ROYAL BANK OF CANADA
Form 424B2
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The information in this preliminary pricing supplement is not complete and may be changed. This preliminary pricing supplement is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.
Subject to Completion. Dated April 10, 2017.
Pricing Supplement SPBELN 229-C to the Prospectus dated January 8, 2016, the Series G Prospectus Supplement dated January 8, 2016, and the
Product Prospectus Supplement PB-1 dated January 14, 2016
Royal Bank of Canada
$
Leveraged Buffered S&P 500® Index-Linked Notes, due , 2019
The notes will not bear interest. The amount that you will be paid on your notes on the stated maturity date (expected to be the third scheduled business day after the determination date) is based on the performance of the S&P 500® Index (which we refer to as the "underlier") as measured from the trade date to and including the determination date (expected to be between 24 and 27 months after the trade date). If the final underlier level on the determination date is greater than the initial underlier level (set on the trade date and may be higher or lower than the actual closing level of the underlier on the trade date), the return on your notes will be positive, subject to the maximum settlement amount (expected to be between $1,202.58 and $1,238.14 for each $1,000 principal amount of the notes). If the final underlier level is less than the buffer level, the return on your notes will be negative. You could lose your entire investment in the notes.
To determine your payment at maturity, we will calculate the underlier return, which is the percentage increase or decrease in the final underlier level from the initial underlier level. On the stated maturity date, for each $1,000 principal amount of your notes, you will receive an amount in cash equal to:

- if the underlier return is positive (the final underlier level is greater than the initial underlier level), the sum of (i) $1,000 plus (ii) the product of (a) $1,000 times (b) the upside participation rate of 140% times (c) the underlier return, subject to the maximum settlement amount; or
- if the underlier return is zero or negative but not below -12.50% (the final underlier level is equal to or less than the initial underlier level but not by more than 12.50%), $1,000; or
- if the underlier return is negative and is below -12.50% (the final underlier level is less than the initial underlier level by more than 12.50%), the sum of (i) $1,000 plus (ii) the product of (a) 100/87.50 (which is approximately 1.1429) times (b) the sum of the underlier return plus 12.50% times (c) $1,000. This amount will be less than $1,000.

Our initial estimated value of the notes as of the date of this preliminary pricing supplement is $992.19 per $1,000 in principal amount, which is less than the original issue price. The final pricing supplement relating to the notes will set forth our estimate of the initial value of the notes as of the trade date, which will not be less than $972.19 per $1,000 in principal amount. The actual value of the notes at any time will reflect many factors, cannot be predicted with accuracy, and may be less than this amount. We describe our determination of the initial estimated value in more detail below.
Your investment in the notes involves certain risks, including, among other things, our credit risk. See the section "Additional Risk Factors Specific to Your Notes" beginning on page PS-7 of this pricing supplement.
Non-U.S. holders will not be subject to withholding on dividend equivalent payments under Section 871(m) of the U.S. Internal Revenue Code. Please see the section below, "Supplemental Discussion of U.S. Federal Income Tax Consequences," which applies to the notes.
The foregoing is only a brief summary of the terms of your notes. You should read the additional disclosure provided in this pricing supplement so that you may better understand the terms and risks of your investment.
Original issue date: , 2017 Original issue price: [100.00]% of the principal amount

Underwriting discount: [0.00]% of the principal amount Net proceeds to the issuer: [100.00]% of the principal amount
See “Supplemental Plan of Distribution (Conflicts of Interest)” on page PS-18 of this pricing supplement.
The issue price, underwriting discount and net proceeds listed above relate to the notes we sell initially. We may decide to sell additional notes after the date of this pricing supplement, at issue prices and with underwriting discounts and net proceeds that differ from the amounts set forth above. The return (whether positive or negative) on your investment in the notes will depend in part on the issue price you pay for such notes.
Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this pricing supplement, the accompanying product prospectus supplement, the accompanying prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense. The notes will not constitute deposits that are insured by the Canada Deposit Insurance Corporation, the U.S. Federal Deposit Insurance Corporation or any other Canadian or U.S. governmental agency or instrumentality.
RBC Capital Markets, LLC
Pricing Supplement dated , 2017.

SUMMARY INFORMATION

We refer to the notes we are offering by this pricing supplement as the "offered notes" or the "notes." Each of the offered notes, including your notes, has the terms described below. Please note that in this pricing supplement, references to "Royal Bank of Canada," "we," "our" and "us" mean only Royal Bank of Canada and all references to "$" or "dollar" are to United States dollars. Also, references to the "accompanying prospectus" mean the accompanying prospectus, dated January 8, 2016, as supplemented by the accompanying prospectus supplement, dated January 8, 2016, of Royal Bank of Canada relating to the Senior Medium-Term Notes, Series G program of Royal Bank of Canada and references to the "accompanying product prospectus supplement PB-1" mean the accompanying product prospectus supplement PB-1, dated January 14, 2016, of Royal Bank of Canada.

This section is meant as a summary and should be read in conjunction with the section entitled "General Terms of the Notes" beginning on page PS-4 of the accompanying product prospectus supplement PB-1. Please note that certain features described in the accompanying product prospectus supplement PB-1 are not applicable to the notes. This pricing supplement supersedes any conflicting provisions of the accompanying product prospectus supplement PB-1.

Key Terms

Issuer: Royal Bank of Canada

Underlier: the S&P 500® Index (Bloomberg symbol, "SPX Index"), as published by S&P Dow Jones Indices, LLC ("S&P," or the "underlier sponsor")

Specified currency: U.S. dollars ("$")

Denominations: $1,000 and integral multiples of $1,000 in excess of $1,000. The notes may only be transferred in amounts of $1,000 and increments of $1,000 thereafter

Principal amount: each note will have a principal amount of $1,000; $ in the aggregate for all the offered notes; the aggregate principal amount of the offered notes may be increased if the issuer, at its sole option, decides to sell an additional amount of the offered notes on a date subsequent to the date of this pricing supplement

Purchase at amount other than principal amount: the amount we will pay you at the stated maturity date for your notes will not be adjusted based on the issue price you pay for your notes, so if you acquire notes at a premium (or discount) to principal amount and hold them to the stated maturity date, it could affect your investment in a number of ways. The return on your investment in such notes will be lower (or higher) than it would have been had you purchased the notes at a price equal to the principal amount. Also, the buffer level would not offer the same measure of protection to your investment as would be the case if you had purchased the notes at the principal amount. Additionally, the cap level would be triggered at a lower (or higher) percentage return than indicated below, relative to your initial investment. See "If the Original Issue Price for Your Notes Represents a Premium to the Principal Amount, the Return on Your Notes Will Be Lower Than the Return on Notes for Which the Original Issue Price Is Equal to the Principal Amount or Represents a Discount to the Principal Amount" on page PS-11 of this pricing supplement

Cash settlement amount (on the stated maturity date): for each $1,000 principal amount of your notes, we will pay you on the stated maturity date an amount in cash equal to:

- if the final underlier level is greater than or equal to the cap level, the maximum settlement amount;
- if the final underlier level is greater than the initial underlier level but less than the cap level, the sum of (1) $1,000 plus (2) the product of (i) $1,000 times (ii) the upside participation rate times (iii) the underlier return;
- if the final underlier level is equal to or less than the initial underlier level but greater than or equal to the buffer level, $1,000; or
- if the final underlier level is less than the buffer level, the sum of (1) $1,000 plus (2) the product of (i) the buffer rate times (ii) the sum of the underlier return plus the buffer amount times (iii) $1,000. In this case, the cash settlement amount will be less than the principal amount of the notes, and you will lose some or all of the principal amount.

Initial underlier level (to be set on the trade date and may be higher or lower than the actual closing level of the underlier on the trade date):

Final underlier level: the closing level of the underlier on the determination date, except in the limited circumstances described under "General Terms of the Notes — Determination Dates and Averaging Dates" on page PS-5 of the accompanying product prospectus supplement PB-1 and subject to adjustment as provided under "General Terms of the Notes — Unavailability of the Level of the Underlier" on page PS-6 of the accompanying product prospectus supplement PB-1.

Underlier return: the quotient of (1) the final underlier level minus the initial underlier level divided by (2) the initial underlier level, expressed as a percentage
Upside participation rate: 140%
Cap level (to be set on the trade date): expected to be between 114.47% and 117.01% of the initial underlier level
Maximum settlement amount (to be set on the trade date): for each $1,000 principal amount of the notes, expected to be between $1,202.58 and $1,238.14
Buffer level: 87.50% of the initial underlier level (equal to an underlier return of -12.50%)
Buffer amount: 12.50%

Buffer rate: the quotient of the initial underlier level divided by the buffer level, which equals approximately 114.29%
Trade date:
Original issue date (settlement date) (to be set on the trade date): expected to be the fifth scheduled business day following the trade date
Determination date (to be set on the trade date): a specified date that is expected to be between 24 and 27 months after the trade date, subject to adjustment as described under “General Terms of the Notes — Determination Dates and Averaging Dates” on page PS-5 of the accompanying product prospectus supplement PB-1
Stated maturity date (to be set on the trade date): a specified date that is expected to be the third scheduled business day after the determination date, subject to adjustment as described under "General Terms of the Notes — Stated Maturity Date” on page PS-5 of the accompanying product prospectus supplement PB-1
No interest: the offered notes will not bear interest
No listing: the offered notes will not be listed on any securities exchange or interdealer quotation system
No redemption: the notes are not subject to redemption prior to maturity
Closing level: the official closing level of the underlier or any successor underlier published by the underlier sponsor on such trading day for such underlier
Business day: as described under “General Terms of the Notes — Special Calculation Provisions — Business Day” on page PS-11 of the accompanying product prospectus supplement PB-1
Trading day: as described under “General Terms of the Notes — Special Calculation Provisions — Trading Day” on page PS-11 of the accompanying product prospectus supplement PB-1
Use of proceeds and hedging: as described under “Use of Proceeds and Hedging” on page PS-13 of the accompanying product prospectus supplement PB-1
ERISA: as described under “Employee Retirement Income Security Act” on page PS-20 of the accompanying product prospectus supplement PB-1
Calculation agent: RBC Capital Markets, LLC (“RBCCM”)
Dealer: RBCCM
U.S. tax treatment: by purchasing a note, each holder agrees (in the absence of a change in law, an administrative determination or a judicial ruling to the contrary) to treat the note as a pre-paid cash-settled derivative contract for U.S. federal income tax purposes. However, the U.S. federal income tax consequences of your investment in the notes are uncertain and the Internal Revenue Service could assert that the notes should be taxed in a manner that is different from that described in the preceding sentence. Please see the discussion in the accompanying prospectus under “Tax Consequences,” the discussion in the accompanying prospectus supplement under “Certain Income Tax Consequences,” and the discussion (including the opinion of our counsel Morrison & Foerster LLP) in the accompanying product prospectus supplement PB-1 under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” and the discussion below under “Supplemental Discussion of U.S. Federal Income Tax Consequences,” which apply to the notes.
Canadian tax treatment: for a discussion of certain Canadian federal income tax consequences of investing in the notes, please see the section entitled “Tax Consequences — Canadian Taxation” in the accompanying prospectus
CUSIP no.: 78012KJ57
ISIN no.: US78012KJ572
FDIC: the notes will not constitute deposits that are insured by the Federal Deposit Insurance Corporation, the Canada Deposit Insurance Corporation or any other Canadian or U.S. governmental agency
The trade date, the determination date and the stated maturity date are subject to change. These dates will be set forth in the final pricing supplement that will be made available in connection with sales of the notes.

HYPOTHETICAL EXAMPLES

The following table and chart are provided for purposes of illustration only. They should not be taken as an indication or prediction of future investment results and are intended merely to illustrate the impact that various hypothetical final underlier levels on the determination date could have on the cash settlement amount at maturity, assuming all other variables remain constant.

The examples below are based on a range of final underlier levels that are entirely hypothetical. No one can predict what the underlier level will be on any day during the term of your notes, and no one can predict what the final underlier level will be. The underlier has been highly volatile in the past—meaning that the underlier level has changed considerably in relatively short periods—and its performance cannot be predicted for any future period.

The information in the following examples reflects hypothetical rates of return on the notes assuming that they are purchased on the original issue date with a $1,000 principal amount and are held to maturity. If you sell your notes in any secondary market prior to maturity, your return will depend upon the market value of your notes at the time of sale, which may be affected by a number of factors that are not reflected in the table below, such as interest rates and the volatility of the underlier. In addition, assuming no changes in market conditions or our creditworthiness and any other relevant factors, the value of your notes on the trade date (as determined by reference to pricing models used by RBCCM and taking into account our credit spreads) will be, and the price you may receive for your notes may be, significantly less than the principal amount. For more information on the value of your notes in the secondary market, see "Additional Risk Factors Specific to Your Notes — The Price, if any, at Which You May Be Able to Sell Your Notes Prior to Maturity May Be Less than the Original Issue Price and Our Initial Estimated Value" below. The information in the table also reflects the key terms and assumptions in the box below.

Key Terms and Assumptions	
Principal amount	$1,000
Upside participation rate	140%
Hypothetical cap level	114.47% of the initial underlier level
Hypothetical maximum settlement amount	$1,202.58
Buffer level	87.50% of the initial underlier level
Buffer rate	, which equals approximately 114.29%
Buffer amount	12.50%
Neither a market disruption event nor a non-trading day occurs on the originally scheduled determination date	
No change affecting the method by which the underlier sponsor calculates the underlier	
Notes purchased on original issue date at a price equal to the principal amount and held to the stated maturity date	

Moreover, we have not yet set the initial underlier level that will serve as the baseline for determining the underlier return and the amount that we will pay on your notes, if any, at maturity. We will not do so until the trade date. As a result, the actual initial underlier level may differ substantially from the underlier level prior to the trade date and may be higher or lower than the actual closing level of the underlier on the trade date.

For these reasons, the actual performance of the underlier over the term of your notes, as well as the amount payable at maturity, if any, may bear little relation to the hypothetical examples shown below or to the historical underlier levels shown elsewhere in this pricing supplement. For information about the historical levels of the underlier during recent periods, see "The Underlier—Historical Performance of the Underlier" below. Before investing in the notes, you should consult publicly available information to determine the levels of the underlier between the date of this pricing supplement and the date of your purchase of the notes.

Also, the hypothetical examples shown below do not take into account the effects of applicable taxes. Because of the U.S. tax treatment applicable to your notes, tax liabilities could affect the after-tax rate of return on your notes to a comparatively greater extent than the after-tax return on the stocks included in the underlier (the "underlier stocks").

The levels in the left column of the table below represent hypothetical final underlier levels and are expressed as percentages of the initial underlier level. The amounts in the right column represent the hypothetical cash settlement amounts, based on the corresponding hypothetical final underlier level (expressed as a percentage of the initial underlier level), and are expressed as percentages of the principal amount of a note (rounded to the nearest

one-thousandth of a percent). Thus, a hypothetical cash settlement amount of 100.000% means that the value of the cash payment that we would deliver for each $1,000 principal amount of the notes at maturity would equal the principal amount of a note, based on the corresponding hypothetical final underlier level (expressed as a percentage of the initial underlier level) and the assumptions noted above.

Hypothetical Final Underlier Level (as a Percentage of the Initial Underlier Level)	Hypothetical Cash Settlement Amount (as a Percentage of the Principal Amount)
150.00%	120.258%
140.00%	120.258%
130.00%	120.258%
120.00%	120.258%
114.47%	120.258%
110.00%	114.000%
107.00%	109.800%
105.00%	107.000%
100.00%	100.000%
95.00%	100.000%
87.50%	100.000%
80.00%	91.429%
75.00%	85.714%
50.00%	57.143%
25.00%	28.571%
0.00%	0.000%

If, for example, the final underlier level were determined to be 25.00% of the initial underlier level, the cash settlement amount that we would deliver on your notes at maturity would be approximately 28.571% of the principal amount of your notes, as shown in the hypothetical cash settlement amount column of the table above. As a result, if you purchased your notes at the principal amount on the settlement date and held them to maturity, you would lose approximately 71.429% of your investment.

