and processing and (iv) natural gas marketing.

Our electric utility segment generates, transmits, distributes and sells electric energy in Oklahoma and western Arkansas. These operations are conducted through our subsidiary, Oklahoma Gas and Electric Company ("OG&E") and are subject to regulation by the Oklahoma Corporation Commission, the Arkansas Public Service Commission and the Federal Energy Regulatory Commission.

Our natural gas transportation and storage and natural gas gathering and processing segment operations are conducted through our subsidiary, Enogex LLC and its subsidiaries ("Enogex") which is a provider of integrated natural gas midstream services. The vast majority of Enogex's natural gas gathering, processing, transportation and storage assets are strategically located primarily in the Arkoma and Anadarko basins of Oklahoma and the Texas Panhandle.

Our natural gas marketing segment operations are conducted through our subsidiary, OGE Energy Resources, Inc. ("OERI"). Enogex has historically utilized, and is expected to continue to utilize, OERI for natural gas marketing, hedging, risk management and other related activities.

In September 2008, we announced an agreement to form a joint venture with Energy Transfer Partners, L.P. ("ETP") pursuant to which we will contribute to the new joint venture 100% of our ownership interest in Enogex and ETP will contribute to the new joint venture 100% of its ownership interest in Transwestern Pipeline Company, LLC and 100% of its ownership interest in ETC Canyon Pipeline, LLC and its 50% interest in Midcontinent Express Pipeline, LLC. Completion of the formation of the joint venture is subject to obtaining satisfactory financing, customary regulatory approvals and various third party consents. Under the terms of the agreement, if we and ETP do not complete the financing pursuant to the specified financing plan and close the joint venture no later than March 31, 2009, either party can cancel the agreement. In today's market, it would be difficult for the joint venture to complete the financing plan under the agreed to terms, but we and ETP are working with our banking teams to monitor the market and evaluate the funding options. We cannot assure you that the joint venture will be successfully completed.

We were incorporated in Oklahoma on August 4, 1995 and became the holding company parent of OG&E and Enogex on December 31, 1996.

Our principal executive offices are located at 321 North Harvey, Post Office Box 321, Oklahoma City, Oklahoma 73101-0321. Our telephone number is (405) 553-3000.

RISK FACTORS

An investment in our shares of common stock involves risk. Prior to making a decision about investing in our shares of common stock, you should carefully consider the risk factors and cautionary statements in our most recently filed Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q filed subsequently thereto under the heading "Risk Factors" and other filings we may make from time to time with the SEC. Such factors could affect actual results and cause results to differ materially from those expressed or implied in any forward-looking statements made by us or on our behalf. Additional risks and uncertainties not currently known to us or that we currently view as immaterial may also affect our business operations.

USE OF PROCEEDS

We intend to add the net proceeds from the sale of the shares of common stock to our general funds and to use those proceeds for general corporate purposes, including the repayment of outstanding commercial paper borrowings or other short-term debt.

PLAN OF DISTRIBUTION

We have engaged JPMS to act as agent or principal for the offer of up to 2,500,000 shares of our common stock in one or more placements or sales pursuant to the equity distribution agreement. As we and JPMS agree from time to time, JPMS will seek to solicit offers to purchase on an agency basis and/or will purchase on a principal basis, our common stock. JPMS will receive from us a commission of 1.5% based on the gross sales price per share for any shares sold to or through it as principal or agent under the equity distribution agreement. The number and purchase price (less the commission) of the shares we sell to JPMS will be mutually agreed on the relevant trading day. The common stock sold under the equity distribution agreement will be sold at prices related to the prevailing market price for such securities, and therefore exact figures regarding the share price, proceeds that will be raised or commissions to be paid will be described in our SEC filings. JPMS may also make sales of our common stock pursuant to the equity distribution agreement in privately negotiated transactions and/or any other method permitted by law deemed to be an "at-the-market" offering as defined in Rule 415 promulgated under the Securities Act of 1933 including sales made on the New York Stock Exchange, the current trading market for our common stock.

Settlement for sales of common stock will occur on the third business day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

This offering of common stock will terminate upon the earlier of: (i) the sale of all shares offered pursuant to this prospectus supplement and the accompanying prospectus or (ii) written notice of termination of the equity distribution agreement from either us or JPMS to the other party. The equity distribution agreement may be terminated at the sole discretion of either party at any time.

Copies of this prospectus supplement will be delivered in satisfaction of the prospectus delivery requirements of the Securities Act of 1933, including pursuant to Rule 172 under the Securities Act. We will report at least quarterly the number of shares of common stock sold to or through JPMS in at-the-market offerings, the net proceeds to us and the compensation paid by us to JPMS in connection with such sales of common stock.

In connection with the sale of common stock on our behalf, JPMS may be deemed to be an "underwriter" within the meaning of the Securities Act of 1933, and the compensation paid to JPMS may be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to JPMS against certain civil liabilities, including liabilities under the Securities Act of 1933.

JPMS and its affiliates have, and in the future may, engage in transactions with, or perform other services for, us or our affiliates in the ordinary course of business. We expect to pay a customary fee to JPMS or its affiliates in connection with such services.

LEGAL OPINIONS

Legal opinions relating to the validity of the shares of common stock and certain other matters will be rendered by our counsel, Rainey, Ross, Rice & Binns, P.L.L.C., Oklahoma City, Oklahoma, and Jones Day, Chicago, Illinois. Rainey, Ross, Rice & Binns, P.L.L.C. will pass on matters pertaining to local laws and as to these matters other counsel will rely on their opinions.

As of November 1, 2008, Mr. Hugh D. Rice, of counsel to Rainey, Ross, Rice & Binns, P.L.L.C., owned a beneficial interest of approximately 3,000 shares of common stock of our company.

Certain legal matters will be passed upon for JPMS by Chapman and Cutler LLP, Chicago, Illinois.

S-5

PROSPECTUS

OGE ENERGY CORP.

321 N. Harvey, P.O. Box 321
Oklahoma City, Oklahoma 73101-0321
(405) 553-3000

COMMON STOCK, \$0.01 PAR VALUE PER SHARE

We may offer for sale from time to time in one or more issuances up to 6,000,000 shares of our common stock. Each share of our common stock automatically includes one-half of a right to purchase one one-hundredth of a share of Series A Preferred Stock, par value \$0.01 per share, pursuant to the Amended and Restated Rights Agreement dated October 10, 2000. We will offer the shares of common stock in an amount and at prices to be determined by market conditions at the time of the offering. We will provide the specific offering terms in supplements to this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest. This prospectus may not be used to sell shares of common stock unless accompanied by a prospectus supplement.

Our common stock trades on the New York Stock Exchange under the symbol "OGE." On June 18, 2008, the closing price of our common stock on the New York Stock Exchange was \$33.13 per share.

Prior to making a decision about investing in our shares of common stock, you should consider carefully any risk factors contained in a prospectus supplement, as well as the risk sectors set forth in our most recently filed Annual Report on Form 10-K and other filings we may make from time to time with the SEC. See "Risk Factors" on page 2.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is June 19, 2008.

Edgar Filing: OGE ENERGY CORP. - Form 424B5

You should rely only on the information contained in or incorporated by reference into this prospectus and in any prospectus supplement or in any free writing prospectus that we may provide to you. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these shares of common stock in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in or incorporated by reference into this prospectus and in any prospectus supplement or in any free writing prospectus that we may provide to you is accurate only as of the date on the front cover of those documents.

TABLE OF CONTENTS

| | |
|-------------------------------------|----|
| ABOUT THIS PROSPECTUS | i |
| FORWARD-LOOKING STATEMENTS | 1 |
| OGE ENERGY CORP. | 2 |
| RISK FACTORS | 2 |
| USE OF PROCEEDS | 3 |
| DESCRIPTION OF CAPITAL STOCK | 3 |
| PLAN OF DISTRIBUTION | 9 |
| LEGAL OPINIONS | 10 |
| EXPERTS | 10 |
| WHERE YOU CAN FIND MORE INFORMATION | 11 |

Prior to making a decision about investing in our shares of common stock, you should consider carefully any risk factors contained in a prospectus supplement, as well as the risk factors set forth in our most recently filed Annual Report on Form 10-K and other filings we may make from time to time with the SEC. See "Risk Factors" on page 2.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the "SEC") utilizing a "shelf" registration process. Under this process, we may, from time to time over the next several years, sell in one or more offerings up to 6,000,000 shares of our common stock. This prospectus provides you with a general description of the shares of common stock we may offer. Each time we sell shares, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the applicable prospectus supplement together with the additional information described under the heading "Where You Can Find More Information." For more details, you should read the exhibits filed with the registration statement of which this prospectus is a part. In this prospectus, "we," "us," "our" and "our company" refer to OGE Energy Corp.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain statements that are not historical fact and constitute "forward-looking statements." Such forward-looking statements are intended to be identified by the words "anticipate", "believe", "estimate", "expect", "intend", "objective", "plan", "possible", "potential", "project" and similar expressions. Forward-looking statements are not guarantees of performance. They involve risks, uncertainties and assumptions. Our future results may differ materially from those expressed in these forward-looking statements. These statements are necessarily based upon various assumptions involving judgments with respect to the future and other risks, including, among others:

general economic conditions, including the availability of credit, the impact on capital expenditures and actions of rating agencies;

our ability and the ability of our subsidiaries to obtain financing on favorable terms;

prices and availability of electricity, coal, natural gas and natural gas liquids, each on a stand-alone basis and in relation to one another;

business conditions in the energy and natural gas midstream industries;

competitive factors, including the extent and timing of the entry of additional competition in the markets we serve;

unusual weather;

availability and prices of raw materials for current and future construction projects;