If the final underlier level were determined to be 150.00% of the initial underlier level, the cash settlement amount that we would deliver on your notes at maturity would be capped at the maximum settlement amount (expressed as a percentage of the principal amount), or 120.258% of the principal amount of your notes, as shown in the hypothetical cash settlement amount column of the table above. As a result, if you purchased your notes at the principal amount on the settlement date and held them to maturity, you would not benefit from any increase in the final underlier level over 114.47% of the initial underlier level.

The following chart also illustrates the hypothetical cash settlement amounts (expressed as a percentage of the principal amount of your notes) that we would pay on your notes on the stated maturity date, if the final underlier level (expressed as a percentage of the initial underlier level) were any of the hypothetical levels shown on the horizontal axis. The chart shows that any hypothetical final underlier level (expressed as a percentage of the initial underlier level) of less than the buffer level would result in a hypothetical cash settlement amount of less than 100.00% of the principal amount of your notes (the section below the 100.00% marker on the vertical axis) and, accordingly, in a loss of principal to the holder of the notes. On the other hand, any hypothetical final underlier level that is greater than the initial underlier level (the section right of the 100.00% marker on the horizontal axis) would result in a hypothetical cash settlement amount that is greater than 100.00% of the principal amount of your notes on a leveraged basis (the section above the 100.00% marker on the vertical axis), subject to the maximum settlement amount.

n The Note Performance n The Underlier Performance

No one can predict what the final underlier level will be. The actual amount that a holder of the notes will receive at maturity and the actual return on your investment in the notes, if any, will depend on the initial underlier level, the stated maturity date, the cap level and the maximum settlement amount that will be set on the trade date and the actual final underlier level determined by the calculation agent as described below. In addition, the actual return on your notes will further depend on the original issue price. Moreover, the assumptions on which the hypothetical table and chart are based may turn out to be inaccurate. Consequently, the return on your investment in the notes, if any, and the actual cash settlement amount to be paid in respect of the notes at maturity may be very different from the information reflected in the table and chart above.

ADDITIONAL RISK FACTORS SPECIFIC TO YOUR NOTES

An investment in your notes is subject to the risks described below, as well as the risks described under "Risk Factors" beginning on page S-1 of the accompanying prospectus supplement and page 1 of the accompanying prospectus. You should carefully review these risks as well as the terms of the notes described herein and in the accompanying prospectus, dated January 8, 2016, as supplemented by the accompanying prospectus supplement, dated January 8, 2016, and the accompanying product prospectus supplement PB-1, dated January 14, 2016, of Royal Bank of Canada. Your notes are a riskier investment than ordinary debt securities. Also, your notes are not equivalent to investing directly in the underlier stocks, i.e., the stocks included in the underlier. You should carefully consider whether the offered notes are suited to your particular circumstances.

You May Lose Your Entire Investment in the Notes

The principal amount of your investment is not protected and you may lose a significant amount, or even all of your investment in the notes. The cash settlement amount, if any, will depend on the performance of the underlier and the change in the level of the underlier from the trade date to the determination date, and you may receive significantly less than the principal amount of the notes. Subject to our credit risk, you will receive at least the principal amount of the notes at maturity only if the final underlier level is greater than or equal to the buffer level. If the final underlier level is less than the buffer level, then you will lose, for each $1,000 in principal amount of the notes, an amount equal to the product of (i) the buffer rate times (ii) the sum of underlier return plus the buffer amount (iii) times $1,000. You could lose some or all of the principal amount. Thus, depending on the final underlier level, you could lose a substantial portion, and perhaps all, of your investment in the notes, which would include any premium to the principal amount you may have paid when you purchased the notes.

In addition, if the notes are not held until maturity, assuming no changes in market conditions or to our creditworthiness and other relevant factors, the price you may receive for the notes may be significantly less than the price that you paid for them.

Our Initial Estimated Value of the Notes Will Be Less than the Original Issue Price

Our initial estimated value that is set forth on the cover page of this document, and that will be set forth in the final pricing supplement for the notes, will be less than the original issue price of the notes, and does not represent a minimum price at which we, RBCCM or any of our other affiliates would be willing to purchase the notes in any secondary market (if any exists) at any time. This is due to, among other things, the fact that the original issue price of the notes reflects the borrowing rate we pay to issue securities of this kind (an internal funding rate that is lower than the rate at which we borrow funds by issuing conventional fixed rate debt), and the inclusion in the original issue price of the costs relating to our hedging of the notes.

The Price, if any, at Which You May Be Able to Sell Your Notes Prior to Maturity May Be Less than the Original Issue Price and Our Initial Estimated Value

Assuming no change in market conditions or any other relevant factors, the price, if any, at which you may be able to sell your notes prior to maturity may be less than the original issue price and our initial estimated value. This is because any such sale price would not be expected to include our estimated profit and the costs relating to our hedging of the notes. In addition, any price at which you may sell the notes is likely to reflect customary bid-ask spreads for similar trades, and the cost of unwinding any related hedge transactions. In addition, the value of the notes determined for any secondary market price is expected to be based in part on the yield that is reflected in the interest rate on our conventional debt securities of similar maturity that are traded in the secondary market, rather than the internal funding rate that we used to price the notes and determine the initial estimated value. As a result, the secondary market price of the notes will be less than if the internal funding rate was used. These factors, together with various credit, market and economic factors over the term of the notes, and, potentially, changes in the level of the underlier, are expected to reduce the price at which you may be able to sell the notes in any secondary market and will affect the value of the notes in complex and unpredictable ways.

As set forth below in the section "Supplemental Plan of Distribution (Conflicts of Interest)," for a limited period of time after the original issue date, your broker may repurchase the notes at a price that is greater than the estimated value of the notes at that time. However, assuming no changes in any other relevant factors, the price you may receive if you sell your notes is expected to decline gradually during that period.

The notes are not designed to be short-term trading instruments. Accordingly, you should be able and willing to hold your notes to maturity.

The Initial Estimated Value of the Notes Is an Estimate Only, Calculated as of the Time the Terms of the Notes Are Set

Our initial estimated value of the notes is based on the value of our obligation to make the payments on the notes, together with the mid-market value of the derivative embedded in the terms of the notes. See "Structuring the Notes" below. Our estimate is based on a variety of assumptions, including our internal funding rate (which represents a discount from our credit spreads), expectations as to dividends on the underlier stocks, interest rates and volatility, and the expected term of the notes. These assumptions are based on certain forecasts about future events, which may prove to be incorrect. Other entities may value the notes or similar securities at a price that is significantly different than we do.

The value of the notes at any time after the trade date will vary based on many factors, including changes in market conditions, and cannot be predicted with accuracy. As a result, the actual value you would receive if you sold the notes in any secondary market, if any, should be expected to differ materially from our initial estimated value of your notes.

Your Notes Will Not Bear Interest

You will not receive any interest payments on the notes. Even if the amount payable on the notes at maturity exceeds the principal amount of the notes, the overall return you earn on the notes may be less than you would otherwise have earned by investing in a non-indexed debt security of comparable maturity that bears interest at a prevailing market rate. Your investment may not reflect the full opportunity cost to you when you take into account factors that affect the time value of money.

The Potential for the Value of Your Notes to Increase Will Be Limited

Your ability to participate in any change in the level of the underlier over the term of your notes will be limited because of the cap level. The cap level will limit the amount in cash you may receive for each of your notes at maturity, no matter how much the level of the underlier may rise beyond the cap level over the term of your notes. Accordingly, the amount payable for each of your notes may be significantly less than your return had you invested directly in the underlier stocks.

Payment of the Amount Payable on Your Notes Is Subject to Our Credit Risk, and Market Perceptions About Our Creditworthiness May Adversely Affect the Market Value of Your Notes

The notes are our unsecured debt obligations. Investors are subject to our credit risk, and market perceptions about our creditworthiness may adversely affect the market value of the notes. Any decrease in the market's view on or confidence in our creditworthiness is likely to adversely affect the market value of the notes.

The Amount Payable on Your Notes Is Not Linked to the Level of the Underlier at Any Time Other than the Determination Date

The amount payable on your notes will be based on the final underlier level. Therefore, for example, if the closing level of the underlier decreased precipitously on the determination date, the amount payable at maturity may be significantly less than it would otherwise have been had the amount payable been linked to the closing level of the underlier prior to that decrease. Although the actual level of the underlier at maturity or at other times during the term of the notes may be higher than the final underlier level, you will not benefit from the closing level of the underlier at any time other than the determination date.

The Notes May Not Have an Active Trading Market

The notes will not be listed on any securities exchange. The dealer intends to offer to purchase the notes in the secondary market, but is not required to do so. The dealer or any of its affiliates may stop any market-making activities at any time. Even if there is a secondary market, it may not provide enough liquidity to allow you to easily trade or sell the notes. Because other dealers are not likely to make a secondary market for the notes, the price at which you may be able to trade the notes is likely to depend on the price, if any, at which the dealer is willing to buy the notes. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your notes in any secondary market could be substantial.

If you sell your notes before maturity, you may have to do so at a substantial discount from the price that you paid for them, and as a result, you may suffer substantial losses.

The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors

The following factors, among others, many of which are beyond our control, may influence the market value of your notes:

- the level of the underlier;
- the volatility—i.e., the frequency and magnitude of changes—of the level of the underlier;
- the dividend rates of the underlier stocks;
- economic, financial, regulatory, political, military and other events that affect stock markets generally and the underlier stocks;
- interest and yield rates in the market;
- the time remaining until the notes mature; and
- our creditworthiness, whether actual or perceived, and including actual or anticipated upgrades or downgrades in our credit ratings or changes in other credit measures.

These factors may influence the market value of your notes if you sell your notes before maturity, including the price you may receive for your notes in any market making transaction. If you sell your notes prior to maturity, you may receive less than the principal amount of your notes.

If the Level or Price of the Underlier or the Underlier Stocks Changes, the Market Value of the Notes May Not Change in the Same Manner

The notes may trade quite differently from the performance of the underlier or the underlier stocks. Changes in the level or price, as applicable, of the underlier or the underlier stocks may not result in a comparable change in the market value of the notes. Some of the reasons for this disparity are discussed under "— The Market Value of Your Notes May Be Influenced by Many Unpredictable Factors" above.

The Return on the Notes Will Not Reflect Any Dividends Paid on the Underlier Stocks

The underlier sponsor calculates the levels of the underlier by reference to the prices of the underlier stocks without taking account of the value of dividends paid on those underlier stocks. Therefore, the return on the notes will not reflect the return you would realize if you actually owned the underlier stocks and received the dividends paid on those underlier stocks.

You Have No Shareholder Rights or Rights to Receive Any Underlier Stock

Investing in your notes will not make you a holder of any of the underlier stocks. Neither you nor any other holder or owner of your notes will have any voting rights, any right to receive dividends or other distributions, any rights to make a claim against the underlier stock issuers or any other rights with respect to the underlier stocks. Your notes will be paid in cash to the extent any amount is payable at maturity, and you will have no right to receive delivery of any of the underlier stocks.

We Will Not Hold Any of the Underlier Stocks for Your Benefit, if We Hold Them at All

The indenture and the terms governing your notes do not contain any restriction on our ability or the ability of any of our affiliates to sell, pledge or otherwise convey all or any portion of the underlier stocks that we or they may acquire. Neither we nor our affiliates will pledge or otherwise hold any assets for your benefit, including any of these securities. Consequently, in the event of our bankruptcy, insolvency or liquidation, any of those securities that we own will be subject to the claims of our creditors generally and will not be available for your benefit specifically.

Our Hedging Activities and/or Those of Our Distributors May Negatively Impact Investors in the Notes and Cause Our Interests and Those of Our Clients and Counterparties to Be Contrary to Those of Investors in the Notes

The dealer or one or more of our other affiliates and/or distributors expects to hedge its obligations under the hedging transaction that it may enter into with us by purchasing futures and/or other instruments linked to the underlier or the underlier stocks. The dealer or one or more of our other affiliates and/or distributors also expects to adjust the hedge by, among other things, purchasing or selling any of the foregoing, and perhaps other instruments linked to the underlier or one or more of the underlier stocks, at any time and from time to time, and to unwind the hedge by selling any of the foregoing on or before the determination date.

We, the dealer, or one or more of our other affiliates and/or distributors may also enter into, adjust and unwind hedging transactions relating to other basket- or index-linked notes whose returns are linked to changes in the level or price of the underlier or the underlier stocks. Any of these hedging activities may adversely affect the level of the underlier —directly or indirectly by affecting the price of the underlier stocks—and therefore the market value of the notes and the amount you will receive, if any, on the notes. In addition, you should expect that these transactions will cause us, the dealer or our other affiliates and/or distributors, or our clients or counterparties, to have economic interests and incentives that do not align with, and that may be directly contrary to, those of an investor in the notes. We, the dealer and our other affiliates and/or distributors will have no obligation to take, refrain from taking or cease taking any action with respect to these transactions based on the potential effect on an investor in the notes, and may receive substantial returns with respect to these hedging activities while the value of the notes may decline. Additionally, if the distributor from which you purchase notes is to conduct hedging activities for us in connection with the notes, that distributor may profit in connection with such hedging activities and such profit, if any, will be in addition to the compensation that the distributor receives for the sale of the notes to you. You should be aware that the potential to earn fees in connection with hedging activities may create a further incentive for the distributor to sell the notes to you in addition to the compensation they would receive for the sale of the notes.

Market Activities by Us and by the Dealer for Our Own Account or for Our Clients Could Negatively Impact Investors in the Notes

We, the dealer and our other affiliates provide a wide range of financial services to a substantial and diversified client base. As such, we each may act as an investor, investment banker, research provider, investment manager, investment advisor, market maker, trader, prime broker or lender. In those and other capacities, we, the dealer and/or our other affiliates purchase, sell or hold a broad array of investments, actively trade securities (including the notes or other securities that we have issued), the underlier stocks, derivatives, loans, credit default swaps, indices, baskets and other financial instruments and products for our own accounts or for the accounts of our customers, and we will have other direct or indirect interests, in those securities and in other markets that may be not be consistent with your interests and may adversely affect the level of the underlier and/or the value of the notes. Any of these financial market activities may, individually or in the aggregate, have an adverse effect on the level of the underlier and the market value of your notes, and you should expect that our interests and those of the dealer and/or our other affiliates, or our clients or counterparties, will at times be adverse to those of investors in the notes.

In addition to entering into these transactions itself, we, the dealer and our other affiliates may structure these transactions for our clients or counterparties, or otherwise advise or assist clients or counterparties in entering into these transactions. These activities may be undertaken to achieve a variety of objectives, including: permitting other

purchasers of the notes or other securities to hedge their investment in whole or in part; facilitating transactions for other clients or counterparties that may have business objectives or investment strategies that are inconsistent with or contrary to those of investors in the notes; hedging the exposure of us, the dealer or our other affiliates in connection with the notes, through their market-making activities, as a swap counterparty or otherwise; enabling us, the dealer or our other affiliates to comply with internal risk limits or otherwise manage firmwide, business unit or product risk; and/or enabling us, the dealer or our other affiliates to take directional views as to relevant markets on behalf of itself or our clients or counterparties that are inconsistent with or contrary to the views and objectives of investors in the notes.

We, the dealer and our other affiliates regularly offer a wide array of securities, financial instruments and other products into the marketplace, including existing or new products that are similar to the notes or other securities that we may issue, the underlier stocks or other securities or instruments similar to or linked to the foregoing. Investors in the notes should expect that we, the dealer and our other affiliates will offer securities, financial instruments, and other products that may compete with the notes for liquidity or otherwise.

We, the Dealer and Our Other Affiliates Regularly Provide Services to, or Otherwise Have Business Relationships with, a Broad Client Base, Which Has Included and May Include Us and the Issuers of the Underlier Stocks

We, the dealer and our other affiliates regularly provide financial advisory, investment advisory and transactional services to a substantial and diversified client base. You should assume that we or they will, at present or in the future, provide such services or otherwise engage in transactions with, among others, us and the issuers of the underlier stocks, or transact in securities or instruments or with parties that are directly or indirectly related to these entities. These services could include making loans to or equity investments in those companies, providing financial advisory or other investment banking services, or issuing research reports. You should expect that we, the dealer and our other affiliates, in providing these services, engaging in such transactions, or acting for our own accounts, may take actions that have direct or indirect effects on the notes or other securities that we may issue, the underlier stocks or other securities or instruments similar to or linked to the foregoing, and that such actions could be adverse to the interests of investors in the notes. In addition, in connection with these activities, certain personnel within us, the dealer or our other affiliates may have access to confidential material non-public information about these parties that would not be disclosed to investors of the notes.

Past Underlier Performance Is No Guide to Future Performance

The actual performance of the underlier over the term of the notes may bear little relation to the historical levels of the underlier. Likewise, the amount payable at maturity may bear little relationship to the hypothetical return table or chart set forth elsewhere in this pricing supplement. We cannot predict the future performance of the underlier. Trading activities undertaken by market participants, including certain investors in the notes or their affiliates, including in short positions and derivative positions, may adversely affect the level of the underlier.

As the Calculation Agent, RBCCM Will Have the Authority to Make Determinations that Could Affect the Amount You Receive, if Any, at Maturity

As the calculation agent for the notes, RBCCM will have discretion in making various determinations that affect the notes, including determining the final underlier level, which will be used to determine the cash settlement amount at maturity, and determining whether to postpone the determination date because of a market disruption event or because that day is not a trading day. The calculation agent also has discretion in making certain adjustments relating to a discontinuation or modification of the underlier, as described under “General Terms of the Notes—Unavailability of the Level of the Underlier” beginning on page PS-6 of the accompanying product prospectus supplement PB-1. The exercise of this discretion by RBCCM, which is our wholly owned subsidiary, could adversely affect the value of the notes and may create a conflict of interest between you and RBCCM. For a description of market disruption events as well as the consequences of the market disruption events, see the section entitled “General Terms of the Notes—Market Disruption Events” beginning on page PS-7 of the accompanying product prospectus supplement PB-1. We may change the calculation agent at any time without notice, and RBCCM may resign as calculation agent at any time.

The Policies of the Underlier Sponsor and Changes that Affect the Underlier or the Underlier Stocks Could Affect the Amount Payable on the Notes, if Any, and Their Market Value

The policies of the underlier sponsor concerning the calculation of the levels of the underlier, additions, deletions or substitutions of the underlier stocks and the manner in which changes affecting such underlier stocks or their issuers, such as stock dividends, reorganizations or mergers, are reflected in the level of the underlier, could affect the levels of the underlier and, therefore, the amount payable on the notes, if any, at maturity and the market value of the notes prior to maturity. The amount payable on the notes, if any, and their market value could also be affected if the underlier sponsor changes these policies, for example, by changing the manner in which it calculates the level of the underlier, or if the underlier sponsor discontinues or suspends calculation or publication of the level of the underlier, in which case it may become difficult to determine the market value of the notes. If events such as these occur, the calculation agent will determine the amount payable, if any, at maturity as described herein.

The Calculation Agent Can Postpone the Determination of the Final Underlier Level if a Market Disruption Event Occurs or Is Continuing

The determination of the final underlier level may be postponed if the calculation agent determines that a market disruption event has occurred or is continuing on the determination date with respect to the underlier. If such a postponement occurs, the calculation agent will use the closing level of the underlier on the first subsequent trading day on which no market disruption event occurs or is continuing, subject to the limitations set forth in the accompanying product prospectus supplement PB-1. If a market disruption event occurs or is continuing on a

determination date, the stated maturity date for the notes could also be postponed.

If the determination of the level of the underlier for any determination date is postponed to the last possible day, but a market disruption event occurs or is continuing on that day, that day will nevertheless be the date on which the level of the underlier will be determined by the calculation agent. In such an event, the calculation agent will make a good faith estimate in its sole discretion of the level that would have prevailed in the absence of the market disruption event. See "General Terms of the Notes—Market Disruption Events" in the accompanying product prospectus supplement PB-1.

There Is No Affiliation Between Any Underlier Stock Issuers or the Underlier Sponsor and Us or the Dealer, and Neither We Nor the Dealer Is Responsible for Any Disclosure by Any of the Underlier Stock Issuers or the Underlier Sponsor

We are not affiliated with the issuers of the underlier stocks or with the underlier sponsor. As discussed herein, however, we, the dealer, and our other affiliates may currently, or from time to time in the future, engage in business with the issuers of the underlier stocks. Nevertheless, none of us, the dealer, or our respective affiliates assumes any responsibility for the accuracy or the completeness of any information about the underlier or any of the underlier stocks. You, as an investor in the notes, should make your own investigation into the underlier and the underlier stocks. See the section below entitled "The Underlier" for additional information about the underlier.

Neither the underlier sponsor nor any issuers of the underlier stocks are involved in this offering of the notes in any way, and none of them have any obligation of any sort with respect to the notes. Thus, neither the underlier sponsor nor any of the issuers of the underlier stocks have any obligation to take your interests into consideration for any reason, including in taking any corporate actions that might affect the value of the notes.

You Must Rely on Your Own Evaluation of the Merits of an Investment Linked to the Underlier

In the ordinary course of business, we, the dealer, our other affiliates and any additional dealers, including in acting as a research provider, investment advisor, market maker, principal investor or distributor, may express research or investment views on expected movements in the underlier or the underlier stocks, and may do so in the future. These views or reports may be communicated to our clients, clients of our affiliates and clients of any additional dealers, and may be inconsistent with, or adverse to, the objectives of investors in the notes. However, these views are subject to change from time to time. Moreover, other professionals who transact business in markets relating to the underlier or the underlier stocks may at any time have significantly different views from those of these entities. For these reasons, you are encouraged to derive information concerning the underlier or the underlier stocks from multiple sources, and you should not rely solely on views expressed by us, the dealer, our other affiliates, or any additional dealers.

We May Sell an Additional Aggregate Amount of the Notes at a Different Original Issue Price

At our sole option, we may decide to sell an additional aggregate amount of the notes subsequent to the trade date. The price of the notes in the subsequent sale may differ substantially (higher or lower) from the principal amount.

If the Original Issue Price for Your Notes Represents a Premium to the Principal Amount, the Return on Your Notes Will Be Lower Than the Return on Notes for Which the Original Issue Price Is Equal to the Principal Amount or Represents a Discount to the Principal Amount

The cash settlement amount will not be adjusted based on the original issue price. If the original issue price for your notes differs from the principal amount, the return on your notes held to maturity will differ from, and may be substantially less than, the return on notes for which the original issue price is equal to the principal amount. If the original issue price for your notes represents a premium to the principal amount and you hold them to maturity, the return on your notes will be lower than the return on notes for which the original issue price is equal to the principal amount or represents a discount to the principal amount.

In addition, the impact of the buffer level and the cap level on the return on your investment will depend upon the price you pay for your notes relative to the principal amount. For example, if you purchase your notes at a premium to the principal amount, the cap level will only permit a lower percentage increase in your investment in the notes than would have been the case for notes purchased at the principal amount or a discount to the principal amount. Similarly, the buffer level, while still providing some protection for the return on the notes, will allow a greater percentage decrease in your investment in the notes than would have been the case for notes purchased at the principal amount or a discount to the principal amount.

Significant Aspects of the Income Tax Treatment of an Investment in the Notes Are Uncertain

The tax treatment of an investment in the notes is uncertain. We do not plan to request a ruling from the Internal Revenue Service or the Canada Revenue Agency regarding the tax treatment of an investment in the notes, and the Internal Revenue Service, the Canada Revenue Agency or a court may not agree with the tax treatment described in this pricing supplement.

The Internal Revenue Service has issued a notice indicating that it and the U.S. Treasury Department are actively considering whether, among other issues, a holder should be required to accrue interest over the term of an instrument such as the notes even though that holder will not receive any payments with respect to the notes until maturity or earlier sale or exchange and whether all or part of the gain a holder may recognize upon sale, exchange or maturity of an instrument such as the notes could be treated as ordinary income. The outcome of this process is uncertain and could apply on a retroactive basis.

Please read carefully the section entitled “Supplemental Discussion of U.S. Federal Income Tax Consequences” in the accompanying product prospectus supplement PB-1, the section entitled “Certain Income Tax Consequences” in the accompanying prospectus supplement and the section entitled “Tax Consequences” in the accompanying prospectus. You should consult your tax advisor about your own tax situation.

Non-U.S. Investors May Be Subject to Certain Additional Risks

The notes will be denominated in U.S. dollars. If you are a non-U.S. investor who purchases the notes with a currency other than U.S. dollars, changes in rates of exchange may have an adverse effect on the value, price or returns of your

investment.

This pricing supplement contains a general description of certain U.S. tax considerations relating to the notes. If you are a non-U.S. investor, you should consult your tax advisors as to the consequences, under the tax laws of the country where you are resident for tax purposes, of acquiring, holding and disposing of the notes and receiving the payments that might be due under the notes.

For a discussion of certain Canadian federal income tax consequences of investing in the notes, please see the section entitled “Tax Consequences — Canadian Taxation” in the accompanying prospectus. If you are not a Non-resident Holder (as that term is defined in “Tax Consequences — Canadian Taxation” in the accompanying prospectus) or if you acquire the notes in the secondary market, you should consult your tax advisor as to the consequences of acquiring, holding and disposing of the notes and receiving the payments that might be due under the notes.

Certain Considerations for Insurance Companies and Employee Benefit Plans

Any insurance company or fiduciary of a pension plan or other employee benefit plan that is subject to the prohibited transaction rules of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), or the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"), including an IRA or a Keogh plan (or a governmental plan to which similar prohibitions apply), and that is considering purchasing the notes with the assets of the insurance company or the assets of such a plan, should consult with its counsel regarding whether the purchase or holding of the notes could become a "prohibited transaction" under ERISA, the Internal Revenue Code or any substantially similar prohibition in light of the representations a purchaser or holder in any of the above categories is deemed to make by purchasing and holding the notes. This is discussed in more detail under "Employee Retirement Income Security Act" in the accompanying product prospectus supplement PB-1.

THE UNDERLIER

General

The underlier is the S&P 500® Index (Bloomberg ticker "SPX"). All information contained in this pricing supplement regarding the underlier including, without limitation, its make-up, method of calculation and changes in its components and its historical closing values, is derived from publicly available information prepared by the underlier sponsor. Such information reflects the policies of, and is subject to change by, the underlier sponsor. The underlier sponsor owns the copyright and all rights to the underlier. The underlier sponsor is under no obligation to continue to publish, and may discontinue publication of, the underlier. The consequences of the underlier sponsor discontinuing or modifying the underlier are described in the section entitled "Description of the Notes—Unavailability of the Level of the Underlier" beginning on page PS-6 of the accompanying product prospectus supplement PB-1.

The underlier is calculated and maintained by the underlier sponsor. Neither we nor RBCCM has participated in the preparation of such documents or made any due diligence inquiry with respect to the underlier or underlier sponsor in connection with the offering of the notes. In connection with the offering of the notes, neither we nor RBCCM makes any representation that such publicly available information regarding the underlier or underlier sponsor is accurate or complete. Furthermore, we cannot give any assurance that all events occurring prior to the offering of the notes (including events that would affect the accuracy or completeness of the publicly available information described in this pricing supplement) that would affect the level of the underlier or have been publicly disclosed. Subsequent disclosure of any such events could affect the value received at maturity and therefore the market value of the notes.

We, the dealer or our respective affiliates may presently or from time to time engage in business with one or more of the issuers of the underlier stocks of the underlier without regard to your interests, including extending loans to or entering into loans with, or making equity investments in, one or more of such issuers or providing advisory services to one or more of such issuers, such as merger and acquisition advisory services. In the course of business, we, the dealer or our respective affiliates may acquire non-public information about one or more of such issuers and none of us, the dealer or our respective affiliates undertake to disclose any such information to you. In addition, we, the dealer or our respective affiliates from time to time have published and in the future may publish research reports with respect to such issuers. These research reports may or may not recommend that investors buy or hold the securities of such issuers. As a prospective purchaser of the notes, you should undertake an independent investigation of the underlier or of the issuers of the underlier stocks to the extent required, in your judgment, to allow you to make an informed decision with respect to an investment in the notes.

We are not incorporating by reference the website of the underlier sponsor or any material it includes into this pricing supplement. In this pricing supplement, unless the context requires otherwise, references to the underlier will include any successor underlier to the underlier and references to the underlier sponsor will include any successor thereto.

Description of the Underlier

The S&P 500® Index

The underlier includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The underlier is calculated, maintained and published by S&P Dow Jones Indices LLC. Additional information is available on the following website: http://www.standardandpoors.com. Information on that website is not included or incorporated by reference in this pricing supplement.

The underlier is intended to provide an indication of the pattern of common stock price movement. The calculation of the level of the underlier is based on the relative value of the aggregate market value (as defined below) of the common stocks of 500 companies as of a particular time compared to the aggregate average market value of the common stocks of 500 similar companies during the base period of the years 1941 through 1943. The "market value" of any underlier stock is the product of the market price per share times the number of the then outstanding shares of such underlier stock. The 500 companies are not the 500 largest companies listed on the New York Stock Exchange and not all 500 companies are listed on such exchange.

S&P Dow Jones Indices LLC chooses companies for inclusion in the underlier with the aim of achieving a distribution by broad industry groupings that approximates the distribution of these groupings in the common stock population of its Stock Guide Database of over 10,000 companies, which S&P Dow Jones Indices LLC uses as an assumed model for the composition of the total market. Relevant criteria employed by S&P Dow Jones Indices LLC include the viability of the particular company, the extent to which that company represents the industry group to which it is assigned, the extent to which the market price of that company's common stock generally is responsive to changes in

the affairs of the respective industry, and the market value and trading activity of the common stock of that company. S&P Dow Jones Indices LLC from time to time, in its sole discretion, may add companies to, or delete companies from, the underlier to achieve the objectives stated above.

Effective with the September 2015 rebalance, consolidated share class lines are no longer included in the S&P 500® Index. Each share class line is subject to public float and liquidity criteria individually, but a company's total market capitalization is used to evaluate each share class line. This may result in one listed share class line of a company being included in the S&P 500® Index while a second listed share class line of the same company is excluded.

In addition, a company must have a primary listing of its common stock on the NYSE, NYSE Arca, NYSE MKT, NASDAQ Global Select Market, NASDAQ Select Market, NASDAQ Capital Market, Bats BZX, Bats BYX, Bats EDGA, or Bats EDGX.

Calculation of the S&P 500® Index

The underlier is calculated using a base-weighted aggregate methodology: the level of the underlier reflects the total market value of all 500 underlier stocks relative to the underlier's base period of 1941-43, which we refer to as the base period.

An indexed number is used to represent the results of this calculation in order to make the value easier to work with and track over time.

The actual total market value of the underlier stocks during the base period has been set equal to an indexed value of 10. This is often indicated by the notation 1941-43=10. In practice, the daily calculation of the underlier is computed by dividing the total market value of the underlier stocks by a number called the "S&P 500 index divisor." By itself, the S&P 500 index divisor is an arbitrary number. However, in the context of the calculation of the underlier, it is the only link to the original base period level of the underlier. The S&P 500 index divisor keeps the underlier comparable over time and is the manipulation point for all adjustments to the underlier, which we refer to as "S&P 500 index maintenance."

S&P 500 index maintenance includes monitoring and completing the adjustments for company additions and deletions, share changes, stock splits, stock dividends, and stock price adjustments due to company restructurings or spin-offs. Effective March 10, 2017, company additions to the underlier should have an unadjusted company market capitalization of $6.1 billion or more (an increase from the previous requirement of an unadjusted company market capitalization of $5.3 billion or more).

To prevent the level of the underlier from changing due to corporate actions, all corporate actions which affect the total market value of the underlier require an index divisor adjustment. By adjusting the index divisor for the change in total market value, the level of the underlier remains constant. This helps maintain the level of the underlier as an accurate barometer of stock market performance and ensures that the movement of the underlier does not reflect the corporate actions of individual companies in the underlier. All index divisor adjustments are made after the close of trading and after the calculation of the closing level of the underlier. Some corporate actions, such as stock splits and stock dividends, require simple changes in the common shares outstanding and the stock prices of the companies in the underlier and do not require index divisor adjustments.