federal or state legislation and regulatory decisions (including the approval of regulatory filings related to the proposed acquisition of the Redbud power plant) and initiatives that affect cost and investment recovery, have an impact on rate structures or affect the speed and degree to which competition enters our markets;

environmental laws and regulations that may impact our operations;

changes in accounting standards, rules or guidelines;

the discontinuance of regulated accounting principles under Financial Accounting Standards Board Statement of Financial Accounting Standard No. 71, "Accounting for the Effects of Certain Types of Regulation";

creditworthiness of suppliers, customers and other contractual parties;

the higher degree of risk associated with our nonregulated businesses compared with our regulated utility business;

the impact of the proposed initial public offering of limited partner interests of OGE Enogex Partners L.P., a Delaware limited partnership; and

other risk factors listed from time to time in the reports we file with the SEC.

Edgar Filing: OGE ENERGY CORP. - Form 424B5

In light of these risks and uncertainties, there can be no assurance that the results and events contemplated by the forward-looking statements contained or incorporated by reference in this prospectus will in fact transpire. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. These risks and uncertainties are discussed in more detail under "Business," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Notes to Consolidated Financial Statements" in our Annual Report on Form 10-K for the year ended

December 31, 2007 and other documents on file with the SEC. You may obtain copies of these documents as described under "Where You Can Find More Information." We may also describe additional risk factors in the applicable prospectus supplement.

OGE ENERGY CORP.

We are an energy and energy services provider offering physical delivery and related services for both electricity and natural gas primarily in the south central United States. We conduct these activities through four business segments: (i) electric utility, (ii) natural gas transportation and storage, (iii) natural gas gathering and processing and (iv) natural gas marketing.

Our electric utility segment generates, transmits, distributes and sells electric energy in Oklahoma and western Arkansas. These operations are conducted through our subsidiary, Oklahoma Gas and Electric Company ("OG&E") and are subject to regulation by the Oklahoma Corporation Commission, the Arkansas Public Service Commission and the Federal Energy Regulatory Commission.

Our natural gas transportation and storage and natural gas gathering and processing segment operations are conducted through our subsidiary, Enogex LLC and its subsidiaries ("Enogex") which is a provider of integrated natural gas midstream services. The vast majority of Enogex's natural gas gathering, processing, transportation and storage assets are strategically located primarily in the Arkoma and Anadarko basins of Oklahoma and the Texas Panhandle.

Our natural gas marketing segment operations are conducted through our subsidiary, OGE Energy Resources, Inc. ("OERI"). Enogex has historically utilized, and is expected to continue to utilize, OERI for natural gas marketing, hedging, risk management and other related activities.

In May 2007, we formed OGE Enogex Partners L.P. (the "Partnership") as part of our strategy to further develop Enogex's natural gas midstream assets and operations. The Partnership has filed a registration statement with the SEC for a proposed initial public offering of its common units, representing limited partner interests in the Partnership (the "Offering"). At the date of this prospectus, the registration statement relating to the Offering is not effective. In connection with the Offering, we expect to contribute an approximate 25 percent membership interest in Enogex LLC to a wholly owned subsidiary of the Partnership that would serve as Enogex LLC's managing member and would control its assets and operations. A wholly owned subsidiary of ours will retain the remaining approximately 75 percent membership interest in Enogex LLC. It is currently contemplated that at the completion of the Offering, we will indirectly own an approximate 69 percent limited partner interest and a two percent general partner interest in the Partnership.

We were incorporated in Oklahoma on August 4, 1995 and became the holding company parent of OG&E and Enogex on December 31, 1996.

Our principal executive offices are located at 321 North Harvey, Post Office Box 321, Oklahoma City, Oklahoma 73101-0321. Our telephone number is (405) 553-3000.

RISK FACTORS

An investment in our shares of common stock involves risk. Prior to making a decision about investing in our shares of common stock, you should carefully consider any risk factors contained in a prospectus supplement, as well as the risk factors set forth in our most recently filed Annual Report on Form 10-K under the heading "Risk Factors" and other filings we may make from time to time with the SEC. Such factors could affect actual results and cause results to differ materially from those expressed in any forward-looking statements made by or on our behalf. Additional risks and uncertainties not currently known to us or that we currently view as immaterial may also affect our business operations.

USE OF PROCEEDS

Unless we indicate otherwise in any applicable prospectus supplement or other offering materials, we intend to add the net proceeds from the sale of the shares of common stock to our general funds and to use those proceeds for general corporate purposes, primarily to fund our operating units and subsidiaries and to repay short-term debt. The specific use of the proceeds of a particular offering of shares of common stock will be described in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following statements are summaries of certain provisions of our Restated Certificate of Incorporation and are subject to the detailed provisions thereof. Such summaries do not purport to be complete, and reference is made to our Restated Certificate of Incorporation (which is filed as Exhibit 3.01 to our Form 10-K for the year ended December 31, 1996, File No. 1-12579) for a full and complete statement of such provisions.

Authorized Shares

Under our Restated Certificate of Incorporation, we are authorized to issue 125,000,000 shares of common stock, par value \$0.01 per share, of which 92,139,696 shares were outstanding on May 31, 2008.

We are also authorized to issue 5,000,000 shares of preferred stock, par value \$0.01 per share. As discussed below under the caption "Rights to Purchase Series A Preferred Stock," we have created a series of preferred stock designated as "Series A Preferred Stock" and the number of shares constituting such series is 1,250,000. No shares of such Series A Preferred Stock and no shares of any other preferred stock are currently outstanding. Without shareholder approval, we may issue preferred stock in the future in such series as may be designated by our board of directors. In creating any such series, our board of directors has the authority to fix the rights and preferences of each series with respect to, among other things, the dividend rate, redemption provisions, liquidation preferences, sinking fund provisions, conversion rights and voting rights. The terms of any series of preferred stock that we may issue in the future may provide the holders of such preferred stock with rights that are senior to the rights of the holders of our common stock.

Dividend Rights

Before we can pay any dividends on our common stock, the holders of our preferred stock that may be outstanding are entitled to receive their dividends at the respective rates as may be provided for the shares of their series. Because we are a holding company and conduct all of our operations through our subsidiaries, our cash flow and ability to pay dividends will be dependent on the earnings and cash flows of our subsidiaries and the distribution or other payment of those earnings to us in the form of dividends or distributions, or in the form of repayments of loans or advances to us. We expect to derive principally all of the funds required by us to enable us to pay dividends on our common stock from dividends paid by OG&E, on OG&E's common stock, and from distributions paid by Enogex, on Enogex's limited liability company interests. Our ability to receive dividends on OG&E's common stock is subject to the prior rights of the holders of any OG&E preferred stock that may be outstanding and the covenants of OG&E's certificate of incorporation and OG&E's debt instruments limiting the ability of OG&E to pay dividends. Our ability to receive distributions on Enogex's limited liability company interests is subject to the prior rights of existing and future holders of such limited liability company interests that may be outstanding and the covenants of Enogex's debt instruments (including its credit facility) limiting the ability of Enogex to pay distributions.

Edgar Filing: OGE ENERGY CORP. - Form 424B5

Under OG&E's certificate of incorporation, if any shares of its preferred stock are outstanding, dividends (other than dividends payable in common stock), distributions or acquisitions of OG&E common stock:

may not exceed 50% of OG&E's net income for a prior 12-month period, after deducting dividends on any preferred stock during the period, if the sum of the capital represented by the common stock, premiums on capital stock (restricted to premiums on common stock only by SEC orders), and surplus accounts is less than 20% of capitalization;

may not exceed 75% of OG&E's net income for such 12-month period, as adjusted if this capitalization ratio is 20% or more, but less than 25%; and

if this capitalization ratio exceeds 25%, dividends, distributions or acquisitions may not reduce the ratio to less than 25% except to the extent permitted by the provisions described in the above two bullet points.

OG&E's certificate of incorporation further provides that no dividend may be declared or paid on the OG&E common stock until all amounts required to be paid or set aside for any sinking fund for the redemption or purchase of OG&E cumulative preferred stock, par value \$25 per share, have been paid or set aside. Currently, no shares of OG&E preferred stock are outstanding and no portion of the retained earnings of OG&E is presently restricted by these provisions.

Under Enogex's current credit facility, Enogex generally may not make distributions if an event of default exists and otherwise may make monthly and quarterly distributions in amounts not to exceed (i) the amount by which Enogex's cash on hand exceeds its current and anticipated needs, including, without limitation, for operating expenses, debt service, acquisitions and a reasonable contingency reserve (as determined from time to time by Enogex's management in accordance with Enogex's operating agreement) or (ii) after the occurrence of the initial public offering of the Partnership, if greater than the amount set forth in clause (i), the aggregate amount necessary to provide Enogex's post-initial public offering managing member, taking into account such managing member's allocable portion of any such distribution, and the Partnership with any shortfall in the Partnership's available cash (as defined in the Partnership limited partnership agreement) to fund the minimum quarterly distributions (as defined in the limited partnership agreement) to the Partnership's unitholders.

Voting Rights

Each holder of common stock and each holder of Series A Preferred Stock that may be issued in the future is entitled to one vote per share upon all matters upon which shareowners have the right to vote and generally will vote together as one class. Our board of directors has the authority to fix conversion and voting rights for any new series of preferred stock (including the right to elect directors upon a failure to pay dividends), provided that no share of preferred stock can have more than one vote per share. If, however, any Series A Preferred Stock is issued in the future and if and when dividends payable on such Series A Preferred Stock that may be issued in the future are in default for six full quarterly dividends and thereafter until all defaults shall have been paid, the holders of the Series A Preferred Stock, voting separately as one class, to the exclusion of the holders of common stock, will be entitled to elect two directors.