The table below summarizes the types of index maintenance adjustments and indicates whether or not an index divisor adjustment is required:

Type of Corporate Action	Adjustment Factor	Divisor Adjustment Required
Stock Split (i.e., 2-for-1)	Shares outstanding multiplied by 2; Stock price divided by 2	No
Share Issuance (i.e., change ≥ 5%)	Shares outstanding plus newly issued shares	Yes
Share Repurchase (i.e., change ≥ 5%)	Shares outstanding minus repurchased shares	Yes
Special Cash Dividends	Share price minus special dividend	Yes
Company Change	Add new company market value minus old company market value	Yes
Rights Offering	Price of parent company minus $\frac{\text{price of rights offering}}{\text{rights ratio}}$	Yes
Spin-Off	Price of parent company minus $\frac{\text{price of spin-off co.}}{\text{share exchange ratio}}$	Yes

Stock splits and stock dividends do not affect the index divisor of the underlier, because following a split or dividend both the stock price and number of shares outstanding are adjusted by S&P Dow Jones Indices LLC so that there is no change in the market value of the underlier stocks. All stock split and dividend adjustments are made after the close of trading on the day before the ex-date.

Each of the corporate events exemplified in the table requiring an adjustment to the index divisor has the effect of altering the market value of the underlier stocks and consequently of altering the aggregate market value of the underlier stocks, which we refer to as the post-event aggregate market value. In order that the level of the underlier, which we refer to as the pre-event underlier value, not be affected by the altered market value (whether increase or decrease) of the affected underlier stocks, a new index divisor, which we refer to as the new index divisor, is derived as follows:

$$\frac{\text{post-event aggregate market value}}{\text{new index divisor}} = \text{pre-event underlier value}$$

$$\text{new index divisor} = \frac{\text{post-event market value}}{\text{pre-event underlier value}}$$

A large part of the index maintenance process involves tracking the changes in the number of shares outstanding of each of the underlier companies. Four times a year, on a Friday close to the end of each calendar quarter, the share totals of companies in the underlier are updated as required by any changes in the number of shares outstanding. After the totals are updated, the index divisor is adjusted to compensate for the net change in the total market value of the underlier. In addition, any changes over 5% in the current common shares outstanding for the underlier companies are carefully reviewed on a weekly basis, and when appropriate, an immediate adjustment is made to the index divisor.

The underlier and other U.S. indices moved to a float adjustment methodology in 2005 so that the indices will reflect only those shares that are generally available to investors in the market rather than all of a company's outstanding shares. Under float adjustment, the share counts used in calculating the underlier reflect only those shares that are available to investors, not all of a company's outstanding shares. Float adjustment excludes shares that are closely held by control groups, other publicly traded companies or government agencies.

In September 2012, all shareholdings representing more than 5% of a stock's outstanding shares, other than holdings by "block owners," were removed from the float for purposes of calculating the underlier. Generally, these "control holders" will include officers and directors, private equity, venture capital and special equity firms, other publicly traded companies that hold shares for control, strategic partners, holders of restricted shares, ESOPs, employee and family trusts, foundations associated with the company, holders of unlisted share classes of stock, government entities at all levels (other than government retirement/pension funds) and any individual person who controls a 5% or greater stake in a company as reported in regulatory filings. However, holdings by block owners, such as depositary banks, pension funds, mutual funds and ETF providers, 401(k) plans of the company, government retirement/pension funds, investment funds of insurance companies, asset managers and investment funds, independent foundations and savings and investment plans, will ordinarily be considered part of the float.

License Agreement

S&P® is a registered trademark of Standard & Poor's Financial Services LLC ("S&P") and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). The foregoing trademarks have been licensed for use by S&P Dow Jones Indices LLC. "S&P 500®" and "S&P®" are trademarks of S&P. These trademarks have been sublicensed for certain purposes by Royal Bank of Canada. The underlier is a product of S&P Dow Jones Indices LLC and/or its affiliates and has been licensed for use by Royal Bank of Canada.

The license agreement provides that the following language must be set forth in this pricing supplement:

The notes are not sponsored, endorsed, sold or promoted by S&P Dow Jones Indices LLC, Dow Jones, S&P or any of their respective affiliates (collectively, "S&P Dow Jones Indices"). S&P Dow Jones Indices does not make any representation or warranty, express or implied, to the holders of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes particularly or the ability of the underlier to track general market performance. S&P Dow Jones Indices' only relationship to Royal Bank of Canada with respect to the underlier is the licensing of the underlier and certain trademarks, service marks and/or trade names of S&P Dow Jones Indices. The underlier is determined, composed and calculated by S&P Dow Jones Indices without regard to Royal Bank of Canada or the notes. S&P Dow Jones Indices have no obligation to take the needs of Royal Bank of Canada or the holders of the notes into consideration in determining, composing or calculating the underlier. S&P Dow Jones Indices are not responsible for and have not participated in the determination of the prices and amount of the notes, or the timing of the issuance or sale of the notes, or in the determination or calculation of the equation by which the notes are to be converted into cash. S&P Dow Jones Indices shall have no obligation or liability in connection with the administration, marketing or trading of the notes. There is no assurance that investment products based on the underlier will accurately track underlier performance or provide positive investment returns. S&P Dow Jones Indices LLC and its subsidiaries are not investment advisors. Inclusion of a security or futures contract within an underlier is not a recommendation by S&P Dow Jones Indices to buy, sell, or hold such security or futures contract, nor is it considered to be investment advice. Notwithstanding the foregoing, CME Group Inc. and its affiliates may

independently issue and/or sponsor financial products unrelated to the notes currently being issued by Royal Bank of Canada, but which may be similar to and competitive with the notes. In addition, CME Group Inc. and its affiliates may trade financial products which are linked to the performance of the underlier. It is possible that this trading activity will affect the value of the notes.

S&P DOW JONES INDICES DOES NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE UNDERLIER OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. S&P DOW JONES INDICES SHALL NOT BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. S&P DOW JONES INDICES MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY ROYAL BANK OF CANADA, HOLDERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE

OF THE UNDERLIER OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL S&P DOW JONES INDICES BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE. THERE ARE NO THIRD PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN S&P DOW JONES INDICES AND ROYAL BANK OF CANADA, OTHER THAN THE LICENSORS OF S&P DOW JONES INDICES.

Historical Performance of the Underlier

The closing levels of the underlier have fluctuated in the past and may experience significant fluctuations in the future. Any historical upward or downward trend in the closing levels of the underlier during any period shown below is not an indication that the underlier is more or less likely to increase or decrease at any time during the term of the notes. The historical levels of the underlier are provided for informational purposes only. You should not take the historical levels of the underlier as an indication of its future performance. We cannot give you any assurance that the future performance of the underlier or the underlier stocks will result in your receiving an amount greater than the original issue price at maturity. Neither we nor any of our affiliates makes any representation to you as to the performance of the underlier. Moreover, in light of current market conditions, the trends reflected in the historical performance of the underlier may be less likely to be indicative of the performance of the underlier over the term of the notes than would otherwise have been the case. The actual performance of the underlier over the term of the notes, as well as the cash settlement amount, may bear little relation to the historical levels shown below.

The graph below shows the daily historical closing levels of the underlier from April 7, 2007 through April 7, 2017. We obtained the closing levels of the underlier listed in the graph below from Bloomberg Financial Services, without independent verification.

Historical Performance of the S&P 500® Index

SUPPLEMENTAL DISCUSSION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

The following disclosure supplements, and to the extent inconsistent supersedes, the discussion in the product prospectus supplement dated January 14, 2016 under "Supplemental Discussion of U.S. Federal Income Tax Consequences."

A "dividend equivalent" payment is treated as a dividend from sources within the United States and such payments generally would be subject to a 30% U.S. withholding tax if paid to a non-U.S. holder. Under U.S. Treasury Department regulations, payments (including deemed payments) with respect to equity-linked instruments ("ELIs") that are "specified ELIs" may be treated as dividend equivalents if such specified ELIs reference an interest in an "underlying security," which is generally any interest in an entity taxable as a corporation for U.S. federal income tax purposes if a payment with respect to such interest could give rise to a U.S. source dividend. However, U.S. Treasury Department regulations provide that withholding on dividend equivalent payments will not apply to specified ELIs that are not delta-one instruments and that are issued before January 1, 2018. Based on our determination that the notes are not delta-one instruments, non-U.S. holders should not be subject to withholding on dividend equivalent payments, if any, under the notes. However, it is possible that the notes could be treated as deemed reissued for U.S. federal income tax purposes upon the occurrence of certain events affecting the underlier or the notes (for example, upon an underlier rebalancing), and following such occurrence the notes could be treated as subject to withholding on dividend equivalent payments. Non-U.S. holders that enter, or have entered, into other transactions in respect of the underlier or the notes should consult their tax advisors as to the application of the dividend equivalent withholding tax in the context of the notes and their other transactions. If any payments are treated as dividend equivalents subject to withholding, we (or the applicable paying agent) would be entitled to withhold taxes without being required to pay any additional amounts with respect to amounts so withheld.

SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We will agree to sell to RBCCM, and RBCCM will agree to purchase from us, the principal amount of the notes specified, at the price specified, on the cover page of this pricing supplement. RBCCM has informed us that, as part of its distribution of the notes, it will reoffer them at a purchase price equal to [100.00]% of the principal amount to one or more other dealers who will sell them to their customers. In the future, RBCCM or one of its affiliates, may repurchase and resell the notes in market-making transactions, with resales being made at prices related to prevailing market prices at the time of resale or at negotiated prices. For more information about the plan of distribution, the distribution agreement and possible market-making activities, see "Supplemental Plan of Distribution" in the accompanying prospectus supplement. For additional information as to the relationship between us and RBCCM, please see the section "Plan of Distribution Conflicts of Interest" in the accompanying prospectus.

If the notes priced on the date of this pricing supplement, RBCCM, acting as agent for Royal Bank of Canada, would not receive an underwriting discount in connection with the sale of the notes.

We expect to deliver the notes against payment therefor in New York, New York on _____, 2017, which is expected to be the fifth scheduled business day following the trade date. Under Rule 15c6-1 of the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on any date prior to three business days before delivery will be required, by virtue of the fact that the notes are initially expected to settle in five business days (T + 5), to specify alternative settlement arrangements to prevent a failed settlement.

RBCCM may use this pricing supplement in the initial sale of the notes. In addition, RBCCM or any other affiliate of Royal Bank of Canada may use this pricing supplement in a market-making transaction in a note after its initial sale. Unless RBCCM or its agent informs the purchaser otherwise in the confirmation of sale, this pricing supplement is being used in a market-making transaction.

RBCCM or another of our affiliates may make a market in the notes after their issuance date; however, it is not obligated to do so. The price that it makes available from time to time after the issue date at which it would be willing to repurchase the notes will generally reflect its estimate of their value. That estimated value will be based upon a variety of factors, including then prevailing market conditions, our creditworthiness and transaction costs. However, for a period of approximately three months after the issue date, the price at which RBCCM may repurchase the notes is expected to be higher than their estimated value at that time. This is because, at the beginning of this period, that price will not include certain costs that were included in the original issue price, particularly our hedging costs and profits. As the period continues, these costs are expected to be gradually included in the price that RBCCM would be

willing to pay, and the difference between that price and RBCCM's estimate of the value of the notes will decrease over time until the end of this period. After this period, if RBCCM continues to make a market in the notes, the prices that it would pay for them are expected to reflect its estimated value, as well as customary bid-ask spreads for similar trades. In addition, the value of the notes shown on your account statement may not be identical to the price at which RBCCM would be willing to purchase the notes at that time, and could be lower than RBCCM's price.

STRUCTURING THE NOTES

The notes are our debt securities. As is the case for all of our debt securities, including our structured notes, the economic terms of the notes reflect our actual or perceived creditworthiness. In addition, because structured notes result in increased operational, funding and liability management costs to us, we typically borrow the funds under these notes at a rate that is lower than the rate that we might pay for a conventional fixed or floating rate debt security of comparable maturity. This relatively lower implied borrowing rate, which is reflected in the economic terms of the notes, along with the fees and expenses associated with structured notes, typically reduces the initial estimated value of the notes at the time their terms are set.

In order to satisfy our payment obligations under the notes, we may choose to enter into certain hedging arrangements (which may include call options, put options or other derivatives) with RBCCM and/or one of our other subsidiaries. The terms of these hedging arrangements take into account a number of factors, including our creditworthiness, interest rate

movements, and the tenor of the notes. The economic terms of the notes and their initial estimated value depend in part on the terms of these hedging arrangements. Our cost of hedging will include the projected profit that such counterparties expect to realize in consideration for assuming the risks inherent in hedging our obligations under the notes. Because hedging our obligations entails risks and may be influenced by market forces beyond the counterparties' control, such hedging may result in a profit that is more or less than expected, or could result in a loss. See "Use of Proceeds and Hedging" on page PS-13 of the accompanying product prospectus supplement PB-1.

The lower implied borrowing rate and the hedging-related costs relating to the notes reduce the economic terms of the notes to you and result in the initial estimated value for the notes on the trade date being less than their original issue price. See "Risk Factors—Our Initial Estimated Value of the Notes Will Be Less than the Original Issue Price."

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We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this pricing supplement, the accompanying product prospectus supplement PB-1, the accompanying prospectus supplement or the accompanying prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. These documents are an offer to sell only the notes offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in each such document is current only as of its respective date.

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Royal Bank of Canada
Leveraged Buffered S&P 500® Index-
Linked Notes, due , 2019

RBC Capital Markets, LLC

(1.64) ------ ------- ------ ------- Income (loss) before cumulative effect of accounting changes..... 2.02 (1.12) 1.11 (4.62) Cumulative effect of accounting changes, net of tax..... .01 (0.81) (0.80) (0.08) ------ ------- ------ ------- Net income (loss)..... $ 2.03 $ (1.93) $ 0.31 $ (4.70) ====== ======= ====== ======= DILUTED EARNINGS (LOSS) PER SHARE: Income (loss) from continuing operations..... $ 1.66 $ 0.42 $ 1.02 $ (2.98) Income (loss) from discontinued operations, net of tax..... 0.36 (1.54) 0.08 (1.64) ------ ------- ------ ------- Income (loss) before cumulative effect of accounting changes..... 2.02 (1.12) 1.10 (4.62) Cumulative effect of accounting changes, net of tax..... .01 (0.80) (0.80) (0.08) ------ ------- ------ ------- Net income (loss)..... $ 2.03 $ (1.92) $ 0.30 $ (4.70) ====== ======= ====== ======= NINE MONTHS ENDED YEAR ENDED DECEMBER 31, SEPTEMBER 30, ---------- ---------- 1998 1999 2000 2001 2002 2002 (1) (1) (1)(5) (1)(2)(5) (1)(3) (5) 2003 ------- -------- -------- --------- -------- ------- ------- (IN MILLIONS, EXCEPT OPERATING DATA) STATEMENT OF CASH FLOW DATA: Cash flows from operating activities..... $ (2) $ 38 $ 335 $ (152) $ 519 $ 272 $ 528 Cash flows from investing activities..... (365) (1,406) (3,013) (838) (3,486) (3,302) (757) Cash flows from financing activities..... 379 1,408 2,721 1,000 3,981 4,291 (771) OTHER OPERATING DATA: Trading and marketing activity(7): Natural gas (Bcf)(8)..... 1,115 1,481 2,273 3,265 3,449 2,925 765 Power sales (thousand MWh)(8)..... 61,195 128,266 125,971 222,907 306,425 244,332 67,450 Power generation activity: Wholesale power sales (thousand MWh)(8)..... 2,973 10,204 39,300 62,825 128,588 105,161 87,468 Retail power sales (GWh)..... -- -- -- 473 62,455 48,379 49,721 Net power generation capacity at end of period (MW)..... 3,800 4,469 9,231 10,521 19,300 19,888 20,399 40 DECEMBER 31, ---------- 1998 1999 2000 2001 2002 SEPTEMBER 30, (1) (1) (1)(5) (1)(5) (1) 2003(6) ------ ------- ------- ------- ------- ---------- (IN MILLIONS) BALANCE SHEET DATA: Property, plant and equipment, net..... $ 270 $ 592 $ 2,217 $ 2,796 $ 6,991 $ 8,508 Total assets..... 1,409 5,624 13,475 11,726 17,669 16,624 Short-term borrowings..... -- -- -- 92 669 307 Long-term debt to third parties, including current maturities..... -- 69 260 297 6,159 7,218 Accounts and notes (payable) receivable -- affiliated companies, net..... (17) (1,333) (1,967) 445 -- -- Stockholders' equity..... 652 741 2,345