Our Restated Certificate of Incorporation also contains "fair price" provisions, which require the approval by the holders of at least 80% of the voting power of our outstanding voting stock as a condition for mergers, consolidations, sales of substantial assets, issuances of capital stock and certain other business combinations and transactions involving us and any substantial (10% or more) holder of our voting stock unless the transaction is either approved by a majority of the members of our board of directors who are unaffiliated with the substantial holder or specified minimum price and procedural requirements are met. The provisions summarized in the foregoing sentence may be amended only by

the approval of the holders of at least 80% of the voting power of our outstanding voting stock. Our voting stock consists of all outstanding shares entitled to vote generally in the election of directors and currently consists of our common stock.

Our voting stock does not have cumulative voting rights for the election of directors. Subject to the rights of the holders of the Series A Preferred Stock (if any are issued) to elect directors under certain circumstances, our Restated Certificate of Incorporation and By-Laws contain provisions stating that: (1) the board of directors will be divided into three classes as nearly equal in number as possible with staggered terms of office so that only approximately one-third of the directors are elected at each annual meeting of shareowners; (2) directors may be removed only with the approval of the holders of at least 80% of the voting power of our shares generally entitled to vote; (3) any vacancy on the board of directors will be filled only by the remaining directors then in office, though less than a quorum; (4) advance notice of introduction by shareowners of business at annual shareowner meetings and of shareowner nominations for the election of directors must be given and that certain information must be provided with respect to such matters; (5) shareowner action may be taken only at an annual meeting of shareowners or a special meeting of shareowners called by the President or the board of directors; and (6) the foregoing provisions may be amended only by the approval of the holders of at least 80% of the voting power of the shares generally entitled to vote. These provisions, along with the "fair price" provisions discussed above, the business combination and control share acquisition provision discussed below and the Rights described below, may deter attempts to cause a change in control of our company (by proxy contest, tender offer or otherwise) and will make more difficult a change in control that is opposed by our board of directors.

Liquidation Rights

Subject to the prior rights of the holders of the Series A Preferred Stock that may be issued in the future and the possible prior rights of holders of other preferred stock that may be issued in the future, in the event of our liquidation, dissolution or winding up, whether voluntary or involuntary, the holders of our common stock are entitled to receive the remaining assets and funds pro rata, according to the number of shares of common stock held.

Other Provisions

Oklahoma has enacted legislation aimed at regulating takeovers of corporations and restricting specified business combinations with interested shareholders. Under the Oklahoma General Corporation Act, a shareowner who acquires more than 15% of the outstanding voting shares of a corporation subject to the statute, but less than 85% of such shares, is prohibited from engaging in specified "business combinations" with the corporation for three years after the date that the shareowner became an interested stockholder. This provision does not apply if (1) before the acquisition date the corporation's board of directors has approved either the business combination or the transaction in which the shareowner became an interested shareowner or (2) the corporation's board of directors approves the business combination and at least two-thirds of the outstanding voting stock of the corporation not owned by the interested shareowner vote to authorize the business combination. The term "business combination" encompasses a wide variety of transactions with or caused by an interested shareowner in which the interested shareowner receives or could receive a benefit on other than a pro rata basis with other shareowners, including mergers, specified asset sales, specified issuances of additional shares to the interested shareowner, transactions with the corporation that increase the proportionate interest of the interested shareowner or transactions in which the interested shareowner receives certain other benefits.

Oklahoma law also contains control share acquisition provisions. These provisions generally require the approval of the holders of a majority of the corporation's voting shares held by disinterested shareowners before a person purchasing one-fifth or more of the corporation's voting shares can vote

the shares in excess of the one-fifth interest. Similar shareholder approvals are required at one-third and majority thresholds.

The board of directors may allot and issue shares of common stock for such consideration, not less than the par value thereof, as it may from time to time determine. No holder of common stock has the preemptive right to subscribe for or purchase any part of any new or additional issue of stock or securities convertible into stock. Our common stock is not subject to further calls or to assessment by us.

Our common stock is listed on the New York Stock Exchange. BNY Mellon Shareowner Services is the Transfer Agent and Registrar for our common stock.

Rights to Purchase Series A Preferred Stock

On August 7, 1995, our board of directors declared a dividend of one preferred stock purchase right (a "Right" or "Rights") for each outstanding share of our common stock. As a result of the two-for-one split of our common stock paid in the form of a stock dividend on June 15, 1998, one-half a Right automatically trades with each share of common stock. Our board of directors subsequently determined it to be in our best interests and in the best interests of our shareholders to amend and restate our Rights Agreement to extend its term to December 11, 2010 and to change the Purchase Price (as described below) to \$130. If and when the Rights become exercisable, each Right will entitle the holder of record to purchase from us one one-hundredth of a share of our Series A Preferred Stock, par value \$0.01 per share ("Series A Preferred Stock"), at a price of \$130 per one one-hundredth of a share (the "Purchase Price"), although the price and the securities to be purchased are subject to adjustment as described below. The description and terms of the Rights are set forth in an Amended and Restated Rights Agreement dated October 10, 2000 (the "Rights Agreement") between us and ChaseMellon Shareholder Services LLC (now BNY Mellon Shareowner Services), as Rights Agent (the "Rights Agent").