5,984 5,653 4,285 ---------- (1) Our results of operations include the results of the following acquisitions, all of which were accounted for using the purchase method of accounting, from their respective acquisition dates: the five generating facilities in California substantially acquired in April 1998, a generating facility in Florida acquired in October 1999, the REMA acquisition that occurred in May 2000 and the Orion Power acquisition that occurred in February 2002. See note 5 to our consolidated financial statements incorporated by reference herein for further information about the acquisitions occurring in 2000 and 2002. In October 1999, we acquired REPGB, which is part of our European energy operations. In February 2003, we signed an agreement to sell our European energy operations to Nuon, a Netherlands-based electricity distributor. In the first quarter of 2003, we began to report the results of our European energy operations as discontinued operations in accordance with SFAS No. 144 and accordingly, reclassified prior period amounts. Also, in July 2003, we entered into a definitive agreement to sell our Desert Basin plant and have reflected those operations as discontinued and accordingly have reclassified prior periods. For further discussion of the sales, see notes 17 and 18 to our interim financial statements incorporated by reference herein. (2) Effective January 1, 2001, we adopted SFAS No. 133 which established accounting and reporting standards for derivative instruments. See note 7 to our consolidated financial statements incorporated by reference herein for further information regarding the impact of the adoption of SFAS No. 133. (3) During the third quarter of 2002, we completed the transitional impairment test for the adoption of SFAS No. 142 on our consolidated financial statements, including the review of goodwill for impairment as of January 1, 2002. Based on this impairment test, we recorded an impairment of our European energy segment's goodwill of $234 million, net of tax, as a cumulative effect of accounting change. See note 6 to our consolidated financial statements incorporated by reference herein for further discussion. (4) Beginning with the quarter ended September 30, 2002, we now report all energy trading and marketing activities on a net basis in the statements of consolidated operations. Comparative financial statements for prior periods have been reclassified to conform to this presentation. See note 2(t) to our consolidated financial statements incorporated by reference herein for further discussion. (5) As described in note 1 to our consolidated financial statements incorporated by reference herein, our consolidated financial statements for 2000 and 2001 have been restated from amounts previously reported. The restatement had no impact on previously reported consolidated cash flows. (6) During the nine months ended September 30, 2003, we recorded a charge of $985 million (pre-tax and after tax) related to an impairment of goodwill in our wholesale energy reporting unit. See note 7 to our interim financial statements incorporated by reference herein for discussion. (7) Excludes financial transactions. (8) Includes physical contracts not delivered. 41 MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS For our most recent annual consolidated financial statements and notes, see our Current Report on Form 8-K filed on November 14, 2003 and incorporated by reference herein. For our most recent annual "Management's Discussion and Analysis of Financial Condition and Results of Operations", see our Current Report on Form 8-K filed on November 14, 2003 and incorporated by reference herein. For our most recent interim consolidated financial statements and notes and interim "Management's Discussion and Analysis of Financial Condition and Results of Operations", see our Quarterly Report on Form 10-Q filed on November 12, 2003 and incorporated by reference herein. 42 OUR BUSINESS GENERAL Our business operations consist of the following business segments: - Retail energy -- provides electricity and related services to retail customers primarily in Texas and acquires and manages the electric energy, capacity and ancillary services associated with supplying these retail customers; - Wholesale energy -- provides electric energy and energy services in the competitive segments of the United States wholesale energy markets; - Other operations -- includes our venture capital investment portfolio and unallocated corporate costs. FORMATION, IPO AND DISTRIBUTION In June 1999, the Texas legislature adopted an electric restructuring law that amended the regulatory structure governing electric utilities in Texas in order to allow retail electric competition with respect to all customer classes beginning in January 2002. In response to this legislation, CenterPoint, formerly Reliant Energy, adopted a business separation plan in order to separate its regulated and unregulated electric operations. Under the business separation plan, we were incorporated in Delaware in August 2000, and CenterPoint transferred substantially all of its unregulated businesses to us. We completed an initial public offering of approximately 20% of our common stock in May 2001 and received net proceeds from our initial public offering of $1.7 billion. We used $147 million of the net proceeds of our initial public offering to repay certain indebtedness that we owed to CenterPoint. We used the remainder of the net proceeds of our IPO for repayment of third party borrowings, capital expenditures, repurchases of our common stock and general corporate purposes. In September 2002, the Distribution was completed and, as a result, we are no longer a subsidiary of CenterPoint.

RETAIL ENERGY We are a certified retail electric provider in Texas, which allows us to provide electricity to residential, small commercial and large commercial, industrial and institutional customers. In January 2002, we began to provide retail electric service to all customers of CenterPoint that did not take action to select another retail electric provider and to customers that selected us to provide them electric service. All classes of customers of most investor-owned Texas utilities can choose their retail electric provider. The law also allows municipal utilities and electric cooperatives to participate in the competitive marketplace, but to date, none have chosen to do so. Our retail energy segment provides standardized electricity and related products and services to residential and small commercial customers with an aggregate peak demand for power up to approximately one MW (i.e., small and mid-sized business customers) and offers customized electric commodity and energy management services to large commercial, industrial and institutional customers with an aggregate peak demand for power in excess of approximately one MW (e.g., refineries, chemical plants, manufacturing facilities, real estate management firms, hospitals, universities, school systems, governmental agencies, multi-site retailers, restaurants, and other facilities under common ownership or franchise arrangements with a single franchiser, which aggregate to approximately one MW or greater of peak demand). We own certain ERCOT generation facilities, which consist of ten power generation units completed or under various stages of construction at seven facilities with an aggregate net generation capacity of 805 MW located in Texas. The generating capacity of these facilities consists of 100% base-load capacity. We currently provide retail electric service only in Texas. However, we entered into contracts to provide retail electric services to large commercial, industrial and institutional customers in New Jersey that began on August 1, 2003, and we are taking steps to provide electricity and related products and 43 services to large commercial, industrial and institutional customers in certain other states. In New Jersey, we are registered as an "electric power supplier", in Pennsylvania, we are registered as an "electric generation supplier", and in Maryland, we are licensed as an "electric supplier". RESIDENTIAL AND SMALL COMMERCIAL SERVICES We have approximately 1.6 million residential customers and over 200,000 small commercial accounts in Texas, making us the second largest retail electric provider in Texas. The majority of our customers are in the Houston metropolitan area, but we also have customers in other metropolitan areas, including Dallas and Corpus Christi, Texas. In general, the Texas regulatory structure permits retail electric providers to procure electricity from wholesale generators at unregulated rates, sell the electricity at generally unregulated prices to retail customers and pay the local transmission and distribution utilities a regulated tariff rate for delivering the electricity to the customers. By allowing retail electric providers to provide retail electricity at any price, the Texas electric restructuring law is designed to encourage competition among retail electric providers. However, retail electric providers which are affiliates of, or successors in interest to, electric utilities are restricted in the prices they may charge to residential and small commercial customers within the affiliated transmission and distribution utility's traditional service territory. We are deemed to be the affiliated retail electric provider in CenterPoint's Houston area service territory, and we are an unaffiliated retail electric provider in all other areas. The prices that affiliated retail electric providers charge are subject to a specified price, or "price to beat" and the affiliated retail electric providers are not permitted to sell electricity to residential and small commercial customers in the service territory of the affiliated transmission and distribution utility at a price other than the price to beat until January 2005, unless before that date 40% or more electricity consumed in 2000 by the relevant class of customers in the affiliated transmission and distribution utility service territory is committed to be served by other retail electric providers. Unaffiliated retail electric providers may sell electricity to residential and small commercial customers at any price. In addition, the Texas electric restructuring law requires the affiliated retail electric provider to make the price to beat available to residential and small commercial customers who request it in the affiliated transmission and distribution utility's traditional service territory until January 1, 2007. The price to beat only applies to electric services provided to residential and small commercial customers (i.e., customers with an aggregate peak demand at or below one MW). The PUCT's regulations allow an affiliated retail electric provider to adjust the price to beat based on the wholesale energy supply cost component or "fuel factor" included in its price to beat up to twice a year. The PUCT's current regulations allow us to request an adjustment of our fuel factor based on the percentage change in the forward price of natural gas or as a result of changes in the price of purchased energy. As part of a request to change the fuel factor for changes in purchased energy prices, we would have to show that the fuel factor must be adjusted to restore the amount of headroom that existed at the time the initial price to beat fuel factor was set by the PUCT. During 2002, we requested, and the PUCT approved, two such adjustments to our price to beat fuel factor. In January 2003, we requested, and the PUCT approved in March 2003, an increase of our price to beat fuel factor. In July 2003, our

second and final request for 2003 was approved by the PUCT to increase the price to beat fuel factor based on a 23.1% increase in the price of natural gas. Our requested increase was based on an average forward 12-month natural gas price of $6.1000/MMbtu during the twenty-day trading period beginning May 14, 2003 and ending June 11, 2003. The requested increase represents an increase of 9.2% in the total bill of a residential customer using, on average, 12,000 kilowatt hours per year. We cannot estimate with any certainty the magnitude and timing of future adjustments required, if any, or the impact of such adjustments on our headroom. To the extent that a requested adjustment is not received on a timely basis, our results of operations, financial condition and cash flows may be adversely affected. In March 2003, the PUCT approved a revised price to beat rule. The changes from the previous rule include an increase in the number of days used to calculate the natural gas price average from 10 trading 44 days to 20 trading days, and an increase in the threshold of what constitutes a significant change in the market price of natural gas from 4% to 5%, except for filings made after November 15th of a given year that must meet a 10% threshold. The revised rule also provides that the PUCT will, after reaching a determination of stranded costs in 2004, make downward adjustments to the price to beat fuel factor if natural gas prices drop below the prices embedded in the then-current price to beat fuel factor. In addition, the revised rule also specifies that the base rate portion of the price to beat will be adjusted to account for changes in the non-bypassable rates that result from the utilities' final stranded cost determination in 2004. Adjustments to the price to beat will be made following the utilities' final stranded cost determination in 2004. We will be required to make a payment to CenterPoint in 2004 as required by the Texas electric restructuring law, unless on or prior to January 1, 2004, 40% or more of the amount of electric power that was consumed in 2000 by residential or small commercial customers, as applicable, within CenterPoint's Houston service territory is being provided by retail electric providers other than us. This amount will be computed by multiplying $150 by the number of residential or small commercial customers, as the case may be, that we serve on January 1, 2004 in CenterPoint's Houston service territory, less the number of residential or small commercial electric customers, as the case may be, we serve in other areas of Texas. Currently, we believe it is probable that we will be required to make a payment in the range of $170 million to $180 million (pre-tax), with a most probable estimate of $175 million to CenterPoint related to our residential customers only. Currently, we believe that the 40% test for small commercial customers will be met and we will not make a payment related to those customers. If the 40% test is not met related to our small commercial customers and a payment is required, we estimate this payment would be approximately $30 million. LARGE COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL SERVICES -- SOLUTIONS BUSINESS We provide electricity and energy services to large commercial, industrial and institutional customers (i.e., customers with an aggregate peak demand of greater than approximately one MW) in Texas with whom we have signed contracts. In addition, we provide electricity to those large commercial, industrial and institutional customers in CenterPoint's service territory who have not entered into a contract with any retail electric provider. We also provide customized energy solutions, including risk management and energy services products, and demand side and energy information services to our large commercial, industrial and institutional customers. Our large commercial, industrial and institutional customers include refineries, chemical plants, manufacturing facilities, real estate management firms, hospitals, universities, school systems, governmental agencies, multi-site retailers, restaurants and other facilities under common ownership or franchise arrangements with a single franchiser, which aggregate to approximately one MW or greater of peak demand. Excluding those parts of Texas not currently open to competition, the large commercial, industrial and institutional segment in Texas consists of approximately 2,700 buying organizations consuming an estimated aggregate of approximately 17,000 MW of electricity at peak demand. Our contracts with customers represent a peak demand of approximately 5,500 MW at approximately 24,000 metered locations. PROVIDER OF LAST RESORT In Texas, a provider of last resort is required to offer standard retail electric service with no interruption of service, except in the event of non-payment, to any customer requesting electric service, to any customer whose certified retail electric provider has failed to provide electric service or to any customer that voluntarily requests this type of service. Through a competitive bid process administered by the PUCT, we were appointed to serve as the provider of last resort in many regions of the state. We do not expect to serve a large number of customers in this capacity, as many customers are expected to subsequently select a retail electric provider. We will serve a two-year term as the provider of last resort ending December 31, 2004. Pricing for service provided by a provider of last resort may include a 45 customer charge and an energy charge, which for residential and small commercial customers is adjustable based upon changes in the forward price of natural gas. For large non-residential customers, the energy charge is adjusted based upon the ERCOT market-clearing price of energy. For all customer

classes, the adjustment to the energy charge is subject to a floor amount. Non-residential customers will be assessed a demand charge. RETAIL ENERGY SUPPLY We continuously monitor and update our retail energy supply positions based on our retail energy demand forecasts and market conditions. We enter into bilateral contracts with third parties for electric energy, capacity and ancillary services. Texas Genco (currently 81% owned by CenterPoint), which owns approximately 13,900 MW of aggregate net generation capacity in Texas, is our primary source of retail energy capacity. In total, we have contracted for approximately two-thirds of our capacity requirements for 2004 and a significant portion of our estimated 2005 requirements, in part, by purchasing entitlements to generation capacity from Texas Genco. In the future, we expect to continue to contract for a significant portion of the supply requirements of our Texas retail energy business, but over time we are likely to supplement our market-based purchases with the acquisition of individual generation assets. Unless otherwise extended, Texas Genco's obligation to sell 85% of its generation capacity in auctions and the master purchase agreement governing purchases of capacity and/or energy from Texas Genco will terminate on January 24, 2004, the expiration date of the Texas Genco option. The termination of these contractual arrangements will have no impact on existing purchase commitments with Texas Genco entered into prior to that date. The master power purchase agreement is secured by a lien against our rights in accounts receivable and related assets of certain of our subsidiaries. The master power purchase agreement does not require us to post cash collateral or letters of credit to secure our obligations so long as Texas Genco's credit exposure to us under the contract does not exceed $250 million from May 1 to August 31 and $200 million from September 1 through April 30. We have an option to acquire CenterPoint's holdings of the common stock of Texas Genco that is exercisable from January 10, 2004 until January 24, 2004. On December 5, 2003, we announced that it is unlikely that we will exercise our option to purchase CenterPoint's holdings of common stock of Texas Genco. ERCOT We are a member of ERCOT. The ERCOT ISO is responsible for maintaining reliable operations of the bulk electric power supply system in the ERCOT Region. Its responsibilities include ensuring that information relating to a customer's choice of retail electric provider is conveyed in a timely manner to anyone needing the information. It is also responsible for ensuring that electricity production and delivery are accurately accounted for among the generation resources and wholesale buyers and sellers in the ERCOT Region. Unlike some independent system operators in other regions of the country, the ERCOT ISO does not operate a centrally dispatched pool and does not procure energy on behalf of its members other than to maintain the reliable operation of the transmission system. Members are responsible for contracting their energy requirements bilaterally. The ERCOT ISO also serves as agent for procuring ancillary services for those who elect not to secure their own ancillary services requirement. Members of ERCOT include retail customers, investor and municipal owned electric utilities, rural electric cooperatives, river authorities, independent generators, power marketers and retail electric providers. The ERCOT Region operates under the reliability standards set by the North American Electric Reliability Council. The PUCT has primary jurisdictional authority over the ERCOT Region to ensure the adequacy and reliability of electricity across the state's main interconnected power grid. 46 The ERCOT Region is divided into four congestion zones: north, south, west and Houston. While most of our retail demand and associated supply is located in the Houston congestion zone, we serve customers and acquire supply in all four congestion zones. In addition, ERCOT conducts annual and monthly auctions of transmission congestion rights which provide the entity owning transmission congestion rights the ability to financially hedge price differences between zones (basis risk). The PUCT prohibits any single ERCOT market participant from owning more than 25% of the available transmission congestion rights on any congestion path. COMPETITION For information regarding competitive factors affecting our retail energy segment, see "Risk Factors -- Risks Related to Our Retail Energy Operations". WHOLESALE ENERGY Our wholesale energy segment provides energy and energy services with a focus on the competitive segment of the United States wholesale energy markets. We have built a portfolio of electric power generation facilities, through a combination of acquisitions and development, that are not subject to traditional cost-based regulation; therefore, we can generally sell electricity at prices determined by the market, subject to regulatory limitations. We market electric energy, capacity and ancillary services and procure and, in some instances, resell, natural gas, coal, fuel oil, natural gas transportation capacity and other energy-related commodities to optimize our physical assets and manage the risk of our asset portfolio. In March 2003, we decided to exit our proprietary trading activities and liquidate, to the extent practicable, our proprietary positions. Although we have exited our proprietary trading activities, we have legacy positions, which will be closed as economically feasible or in accordance with their terms. We will continue to engage in marketing and hedging activities related to our electric generating facilities, pipeline transportation capacity positions, pipeline storage