Initially, (i) the Rights will not be exercisable, (ii) separate evidence of ownership of the Rights will not be sent to shareowners, (iii) the Rights will be evidenced by the common stock certificates or electronic book-entry registration of such common stock, (iv) the Rights will automatically trade with the common stock, (v) the Rights will be transferred with and only with such common stock, and (vi) the surrender for transfer of any certificates for common stock outstanding, or the book-entry transfer of such common stock, will also constitute the transfer of the Rights associated with the common stock represented thereby.

Separate certificates representing the Rights will be distributed as soon as practicable after the "Distribution Date," which is the close of business on the earlier of:

the tenth day after a public announcement (or, if earlier, the date a majority of our board of directors becomes aware) that a person or group of affiliated or associated persons acquired, or obtained the right to acquire, beneficial ownership of our common stock or other securities representing 20% or more of the voting power of all of our securities then outstanding generally entitled to vote for the election of directors (such person or group being called an "Acquiring Person" and such date of first public announcement being called the "Stock Acquisition Date"), or

the tenth day after the commencement of, or public announcement of an intention to commence, a tender or exchange offer the consummation of which would result in the ownership of 20% or more of our outstanding voting power (the earlier of the dates in clause (i) or (ii) being called the "Distribution Date").

As soon as practicable following the Distribution Date, separate certificates representing the Rights ("Right Certificates") will be mailed to holders of record of our common stock as of the close

of business on the Distribution Date, and such certificates alone will evidence the Rights from and after the Distribution Date.

Even if they have acquired, or obtained the right to acquire, beneficial ownership of 20% or more of our voting power, each of the following persons (an "Exempt Person") will not be deemed to be an Acquiring Person: (i) OG&E, us, any of our subsidiaries, any of our employee benefit plans or employee stock plans or of any of our subsidiaries or of OG&E; and (ii) any person who becomes an Acquiring Person solely by virtue of a reduction in the number of outstanding shares of common stock, unless and until such person shall become the beneficial owner of, or make a tender offer for any additional shares of common stock.

The holders of the Rights are not required to take any action until the Rights become exercisable. The Rights are not exercisable until the Distribution Date. The Rights will expire at the close of business on December 11, 2010, unless earlier redeemed or exchanged by us as described below.

In order to protect the value of the Rights to the holders, the Purchase Price and the number of shares of Series A Preferred Stock (or other securities or property) issuable upon exercise of the Rights are subject to adjustment from time to time (i) in the event of a stock dividend on, or subdivision, combination or reclassification of, our common stock or Series A Preferred Stock, (ii) upon the grant to holders of the Series A Preferred Stock of certain rights or warrants to subscribe for Series A Preferred Stock or convertible securities at less than the current market price of the Series A Preferred Stock or (iii) upon the distribution to holders of the Series A Preferred Stock of evidences of indebtedness or assets (excluding dividends payable in Series A Preferred Stock) or of subscription rights or warrants (other than those referred to above).

These adjustments are called anti-dilution provisions and are intended to ensure that a holder of Rights will not be adversely affected by the occurrence of such events. Except under limited circumstances, we are not required to adjust the Purchase Price until cumulative adjustments require a change of at least 1% in the Purchase Price.

In the event (i) any Person (other than an Exempt Person) becomes an Acquiring Person (except pursuant to an offer for all outstanding shares of common stock that the independent directors determine prior to the time such offer is made to be fair to and otherwise in our best interests and in the best interests of our shareowners) or (ii) any Exempt Person who is the beneficial owner of 20% or more of our outstanding voting power fails to continue to qualify as an Exempt Person, then each holder of record of a Right, other than the Acquiring Person, will thereafter have the right to receive, upon payment of the Purchase Price, our common stock (or, in certain circumstances, cash, property or other securities) having a market value at the time of the transaction equal to twice the Purchase Price. Rights are not exercisable following such event, however, until such time as the Rights are no longer redeemable by us as set forth below. Any Rights that are or were at any time, on or after the Distribution Date, beneficially owned by an Acquiring Person shall become null and void.

For example, at an exercise price of \$130 per Right, each Right not owned by an Acquiring Person (or by certain related parties) following an event set forth in the preceding paragraph would entitle its holder to purchase \$260 worth of common stock (or other consideration, as noted above) for \$130. Assuming that the common stock had a per share value of \$20 at such time, the holder of each valid Right would be entitled to purchase 13 shares of common stock for \$130.

Subject to certain limited exceptions, after the Rights have become exercisable, if (i) we are acquired in a merger or other business combination (in which any shares of our common stock are changed into or exchanged for other securities or assets) or (ii) more than 50% of our and our subsidiaries' assets or earning power (taken as a whole) are sold or transferred in one or a series of related transactions, the Rights Agreement provides that proper provision shall be made so that each holder of record of a Right will have the right to receive, upon payment of the Purchase Price, that

number of shares of common stock of the acquiring company having a market value at the time of such transaction equal to two times the Purchase Price.