positions and fuel positions. OVERVIEW OF WHOLESALE ENERGY MARKET Over the past two years, the wholesale energy markets in the United States have undergone dramatic changes. In late 2000 into early 2001, power markets across most of the United States were trading at historical highs due in large part to tight wholesale power market conditions, gas prices being at record levels because of falling supplies and strong demand from a growing economy, gas trading volumes continuing their rapid growth, and power trading and generation companies having substantial access to the debt and equity markets. However, during the summer of 2001, market conditions began to take a downward turn when the first significant wave of nearly 200,000 MW of new generating capacity commenced operations and began to ease the tight wholesale power market conditions. Also, state regulators, in concert with the FERC, began to impose price caps and other marketplace rules that resulted in power and ancillary service prices in certain markets being at or near the variable cost to provide them. Energy trading activity also saw a sharp reversal during 2001. The failure of certain energy companies damaged the reputation of the entire industry and energy trading specifically. The heightened attention on energy trading businesses and the subsequent findings and allegations of questionable business practices and transactions engaged in by a number of industry participants, including us, caused a further erosion of confidence in the industry. As a result, liquidity in the market began to decline. The overall market conditions in the wholesale power industry continued to worsen during 2002. With the addition of still more generation capacity and heightened regulatory oversight, power prices continued their downward trend, trading at or barely above the variable cost of production in many markets. Confronted with a weaker profit outlook in both electric generation and energy trading and significant amounts of short-term debt to be refinanced, credit agencies began a series of downgrades of substantially all the industry's major market participants, leaving many with below investment grade credit ratings. These downgrades severely curtailed the access of these companies to the debt or equity markets and triggered credit collateral requirements relating to their trading and hedging activities. Consequently, many companies were forced to significantly reduce their trading activities, which further reduced market 47 liquidity. Moreover, during the second quarter of 2003, market liquidity was negatively impacted by the filings for reorganization under Chapter 11 of the United States Bankruptcy Code of three companies in the wholesale power industry, NRG Energy Inc., National Energy & Gas Transmission, Inc. and Mirant Corp. During the second half of 2002 and continuing into 2003, investors and government regulators, as well as many industry participants and independent observers, urged industry reforms to provide more balanced and sustainable long-term market conditions in both the power markets and the energy trading markets. The most significant of these are the FERC's efforts to implement SMD and industry efforts to develop clearing and settlement provisions at energy exchanges that would greatly reduce collateral requirements of participating companies. POWER GENERATION OPERATIONS We own, own an interest in, or lease 119 operating electric power generation facilities with an aggregate net generating capacity of 19,279 MW located in five regions of the United States (excluding our ERCOT generation facilities). This excludes 588 MW related to our Desert Basin plant, which was sold in October 2003, and 811 MW related to the retirement of certain units in the West and Mid-Atlantic regions. We have 1,063 MW of additional net generating capacity under construction. One gas-fired generating facility (541 MW) is due to reach commercial operation in the fourth quarter of 2003 and one waste-coal fired generating facility (522 MW) is due to reach commercial operation in the second half of 2004. The generating capacity of these facilities consists of approximately 25% of base-load, 44% of intermediate and 31% of peaking capacity. The following table describes our electric power generation facilities and net generating capacity by region as of December 5, 2003: TOTAL NET NUMBER OF GENERATING GENERATION CAPACITY REGION FACILITIES(1) (MW)(2) DISPATCH TYPE(3) FUEL TYPE ------ ------------ ---------- ---------- ---------- MID-ATLANTIC Operating(4)(5)..... 21 5,161 Base, Intermediate, Peak Gas/Coal/Oil/Hydro Under Construction(6)(7).... 1 522 Base Coal --- ------ Combined..... 22 5,683 NEW YORK Operating(8)..... 77 2,952 Base, Intermediate, Peak Gas/Oil/Hydro MID-CONTINENT Operating..... 9 4,484 Base, Intermediate, Peak Gas/Oil/Coal SOUTHEAST Operating(9)(10)..... 6 3,010 Base, Intermediate, Peak Gas/Oil WEST Operating(11)(12)(13)(14)... 6 3,672 Base, Intermediate, Peak Gas/Oil Under Construction(6)..... 1 541 Base, Intermediate Gas --- ------ Combined..... 7 4,213 TOTAL Operating..... 119 19,279 Under Construction..... 2 1,063 --- ------ Combined..... 121 20,342 ========== ---------- (1) Unless otherwise indicated, we own a 100% interest in each facility listed. 48 (2) Average summer and winter net generating capacity. (3) We use the designations "Base," "Intermediate," and "Peak" to indicate whether the facilities described are base-load, intermediate, or peaking facilities, respectively. (4) We lease a 100%, 16.67% and 16.45% interest in three Pennsylvania facilities having 614 MW, 284 MW and 282 MW of net

generating capacity, respectively, through facility lease agreements having terms of 26.25 years, 33.75 years and 33.75 years, respectively. (5) In October 2003, we announced the retirement of two Mid-Atlantic generation units having 232 MW of net generating capacity, which are excluded from the table above. (6) We consider a project to be "under construction" once we have acquired the necessary permits to begin construction, broken ground on the project site and contracted to purchase machinery for the project, including the combustion turbines. (7) In November 2003, we retired two generation units having 197 MW of net generating capacity at the Seward facility, which are excluded from the table above. This retirement was necessary to continue construction of the replacement capacity of 522 MW. (8) Excludes two hydro plants with a net generating capacity of 5 MW, which are not currently operational. (9) We own a 50% interest in one of these facilities having a net generating capacity of 108 MW. An independent third party owns the other 50%. (10) We are party to tolling agreements entitling us to 100% of the capacity of two Florida facilities having 630 MW and 474 MW of net generating capacity, respectively. These tolling agreements have terms of 10 years and 5 years, respectively, and are treated as operating leases for accounting purposes. (11) In October 2003, we announced the retirement of two California generation units having 264 MW of total net generating capacity were idled due to a lack of required environmental permits, which are excluded from the table above. (12) At the end of December 2003, we will retire one California generation unit having 118 MW of net generating capacity, which are excluded from the table above, due to a lack of required environmental permits. (13) We own a 50% interest in one Nevada facility having a total generating capacity of 470 MW. An independent third party owns the other 50%. (14) In November 2003, we announced that the following units in California will be mothballed: two units at Etiwanda (640 MW); one unit at Mandalay (130 MW) and one unit at Ellwood (54 MW), which are included in the table above. MID-ATLANTIC REGION Facilities. We own, own an interest in, or lease 21 operating electric power generation facilities with an aggregate net generating capacity of 5,161 MW located in Pennsylvania, New Jersey and Maryland. The generating capacity of these facilities consists of approximately 28% of base-load, 47% of intermediate and 25% of peaking capacity. We are constructing a 522 MW coal-fired base-load unit that will replace two of our generating units at an existing facility located in Pennsylvania. We expect this unit will begin commercial operation by the end of 2004. Because of lower price conditions in the PJM Market and the rising cost of operations, particularly with respect to emission costs, we retired an 82 MW coal-fired facility located in our Mid-Atlantic region in September 2002. In November 2003, we retired two generation units having 197 MW of net generating capacity to allow continued construction of replacement capacity (522 MW) at the facility. In addition, we plan to retire two Mid-Atlantic generation units having 232 MW of total net generating capacity, in early 2004. 49 The following table describes the electric power generation facilities we owned, leased or had under construction in the Mid-Atlantic region of the United States as of December 5, 2003: SUMMER/WINTER NET GENERATING GENERATION FACILITIES(1) LOCATION CAPACITY(MW) FUEL TYPE DISPATCH TYPE(2) ---------- ---------- ---------- ---------- Operating Blossburg..... Pennsylvania 23 Gas Peak Conemaugh(3)..... Pennsylvania 282 Coal/Oil Base/Peak Deep Creek..... Maryland 19 Hydro Base Gilbert..... New Jersey 615 Dual Inter/Peak Glen Gardner..... New Jersey 184 Dual Peak Hamilton..... Pennsylvania 23 Oil Peak Hunterstown..... Pennsylvania 866 Dual/Gas Inter/Peak Keystone(3)..... Pennsylvania 284 Coal/Oil Base/Peak Liberty..... Pennsylvania 568 Gas Base Mountain..... Pennsylvania 47 Dual Peak Orrtanna..... Pennsylvania 23 Oil Peak Piney..... Pennsylvania 28 Hydro Base Portland..... Pennsylvania 584 Coal/Gas/Oil Base/Inter/Peak Sayreville(5)..... New Jersey 264 Dual Peak Shawnee..... Pennsylvania 23 Oil Peak Shawville(3)..... Pennsylvania 614 Coal/Oil Base/Peak Titus..... Pennsylvania 281 Coal/Dual Inter/Peak Tolna Station..... Pennsylvania 47 Oil Peak Warren..... Pennsylvania 68 Dual Peak Wayne..... Pennsylvania 66 Oil Peak Werner..... New Jersey 252 Oil Peak ----- Total Operating..... 5,161 ----- Under Construction Seward(4)..... Pennsylvania 522 Coal Base ----- Total Under Construction..... 522 ----- TOTAL COMBINED..... 5,683 ===== ---------- (1) Unless otherwise indicated, we own a 100% interest in each facility listed. All of these facilities are operational. (2) We use the designations "Base," "Inter" and "Peak" to indicate whether the facilities described are base-load, intermediate or peaking facilities, respectively. (3) We lease a 100% interest in the Shawville Station, a 16.67% interest in the Keystone Station and a 16.45% interest in the Conemaugh Station under facility interest lease agreements with original terms of 26.25 years, 33.75 years and 33.75 years, respectively. (4) In November 2003, we retired two generation units having 197 MW of net generating capacity at the Seward facility, which are excluded from the table above. This retirement was necessary to continue construction of the replacement capacity of 522 MW. (5) In October 2003, we announced the retirement of two

Sayreville generation units having 232 MW of net generating capacity, which are excluded from the table above. Market Framework. We currently sell the power generated by our Mid-Atlantic facilities in the PJM Market and occasionally to buyers in adjacent power markets, such as the ECAR Market and NY Market. We also expect to sell power in a newly created PJM West Market. Each of the PJM, the NY and the 50 PJM West Markets operates as centralized power pools with open-access, non-discriminatory transmission systems. The PJM and PJM West Markets are administered by PJM, a FERC-approved RTO. Although the transmission infrastructure within these markets is generally well developed and independently operated, transmission constraints exist between, and to a certain extent within, these markets. In particular, transmission of power from western Pennsylvania and upstate New York to eastern Pennsylvania, New Jersey and New York City may be constrained. Depending on the timing and nature of transmission constraints, market prices may vary from market to market, or between sub-regions of a particular market. Market prices are generally higher in New York City than in other parts of New York due to the transmission constraints. In addition to managing the transmission system, PJM is responsible for maintaining competitive wholesale markets, operating the spot wholesale electric energy, capacity and ancillary services markets and determining the market clearing price based on bids submitted by participating generators in each market. PJM generally matches sellers with buyers within a particular market that meet specified minimum credit standards. We sell electric energy, capacity and ancillary services into the markets maintained by PJM on both a real-time basis and a forward basis for periods of up to one year. Our customers consist of the members of each market, including municipalities, electric cooperatives, integrated utilities, transmission and distribution utilities, retail electric providers and power marketers. We also sell electric energy, capacity and ancillary services to customers in our Mid-Atlantic region under negotiated bilateral contracts. PJM has an internal market monitor. The internal market monitor reports on issues relating to the operation of the PJM Market, including the determination of transmission congestion costs or the potential of any market participation to exercise market power within the PJM Market or PJM West Market. The internal market monitor evaluates the operation of both spot and bilateral markets to detect either design or structural flaws in the PJM Market and evaluates any proposed enforcement mechanisms that are necessary to assure compliance with the PJM Protocols. The PJM Protocols allow energy demand to respond to price changes. The lack of sufficient energy demand that may respond has been cited as the primary reason for retaining the electric energy, capacity and ancillary service market caps, which are currently set at $1,000 per MWh in the PJM Market and the energy price mitigation measures in the PJM Market. Energy market price mitigation measures are implemented for some generating facilities when, in the opinion of PJM, transmission constraints are present. This is commonly referred to as price capping. In such instances, PJM requires, for purposes of system reliability, the dispatch of specific units. In the opinion of PJM, these units are not needed to meet energy demand and are only necessary to maintain the stability of the PJM transmission system. When price capping is imposed, the asking price submitted by these generating facilities is disregarded in setting the PJM market price and the subject units receive a mitigated price that is generally equal to incremental operating costs of the generating unit plus 10%. Historically, 11 generating facilities, representing over 250 MW, in our Mid-Atlantic region have been consistently impacted by this procedure. In addition, a few other generating facilities in our Mid-Atlantic region have experienced occasional price capping during selective hours. PJM attempts to ensure that there is sufficient generation capacity to meet energy demand and ancillary services requirements through a capacity market. All power retailers are required to demonstrate commitments for capacity sufficient to meet their peak forecasted load plus a reserve above this level, currently set at 18%. Prices for capacity are capped by PJM at approximately $175 per MW per day. NEW YORK REGION Facilities. We own 77 operating electric power generation facilities with an aggregate net generating capacity of 2,952 MW located in New York. Our generating facilities in the New York region consist of two distinct groups, intermediate and peaking facilities located in New York City and, with the exception of one gas-fired facility, 73 small run-of-river hydro facilities located in central and northern New York 51 State. The overall generating capacity of these facilities consists of approximately 23% of base-load, 41% of intermediate and 36% of peaking capacity. With the exception of one facility, all of our New York facilities were acquired as a result of utility divestitures. The following table describes the electric power generation facilities we owned, leased or had under construction in the New York region of the United States as of December 5, 2003: SUMMER/WINTER NET GENERATING GENERATION FACILITIES(1) LOCATION CAPACITY (MW) FUEL TYPE DISPATCH TYPE(2) ---------- -------- ---------- -------- ---------- Operating Astoria..... New York 1,277 Gas/Dual Inter/Peak Carr Street..... New York 101 Gas Inter Gowanus..... New York 597 Dual/Oil

Peak Narrows..... New York 305 Dual Peak Hydroelectric assets(3)..... New York 672 Hydro Base ----- Total Operating..... 2,952 ===== ---------- (1) Unless otherwise indicated, we own a 100% interest in each facility listed. All of these facilities are operational. (2) We use the designations "Base," "Inter" and "Peak" to indicate whether the facilities described are base-load, intermediate or peaking facilities, respectively. (3) Excludes two hydro plants with a net generating capacity of 5 MW, which are not currently operational. Market Framework. We currently sell the power generated by our New York regional facilities in the NY Market. In New York City, we sell electric energy and ancillary services into both day-ahead and real-time markets and capacity in the monthly and six month forward markets. Our customers include municipalities, electric cooperatives, integrated utilities, transmission and distribution utilities, retail electric providers and power marketers. Our hydro facilities are currently under contract to sell all electric energy, capacity and ancillary services to Niagara Mohawk under contract through September 2004. Our sales into markets administered by NYISO are governed by the NYISO Protocols. The NYISO Protocols allow energy demand to respond to high prices in emergency and non-emergency situations. The lack of sufficient energy demand that may respond to prices has been cited as one of the primary reasons for retaining wholesale energy bid caps, which are currently set at $1,000 per MWh in the NY Market. The NYISO Protocols established a capacity market in order to ensure that there is enough generation capacity to meet retail energy demand and ancillary services requirements. All power retailers are required to demonstrate commitments for capacity sufficient to meet their peak forecasted load plus a reserve requirement, currently set at 18%. As an additional local reliability measure, power retailers located in New York City are required to procure the majority of this capacity, currently 80% of their peak forecasted load, from generating units located in New York City. Because only a few suppliers own the existing in-city capacity, previously divested utility generation is subject to a capacity price cap of $105 per KW per year, and sales capacity from substantially all our existing in-city generating units are subject to this cap. Any generation capacity added following divestiture is not subject to a capacity price cap. NYISO has implemented a measure known as the "automated mitigation procedure" under which day-ahead energy bids will be automatically reviewed. If bids exceed certain pre-established thresholds and have a significant impact on the market-clearing price, the bids are then reduced to a pre-established market based or negotiated reference bid. NYISO has also adopted, at the FERC's direction, more stringent mitigation measures for all generating facilities in transmission-constrained New York City. NYISO has an internal market monitoring organization. The market monitor assesses the efficiency and effectiveness of the electric energy, capacity and ancillary services. In performing these functions, the internal market monitor develops reference price levels for each generator, oversees the operation of NYISO's automatic mitigation procedure, investigates potential anti-competitive behavior by market 52 participants, recommends changes in market Protocols and prepares periodic reports for submission to the FERC and other agencies. In addition, NYISO also has an external market advisor that works closely with the market monitor and has the independent authority to suggest changes in Protocols or recommend sanctions or penalties directly to the NYISO governing board. The NYISO market advisor issues written reports containing analyses and recommendations, which are made available to the public.

MID-CONTINENT REGION Facilities. We own 9 operating electric power generation facilities with an aggregate net generating capacity of 4,484 MW located in Illinois, Ohio, Pennsylvania and West Virginia. The generating capacity of these facilities consists of approximately 51% of base-load, 7% of intermediate and 42% of peaking capacity. The following table describes the electric power generation facilities we owned or had under construction in the Mid-Continent region of the United States as of December 5, 2003: SUMMER/WINTER NET GENERATING GENERATION FACILITIES(1) LOCATION CAPACITY (MW) FUEL TYPE DISPATCH TYPE(2) ---------- ---------- ---------- --------- ---------- Operating Aurora..... Illinois 912 Gas Peak Avon Lake..... Ohio 721 Coal/Oil Base/Peak Brunot Island..... Pennsylvania 367 Gas/Oil Inter/Peak Ceredo..... West Virginia 475 Gas Peak Cheswick..... Pennsylvania 566 Coal Base Elrama..... Pennsylvania 487 Coal Base New Castle..... Pennsylvania 339 Coal/Gas Base/Peak Niles..... Ohio 246 Coal/Gas Base/Peak Shelby County..... Illinois 371 Gas Peak ----- Total Operating..... 4,484 ===== ---------- (1) Unless otherwise indicated, we own a 100% interest in each facility listed. (2) We use the designations "Base," "Inter" and "Peak" to indicate whether the facilities described are base-load, intermediate or peaking facilities, respectively. Market Framework. We generally sell the electric energy, capacity and ancillary services generated and/or provided by our Mid-Continent region portfolio into the PJM West Market, the ECAR Market and the MAIN Market. These markets include all or portions of Illinois, Wisconsin, Missouri, Indiana, Ohio, Michigan, Virginia, West Virginia, Tennessee, Maryland and Pennsylvania. The PJM West

Market operates as part of the PJM centralized power pool with an open-access, non-discriminatory transmission system administered by an independent system operator approved by the FERC that is responsible for, among other things, maintaining competitive wholesale markets, operating the spot wholesale energy market and determining the market clearing price. The ECAR and MAIN Markets continue to be in a state of transition and are in the process of establishing RTOs that would define the rules and requirements around which competitive wholesale markets in the region would develop. The FERC has granted RTO status to the MISO, which administers a substantial portion of the transmission facilities in the Mid-Continent region. The FERC has also approved the various RTO selections made by the members of the former Alliance RTO. Some of the members of this group will join the MISO and others will join PJM. The final market structure for the Mid-Continent region remains unsettled. Some states within the ECAR and MAIN Markets have restructured their retail electric power markets to competitive markets from traditional utility monopoly markets, while others have not. 53 The FERC has also required MISO to engage the services of an independent market monitor. The independent market monitor's duties include monitoring the functioning of the markets run by the MISO to ensure that they are functioning efficiently. This includes identifying factors that might contribute to economic inefficiency such as design flaws, inefficient market rules and barriers to entry. The independent market monitor must also monitor the conduct of individual market participants. MISO is currently waiting on approval by the FERC for a market mitigation plan that resembles the automated mitigation procedure utilized by NYISO. Our generating facilities located in Pennsylvania, Ohio, and West Virginia straddle the PJM West and other ECAR Markets. Currently, these generating facilities are primarily dedicated to serving the power demands of Duquesne Light in the greater Pittsburgh area under one contract through December 2004 and another which does not have a fixed termination date. During periods when the capacity of the generating facilities in our Mid-Continent region exceeds the power demands of the Duquesne Light, we may sell the excess power into the market. We currently sell electric energy, capacity and ancillary services from our Illinois generating facilities under bilateral contracts that have terms and conditions tailored to meet the customers' requirements. Our customers include municipalities, electric cooperatives, vertically integrated utilities, transmission and distribution utilities and power marketers. SOUTHEAST REGION Facilities. We own, own an interest in, or lease six power generation facilities with an aggregate net generating capacity of 3,010 MW located in Florida, Mississippi and Texas. The generating capacity of these facilities consists of approximately 2% of base-load, 46% of intermediate and 52% of peaking capacity. The following table describes the electric power generation facilities we owned in the Southeast region of the United States as of December 5, 2003: NET GENERATING GENERATION FACILITIES(1) LOCATION CAPACITY (MW) FUEL TYPE DISPATCH TYPE(2) ---------- -------- ---------- --------- ---------- Operating Sabine(3)..... Texas 54 Gas Base Choctaw..... Mississippi 800 Gas Inter Indian River..... Florida 587 Dual Inter Osceola..... Florida 465 Dual Peak Leased facilities(4)..... Florida 1,104 Dual Peak ----- Total Operating..... 3,010 ===== ---------- (1) Unless otherwise indicated, we own a 100% interest in each facility listed. (2) We use the designations "Base," "Inter" and "Peak" to indicate whether the facilities described are base-load, intermediate or peaking facilities, respectively. (3) We own a 50% interest in this facility. An independent third party owns the other 50%. (4) We are party to tolling agreements entitling us to 100% of the capacity of two Florida facilities having 630 MW and 474 MW of net generating capacity, respectively. These tolling agreements have terms of 10 years and 5 years, respectively, and are treated as operating leases for accounting purposes. One of these facilities is currently owned by Mirant Corp., which filed for reorganization under Chapter 11 of the United States Bankruptcy Code on July 14, 2003. Market Framework. We currently conduct the majority of our Southeast regional operations in Florida. Florida, other than a portion of the western panhandle, constitutes a single reliability council and contains approximately 5% of the United States population. Although dominated by incumbent utilities, Florida is in the process of transitioning to a competitive wholesale generation market by developing rules for new capacity procurement and establishing the GridFlorida RTO. The FPSC has implemented new capacity procurement rules that require utilities to seek bids to purchase electricity from independent 54 power producers and other utilities before embarking on self-build options for new capacity requirements. Additionally, the FPSC has approved a proposal to increase the level of planning reserve capacity from 15% to 20%. This new criterion applies to the three investor-owned utilities operating in peninsular Florida and becomes effective in the summer of 2004. The Florida markets are expected to be administered by the GridFlorida RTO. For the past year, the GridFlorida RTO's activities have focused on concerns expressed by the FPSC. However, recent progress has been slow due to a legal challenge by the state's consumer advocate division, which is disputing

the FPSC's authority to authorize the transfer of assets to an RTO. A decision on this matter may not be reached until early 2004. At this time, the GridFlorida RTO has not finalized its proposal for market monitoring, but it will be obligated to establish a market monitor. We currently sell electric energy and capacity into the Florida market primarily under bilateral contracts that are non-standard and negotiated for terms and conditions. An OTC trading and ancillary services market has yet to fully develop. Customers who participate in power transactions in this region include municipalities, electric cooperatives and integrated utilities. In the rest of the Southeast Region, RTO formation is occurring under the auspices of the SeTrans RTO. The SeTrans RTO will cover the area from Georgia to eastern Texas. While the FERC has currently approved the basic formation of this entity, significant details of this market will not be known until mid or late 2003. Because the SeTrans RTO is still in the formative stages of development, it has only recently begun the process of selecting the independent entity that will become its market monitor. WEST REGION Facilities. We own, or own an interest in, six electric power generation facilities with an aggregate net generating capacity of 3,790 MW located in California and Nevada. The generating capacity of these facilities consists of approximately 6% of base-load, 89% of intermediate and 5% of peaking capacity. We are constructing a 541 MW gas-fired, base-load and intermediate generation facility in southern Nevada. We expect this facility will begin commercial operation in the fourth quarter of 2003. The following table describes the electric power generation facilities we owned or had under construction in the West region of the United States as of December 5, 2003: SUMMER/WINTER NET GENERATING GENERATION FACILITIES(1) LOCATION CAPACITY (MW) PRIMARY FUEL DISPATCH TYPE(2) ---------- ---------- ---------- ---------- ---------- Operating Coolwater..... California 658 Gas/Dual Inter El Dorado(3)..... Nevada 235 Gas Base Ormond Beach..... California 1,525 Gas Inter Etiwanda(4)(5)(6)..... California 640 Gas Inter/Peak Mandalay(7)..... California 560 Gas Inter/Peak Ellwood(8)..... California 54 Gas Peak ----- Total Operating..... 3,672 Under Construction Bighorn(9)..... Nevada 541 Gas Base/Inter ----- TOTAL COMBINED..... 4,213 ===== ---------- (1) Unless otherwise indicated, we own a 100% interest in each facility listed. (2) We use the designations "Base," "Inter" and "Peak" to indicate whether the facilities described are base-load, intermediate or peaking facilities, respectively. (3) We own a 50% interest in the El Dorado facility. Sempra Energy owns the other 50%. 55 (4) In October 2003, we announced the retirement of two Etiwanda generation units having 264 MW of total net generating capacity, due to a lack of required environmental permits, which are excluded from the table above. (5) At the end of December 2003, we will retire one California generation unit having 118 MW of net generating capacity, which are excluded from the table above, due to a lack of required environmental permits. (6) Includes 640 MW of capacity mothballed in November 2003. (7) Includes 130 MW of capacity mothballed in November 2003. (8) Includes 54 MW of capacity mothballed in November 2003. (9) We expect this facility will begin commercial operation in the fourth quarter of 2003. Market Framework. Our West regional market includes the states of Arizona, California, Oregon, Nevada, New Mexico, Utah and Washington. Generally we sell the electric energy, capacity and ancillary services generated and/or provided by our California and Nevada facilities to customers located in the greater Los Angeles metropolitan area and in southern Nevada. We believe that our portfolio of intermediate and peaking facilities in southern California is important to the reliability of the California market given its production flexibility and close proximity to Los Angeles. Our customers in these states include power marketers, investor-owned utilities, electric cooperatives, municipal utilities and the Cal ISO acting on behalf of load-serving entities. We sell electric energy, capacity and ancillary services to these customers through a combination of bilateral contracts and sales made in the Cal ISO's day-ahead and hour-ahead ancillary services markets and its real-time energy market. The Cal ISO does not currently maintain a capacity market to ensure resource adequacy; however, California regulatory authorities are in the process of developing such a mechanism. On July 9, 2003, we entered into a definitive agreement to sell our 588 MW Desert Basin plant to SRP. The sale closed on October 15, 2003. In addition, although we do not own generation facilities in the states of Oregon, New Mexico, Utah and Washington, our trading and marketing operations have historically purchased and delivered energy commodities in these states. Two units at our Etiwanda facility in California totaling 264 MW of intermediate capacity, under their current configuration, do not satisfy the more stringent emissions standards that went into effect in 2003. As such, in October 2003, we announced our intention to retire those units. In November 2003, given that no bids were received in the auction process on our offer of 824 MW of generation to the market in 2004 in connection with our FERC settlement agreement, we announced our decision to mothball four units in California through March 2005, at a minimum, pending results of the auction process for the 12-month period beginning April 1, 2005. The following

units will be mothballed: Etiwanda Units 3 and 4 (640 MW); Mandalay Unit 3 (130 MW); and Ellwood (54 MW). In response to California's energy crisis of 2000 and 2001, the FERC and the Cal ISO have instituted energy price caps, formerly set below $100 per MWh and currently set at $250 per MWh, and must-offer requirements affecting all merchant generators in California. Furthermore, the Western region has seen significant new generation capacity become operational as well as a return to more normal hydro and temperature conditions. The impact of these regulatory and market changes has been to significantly lower power prices and spark spreads in the West region. The Cal ISO has a department of market analysis that acts as its internal market monitor. The department of market analysis monitors the efficiency and effectiveness of the ancillary services, congestion management and real-time energy markets. In performing these functions, the department of market analysis develops and publishes market performance indices, investigates potential anti-competitive behavior by market participants, recommends changes in market rules and protocols, and prepares periodic reports for submission to the FERC and other agencies. In addition to the department of market analysis, the Cal ISO also has a market surveillance committee that acts as its external advisor. The market surveillance committee works closely with the department of market analysis and has the independent authority to suggest changes in Cal ISO Protocols or recommend sanctions or penalties directly to the Cal ISO governing board. The market surveillance committee periodically produces written reports containing its analyses and recommendations, which are made available to the public subject to restrictions on confidential information. The Cal ISO has initiated, at the FERC's direction, automated mitigation 56 procedures when any zonal clearing price for balancing energy exceeds $91.87 per MWh with any resulting zonal clearing price subject to the price cap of $250 per MWh. The automated mitigation procedures are only applied to bids that exceed certain reference prices and that would significantly increase the market price. However, in February 2003, the Cal ISO stated that it intends to appeal the FERC's decision regarding the application of automated mitigation procedures to local market power situations. While the FERC had adopted similar thresholds for both local and system market power, the Cal ISO is seeking to have a more restrictive procedure applied to local market power. A number of initiatives currently under consideration could materially impact our California operations. These initiatives include: - a California law directing the CPUC to seek approval from the FERC to allow the CPUC to enforce state-established maintenance and operation standards of our California plants; - implementation of a CPUC procurement process directing California utilities to procure, on a forward basis, electricity and capacity to serve the demand on their systems; - efforts by the Cal ISO to redesign the spot markets in California; and - the effect of the FERC's SMD effort, including its impact on the FERC approved western RTOs. In Nevada and Arizona, there is presently no RTO in place to manage the transmission systems or to operate energy markets, although the utilities in both states are participating in the development of RTOs. The West Connect RTO, which includes Arizona, and the RTO West, which includes Nevada, have both been approved by the FERC and are in process of developing operating rules and tariffs. Both RTOs are expected to be operational and assume control over transmission of facilities of participating utilities within the next several years. The FERC has also approved the establishment of market monitoring organizations as part of RTO West and West Connect RTO. The FERC is encouraging the RTOs to coordinate in the development of a region-wide market monitoring function. Additionally, in Nevada and Arizona, state-level regulatory initiatives may impact competition in the electric sector. In Nevada, the state legislature has passed legislation prohibiting the state's investor-owned utilities from divesting generation. Nevada also passed legislation and adopted regulations allowing large commercial and industrial customers to seek competitive alternatives to utility generation. In Arizona, proceedings are pending before the Arizona Corporate Commission that would require the state's investor owned utilities to seek competitive supply offers to serve 2,500 to 3,200 MW of local system demand. LONG-TERM PURCHASE AND SALE AGREEMENTS In the ordinary course of business, and as part of our hedging strategy, we enter into long-term sales arrangements for electric energy, capacity and ancillary services, as well as long-term purchase arrangements. For information regarding our long-term fuel supply contracts, purchase power and electric capacity contracts and commitments, electric energy and electric sale contracts and tolling arrangements, see note 14(e) to our consolidated financial statements incorporated by reference herein. For information regarding our hedging strategy relating to such long-term commitments, see "Risk Factors -- Risks Related to Our Wholesale Energy Operations". COMMERCIAL OPERATIONS -- MARKETING, TRADING, POWER ORIGINATION AND RISK MANAGEMENT Strategy. Our domestic commercial business seeks to optimize our physical asset positions consisting of our power generation asset portfolio, pipeline transportation capacity positions, pipeline storage positions and fuel positions and provides risk management services for our asset positions. We perform these functions through procurement, marketing and