To the extent that insufficient shares of common stock are available for the exercise in full of the Rights, holders of Rights will receive upon exercise shares of common stock to the extent available and then other of our securities, including units of shares of Series A Preferred Stock with terms substantially comparable to those of the common stock, property, debt securities, or cash, in proportions determined by us, so that the aggregate value received is equal to twice the Purchase Price. We, however, shall not be required to issue any cash, property or debt securities upon exercise of the Rights to the extent their aggregate value would exceed the amount of cash we would otherwise be entitled to receive upon exercise in full of the then exercisable Rights.

No fractional shares of Series A Preferred Stock or common stock will be required to be issued upon exercise of the Rights and, in lieu thereof, a payment in cash may be made to the holder of such Rights equal to the same fraction of the current market value of a share of Series A Preferred Stock or, if applicable, common stock.

At any time until the earlier of (i) ten days after the Stock Acquisition Date (subject to extension by the board of directors) or (ii) the date the Rights are exchanged pursuant to the Rights Agreement, we may redeem the Rights in whole, but not in part, at a price of \$0.01 per Right (the "Redemption Price"). Immediately upon the action of our board of directors authorizing redemption of the Rights, the right to exercise the Rights will terminate, and the only right of the holders of Rights will be to receive the Redemption Price without any interest thereon.

At any time after any Person becomes an Acquiring Person, the board of directors may, at its option, exchange all or part of the outstanding Rights (other than Rights held by the Acquiring Person and certain related parties) for shares of common stock at an exchange ratio of two shares of common stock per Right (subject to certain anti-dilution adjustments). The board may not effect such an exchange, however, at any time any Person or group owns 50% or more of our voting power. Immediately after the board orders such an exchange, the right to exercise the Rights shall terminate and the holders of Rights shall thereafter only be entitled to receive shares of common stock at the applicable exchange ratio.

Under presently existing federal income tax law, the issuance of the Rights is not taxable to us or to shareowners and will not change the way in which shareowners can presently trade our shares of common stock. If the Rights should become exercisable, shareowners, depending on then existing circumstances, may recognize taxable income.

The Rights Agreement may be amended by our board of directors. After the Distribution Date, however, the provisions of the Rights Agreement may be amended by the board only to cure any ambiguity, to make changes which do not adversely affect the interests of holders of Rights (excluding the interests of any Acquiring Person or an affiliate or associate of an Acquiring Person), or to shorten or lengthen any time period under the Rights Agreement; provided, however, that no amendment to adjust the time period governing redemption shall be made at such time as the Rights are not redeemable. In addition, no supplement or amendment may be made which changes the Redemption Price, the final expiration date, the Purchase Price or the number of one one-hundredths of a share of Series A Preferred Stock for which a Right is exercisable, unless at the time of such supplement or amendment there has been no occurrence of a Stock Acquisition Date and such supplement or amendment does not adversely affect the interests of the holders of Right Certificates (other than an Acquiring Person or an affiliate or associate of an Acquiring Person).

Until a right is exercised, the holder, as such, will have no rights as a shareowner of us, including, without limitation, the right to vote or to receive dividends.

Edgar Filing: OGE ENERGY CORP. - Form 424B5

The Rights may have certain anti-takeover effects. The Rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by the board of directors and, accordingly, will make more difficult a change of control that is opposed by our board of directors. However, the Rights should not interfere with a proposed change of control (including a merger or other business combination) approved by a majority of the board of directors since the Rights may be redeemed by us at \$0.01 per Right at any time until ten days after the Stock Acquisition Date (subject to extension by the board of directors). Thus, the Rights are intended to encourage persons who may seek to acquire control of us to initiate such an acquisition through negotiations with the board of directors. Nevertheless, the Rights also may discourage a third party from making a partial tender offer or otherwise attempting to obtain a substantial equity position in, or seeking to obtain control of, us. To the extent any potential acquirers are deterred by the Rights, the Rights may have the effect of preserving incumbent management in office.

This summary description of the Rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement, which is filed as an Exhibit to our Report on Form 8-K dated October 26, 2000 (File No. 1-12579), and is incorporated herein by reference.

PLAN OF DISTRIBUTION

We may sell the shares of common stock offered by this prospectus through underwriters, through dealers, through agents, directly to other purchasers or through a combination of these methods, as described in the prospectus supplement relating to an offering of shares of common stock. The distribution of the shares of common stock may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to such prevailing market prices, or at negotiated prices.

The applicable prospectus supplement will contain specific information relating to the terms of the offering, including:

the name or names of any underwriters or agents;

the purchase price of the shares of common stock;

our net proceeds from the sale of the shares of common stock;

any underwriting discounts and other items constituting underwriters' compensation; and

the initial public offering price and any discounts or concessions allowed or re-allowed or paid to dealers.

By Underwriters

If underwriters are used in the sale, the shares of common stock will be acquired by the underwriters for their own account. Underwriters may offer the common stock directly or through underwriting syndicates represented by one or more managing underwriters. The underwriters may resell the common stock in one or more transactions, including negotiated transactions, at a fixed public offering price, which may be changed, or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the shares of common stock will be subject to certain conditions. The initial public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

By Dealers

If dealers are used in the sale, unless otherwise specified in the applicable prospectus supplement, we will sell the shares of common stock to the dealers as principals. The dealers may then resell the common stock to the public at varying prices to be determined by the dealers at the time of resale. The

applicable prospectus supplement will contain more information about the dealers, including the names of the dealers and the terms of our agreement with them.

By Agents and Direct Sales

We may sell the shares of common stock directly to the public, without the use of underwriters, dealers or agents. We may also sell the common stock through agents we designate from time to time. The applicable prospectus supplement will contain more information about the agents, including the names of the agents and any commission we agree to pay the agents.

General Information

Underwriters, dealers and agents that participate in the distribution of shares of common stock may be deemed to be underwriters, and any discounts or commissions received by them from us and any profit on the resale of shares of common stock by them may be deemed to be underwriting discounts and commissions under the Securities Act of 1933. Any person who may be deemed to be an underwriter will be identified, and any compensation received from us will be described in the prospectus supplement.

Our outstanding common stock is listed for trading on the New York Stock Exchange. We may engage in at-the-market offerings into an existing trading market in accordance with Rule 415(a)(4). Any at-the-market offering will be through an underwriter or underwriters acting as principal or agent for us.

Under agreements into which we may enter in connection with the sale of shares of common stock, underwriters, dealers and agents who participate in the distribution of shares of common stock may be entitled to indemnification by us against specified liabilities, including liabilities under the Securities Act of 1933.

Agents, dealers and underwriters may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

LEGAL OPINIONS

Legal opinions relating to the validity of the shares of common stock and certain other matters will be rendered by our counsel, Rainey, Ross, Rice & Binns, P.L.L.C., Oklahoma City, Oklahoma, and Jones Day, Chicago, Illinois. Rainey, Ross, Rice & Binns, P.L.L.C. will pass on matters pertaining to local laws and as to these matters other counsel will rely on their opinions.

As of May 31, 2008, Mr. Hugh D. Rice, of counsel to Rainey, Ross, Rice & Binns, P.L.L.C., owned a beneficial interest of approximately 3,000 shares of common stock of our company.

Certain legal matters will be passed upon for any underwriters, dealers or agents named in a prospectus supplement by such underwriters' counsel as may be named in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of OGE Energy Corp. appearing in OGE Energy Corp.'s Annual Report (Form 10-K) for the year ended December 31, 2007 (including the schedule appearing therein), and the effectiveness of OGE Energy Corp.'s internal control over financial reporting as of December 31, 2007, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements and schedule are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's web site at <http://www.sec.gov>. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room.

The SEC allows us to "incorporate by reference" in this prospectus the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information contained in or incorporated by reference in this prospectus. We incorporate by reference the following documents:

Our Annual Report on Form 10-K for the year ended December 31, 2007;

Our Quarterly Report on Form 10-Q for the three months ended March 31, 2008; and

Our Current Reports on Form 8-K, filed with the SEC on January 10, 2008, January 25, 2008, January 31, 2008, March 4, 2008, March 11, 2008, April 7, 2008, May 28, 2008 and June 3, 2008.

We also incorporate by reference all future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 on or after the date of this prospectus until we sell all of the shares of common stock referred to herein.

OGE ENERGY CORP.

COMMON STOCK, \$0.01 PAR VALUE PER SHARE

QuickLinks

[OGE ENERGY CORP.](#)

[COMMON STOCK, \\$0.01 PAR VALUE PER SHARE](#)

[PROSPECTUS SUPPLEMENT](#)

[ABOUT THIS PROSPECTUS SUPPLEMENT](#)

[FORWARD-LOOKING STATEMENTS](#)

[OGE ENERGY CORP.](#)

[RISK FACTORS](#)

[USE OF PROCEEDS](#)

[PLAN OF DISTRIBUTION](#)

[LEGAL OPINIONS](#)

[ABOUT THIS PROSPECTUS](#)

[FORWARD-LOOKING STATEMENTS](#)

[OGE ENERGY CORP.](#)

[RISK FACTORS](#)

[USE OF PROCEEDS](#)

[DESCRIPTION OF CAPITAL STOCK](#)

[PLAN OF DISTRIBUTION](#)

[LEGAL OPINIONS](#)

[EXPERTS](#)

[WHERE YOU CAN FIND MORE INFORMATION](#)

[OGE ENERGY CORP.](#)

[COMMON STOCK, \\$0.01 PAR VALUE PER SHARE](#)