hedging activities for power, fuels and other energy related commodities. With the downturn in the industry, the decline in market liquidity, and our liquidity capital constraints, the principal function of our commercial activities has shifted to optimizing our assets. Previous large volume activities primarily involving risk management to customers, gas marketing to third parties and trading of power and gas have been significantly reduced, and in some cases eliminated. As a result, we reduced our workforce and support staff. In March 2003, we decided to exit our proprietary 57 trading activities and liquidate, to the extent practicable, our proprietary positions. Although we have exited our proprietary trading activities, we have legacy positions, which will be closed as economically feasible or in accordance with their terms. We will continue to engage in marketing and hedging activities related to our electric generating facilities, pipeline transportation capacity positions, pipeline storage positions and fuel positions of our wholesale energy segment and energy supply costs related to our retail energy segment. Asset Optimization and Risk Management. Our domestic commercial businesses complement our merchant power generation business by providing a full range of energy management services. These services focus on two core functions, optimizing our physical asset position and providing risk management services for our portfolio. To perform these functions, we trade, market and hedge electric energy, capacity and ancillary services, as well as manage the purchase and sale of fuels and emission allowances. Asset optimization is maximizing the financial performance of an asset position. Our commercial groups optimize our assets by employing different products (e.g., on-peak power), geographic markets (e.g., buying from and selling into adjacent markets), fuel types (e.g., burning oil rather than natural gas at our fuel switching capable plants) and transaction terms (spot to multi-year term). Risk management services focus on managing the performance risk and price risk (of both purchases and sales) inherent in the asset position. The ultimate purpose of this activity is to identify the risks and reduce the volatility they could cause in our financial performance. Our commercial groups assist our risk control personnel and management in the identification of these risks and execute the transactions necessary to achieve this goal. As an example of this, we generally seek to sell a portion of the capacity of our domestic facilities under fixed-price sale contracts (energy or capacity) or contracts to sell energy at a predetermined multiple of fuel prices. Generally, we also seek to hedge our fuel needs associated with our forward power sale obligations. These power sales and fuel purchases provide us with certainty as to a portion of our margins. With respect to performance risk, we also take into account plant operational constraints and operating risk in making these determinations. Physical power and services from our assets portfolios are sold in real-time, hour-ahead, day-ahead, or multi-month or multi-year term markets. For purposes of supplying our generation, we purchase fuel from a variety of suppliers under daily, monthly and term, variable-load and base-load contracts that include either market-based or fixed pricing provisions. We use derivative instruments to execute these transactions. In addition, as part of our efforts to commercialize our asset portfolio and provide risk management services, we arrange for, schedule and balance the transportation rights of the natural gas from the supply receipt point to our plants. We generally obtain pipeline transportation to perform this function. Accordingly, we use a variety of transportation arrangements including short-term and long-term firm and interruptible agreements with intrastate and interstate pipelines. We also utilize brokered firm transportation agreements when dealing on the interstate pipeline system. In the normal course of business, it is common for us to hedge the risk of pipeline transportation expenses through "basis swap" transactions. We also enter into various short-term and long-term firm and interruptible agreements for natural gas storage in order to offer peak delivery services to satisfy electric generating demands. Natural gas storage capacity allows us to better manage the unpredictable daily or seasonal imbalances between supply volumes and demand levels. In support of our optimization and risk management effects, our power origination group, working closely with our other commercial groups, focuses on developing customized near-term products and long-term contracts. These are designed and negotiated on a case-by-case basis to meet the specific energy requirements of our customers. The target customer group generally includes investor-owned utilities, municipalities, cooperatives and other companies that serve end users. Risk Management Services to Customers. In addition to optimizing our power asset portfolio, our trading and marketing businesses provide risk management services to a variety of customers, which 58 include natural gas distribution companies, electric utilities, municipalities, cooperatives, power generators, marketers or other retail energy providers, aggregators and large volume industrial customers. Risk management services primarily focus on mitigating customers' commodity price exposure and providing firm delivery services. To provide these services to these customers, we utilize the same skills and physical and financial instruments used to optimize and manage the risks of our asset portfolio. See below for the discussion of our decision to exit proprietary trading in March 2003. Proprietary Trading. Our commercial business obtains proprietary market knowledge and develops proprietary

analysis through its efforts to manage our asset portfolio and provide risk management services to our customers. This enabled our commercial groups to take selective market positions, typically on a short-term basis, in power, fuel and other energy related commodities. Our commercial groups used derivative instruments to execute these transactions. In March 2003, we decided to exit our proprietary trading activities and liquidate, to the extent practicable, our proprietary positions. Although we have exited our proprietary trading activities, we have legacy positions, which will be closed as economically feasible or in accordance with their terms. We will continue to engage in marketing and hedging activities related to our electric generating facilities, pipeline transportation capacity positions, pipeline storage positions and fuel positions of our wholesale energy segment and energy supply costs related to our retail energy segment. Risk Management Controls. For information regarding our risk management structure and policies relating to our trading and marketing operations, see "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Trading and Marketing and Non-Trading Operations" and "Quantitative and Qualitative Disclosures About Market Risk" for the three years ended December 31, 2000, 2001 and 2002 and for the nine months ended September 30, 2002 and 2003, incorporated by reference herein. REGULATION Electricity. The FERC has exclusive rate-making jurisdiction over wholesale sales of electricity and the transmission of electricity in interstate commerce by "public utilities." Public utilities that are subject to the FERC's jurisdiction must file rates with the FERC applicable to their wholesale sales or transmission of electricity in interstate commerce. All of our public utility subsidiaries sell electric energy, capacity and ancillary services at wholesale and are public utilities with the exception of those facilities that are classified as qualifying facilities and not regulated as public utilities. The FERC has authorized all of our generation subsidiaries to sell electricity and related services at wholesale market-based rates. In its orders authorizing market-based rates, the FERC also has granted certain of these subsidiaries waivers of many of the accounting, record keeping and reporting requirements that are imposed on public utilities with cost-based rate schedules. The FERC's orders accepting the market-based rate schedules filed by our subsidiaries or their predecessors, as is customary with such orders, reserve the right to revoke or limit our market-based rate authority if the FERC subsequently determines that any of our affiliates possess and exercise market power. If the FERC were to revoke or limit our market-based rate authority, we would have to file, and obtain the FERC's acceptance of, cost-based rate schedules for all or some of our sales. In addition, the loss of market-based rate authority could subject us to the accounting, record keeping and reporting requirements that the FERC imposes on public utilities with cost-based rate schedules. In October 2003, the FERC issued an order approving an agreement with certain subsidiaries in our wholesale energy segment to settle inquiries, investigations, and proceedings instituted by the FERC in connection with the FERC's ongoing review of western energy markets. Under the terms of the settlement, we retain the ability to make sales of power at market-based rates. The FERC has issued a notice of proposed rulemaking describing its intention to standardize electricity markets and eliminate continuing discrimination in transmission service, with a proposed implementation date of September 2004. The goal of SMD is to promote a more economically efficient market design that will lower delivered energy costs, maintain reliability, mitigate market power and 59 increase customer choice options. SMD proposes to eliminate discrimination in transmission service by requiring that all users of the grid take service pursuant to the same rates and terms and conditions of service, thus eliminating certain existing preferences enjoyed by some classes of customers. In addition, transmission-owning public utilities will be required to turn over the operation of their transmission systems to an independent transmission provider. SMD also seeks to establish day-ahead and real-time electric energy and ancillary service markets modeled after the energy markets that currently exist in the Northeast. Finally, SMD proposes to establish a capacity obligation on load serving entities and establishes nationwide price mitigation measures. However, there is substantial controversy surrounding the development of SMD, and it is unclear whether SMD would be implemented and what form it would take. The FERC also continues to promote the formation of large RTOs and has issued numerous orders on the various RTO proposals. The FERC's goal is to promote the formation of a robust wholesale market for electricity. While RTO participation by public utilities is voluntary, the overwhelming majority of the FERC jurisdictional utilities have indicated that they will join the proposed RTO for their region. At this time there are approximately nine proposed RTOs covering the vast majority of the continental United States. In addition, large portions of the nation's transmission system are currently operated by an independent entity. The Midwest grid is operated by the MISO and the Northeast grid is operated by three separate independent entities: New England ISO, NYISO and PJM. The ERCOT ISO independently operates the Texas grid. MISO and PJM have received RTO status from the FERC. Commercial Activities. As a gas marketer, we make sales of natural gas in interstate commerce and

the FERC has issued us a blanket certificate, but the FERC does not otherwise regulate the rates, terms or conditions of these gas sales. Hydroelectric Facilities. Our hydroelectric generation facilities are subject to the FERC's exclusive authority to license non-federal hydroelectric projects located on navigable waterways and federal lands. These FERC licenses must be renewed periodically and can include conditions on operation of the project at issue. SEC. A company engaged exclusively in the business of owning and/or operating facilities used for the generation of electric energy exclusively for sale at wholesale and selling electric energy at wholesale may be exempted from regulation under the PUHCA as an exempt wholesale generator. Our electric generation subsidiaries have received determinations of exempt wholesale generator status from the FERC or are companies that own or operate qualifying facilities. If we lose our exempt wholesale generator status or qualifying facility status, we would have to restructure our organization or risk being subjected to further regulation by the SEC. COMPETITION For a discussion of competitive factors affecting our wholesale energy segment, see "Risk Factors -- Risks Related to Our Wholesale Energy Operations". OTHER OPERATIONS Our other operations business segment includes the following: - our venture capital investment portfolio; and - unallocated corporate costs. We are currently managing our venture capital investment portfolio and do not have plans to expand this business. As of September 30, 2003, the net book value of these investments was $35 million. 60 ENVIRONMENTAL MATTERS GENERAL We are subject to numerous federal, state and local requirements relating to the protection of the environment and the safety and health of personnel and the public. These requirements relate to a broad range of our activities, including the discharge of compounds into air, water, and soil, the proper handling of solid, hazardous, and toxic materials and waste, noise, and safety and health standards applicable to the workplace. In order to comply with these requirements, we will, as necessary, spend substantial funds to construct, modify and retrofit equipment, and clean up or decommission disposal or fuel storage areas and other locations as necessary. We anticipate spending approximately $246 million for the remainder of 2003 through 2007 for such environmental compliance and remediation. As of September 30, 2003, we have accrued $44 million related to these remediation costs. If we do not comply with environmental requirements that apply to our operations, regulatory agencies could seek to impose on us civil, administrative and/or criminal liabilities as well as seek to curtail our operations. Under some statutes, private parties could also seek to impose civil fines or liabilities for property damage, personal injury and possibly other costs. AIR QUALITY MATTERS As part of the 1990 amendments to the Federal Clean Air Act, additional requirements for the emission of nitrogen oxide, a product of the combustion process associated with power generation, have been developed. This compound is a precursor to ozone, fine particulate matter and regional haze. While new requirements have been developed, it is possible that additional requirements could be required in the future to provide for the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and visibility standards. These requirements affect our power generating facilities in the United States. The EPA has announced its determination to regulate hazardous air pollutants, including mercury, from coal-fired and oil-fired steam electric generating facilities under Section 112 of the Clean Air Act. The EPA plans to develop maximum achievable control technology (MACT) standards for these types of generating facilities as well as for turbines, engines and industrial boilers. The rulemaking for coal and oil-fired steam electric generating facilities must be completed by December 2004. Compliance with the rules will be required within three years thereafter. The MACT standards that will be applicable to coal- and oil-fired facilities cannot be predicted at this time and may adversely impact our operations. The MACT rule for combustion turbines was issued in August 2003 and there is no impact on existing facilities. The MACT rulemaking for engines and industrial boilers is expected to be completed in early 2004. Based on the rules currently proposed for engines and industrial boilers, we do not anticipate a material adverse impact on our financial condition, results of operations and cash flows. In 1998, the United States became a signatory to the United Nations Framework Convention on Climate Change or "Kyoto Protocol". The Kyoto Protocol calls for developed nations to reduce their emissions of greenhouse gases. Carbon dioxide, which is a major byproduct of the combustion of fossil fuel, is considered to be a greenhouse gas. If the United States Senate ultimately ratifies the Kyoto Protocol, any resulting limitations on power plant carbon dioxide emissions could have a material adverse impact on all fossil fuel fired facilities, including those belonging to us. The EPA is conducting a nationwide investigation regarding the historical compliance of coal-fueled electric generating stations with various permitting requirements of the Clean Air Act. Specifically, the EPA and the United States Department of Justice have initiated formal enforcement actions and litigation against several other utility companies that operate these stations, alleging that these companies modified their facilities without proper pre-construction permit authority. Since June 1998, six of our coal-fired facilities have received requests for

information related to work activities conducted at those sites, as have two of our recently acquired Orion Power facilities. The EPA has not filed an enforcement action or initiated litigation in connection with these facilities at this time. Nevertheless, any litigation, if pursued 61 successfully by the EPA, could accelerate the timing of emission reductions currently contemplated for the facilities and result in the imposition of penalties. In addition to the EPA's requests for information, the New Jersey Department of Environmental Protection (NJDEP) recently requested a copy of all correspondence relating to the EPA requests for information. We have recently signed a confidentiality agreement with the NJDEP relative to the information they have received from the EPA. To date, NJDEP has taken no further legal action in connection with this request for one of the six stations. In February 2001, the United States Supreme Court upheld previously adopted EPA ambient air quality standards for fine particulate matter and ozone. While attaining these new standards may ultimately require expenditures for air quality control system upgrades for our facilities, regulations addressing affected sources and required controls are not expected until after 2005. Consequently, it is not possible to determine the impact on our operations at this time. In February 2002, the White House announced its "Clear Skies Initiative". The proposal is aimed at long-term reductions of multiple pollutants produced from fossil fuel-fired power plants. Reductions averaging 70% are targeted for sulfur dioxide, nitrogen oxide and mercury. If approved by the United States Congress, this program would entail a market-based approach using emission allowances; compliance with emission limits would be phased in over a period from 2008 to 2018. The Clear Skies Initiative has the potential to revise or eliminate several of the programs discussed above, including the maximum achievable control technology standards, the coal-fired utility enforcement initiative and fine particulate controls. In addition, a voluntary program for reducing greenhouse gas emissions was proposed as an alternative to the Kyoto Protocol. Fossil fuel-fired power plants in the United States would be affected by the adoption of this program, or other legislation that may be enacted by the United States Congress addressing similar issues. Such programs would require compliance to be achieved by the installation of pollution controls, the purchase of emission allowances or curtailment of operations. In April 2003, the Group Against Smog and Pollution (GASP), a private citizens organization, notified the Allegheny County Health Department (ACHD) and Pennsylvania Department of Environmental Protection (PDEP) of GASP's intent to initiate an action under the citizens' suit provisions of the state and federal clean air laws to compel Orion Power to comply with ACHD air quality regulations at one of its plants. Under applicable PDEP environmental regulations, potential penalties in an action for past violations could exceed $100,000. We are currently in discussions with GASP in an effort to resolve the issue, but the outcome cannot be predicted at this time. FERC Last year the FERC granted ten new licenses for 23 of our hydroelectric facilities in New York. (For additional information related to the FERC, see "Risk Factors -- Risks Related to Our Wholesale Energy Operations"). The FERC imposed conditions in such licenses which will require us to spend approximately $21 million in capital expenditures in order to comply with such conditions. Applications for three new FERC licenses remain pending for five of our hydroelectric facilities in New York. Conditions which may be imposed in such additional new licenses may also result in capital expenditures. In the course of the FERC licensing proceedings various agencies have requested increased flow rates downstream of the dams in order to enhance fish habitats and for other purposes. The FERC has imposed conditions in the new licenses to increase such flow rates and we expect that the FERC will also impose similar conditions in the licenses for which applications remain pending. Increased flow rates may affect revenues for these facilities due to the loss of use of water for power generation. However, all of the minimum flow requirements and other environmental conditions in the respective licenses are the result of settlement agreements negotiated by us and our predecessors and settlement agreements are being pursued for the remaining pending license applications. Therefore, we do not expect such lost revenues to be material to the economic viability of such facilities. 62 WATER QUALITY MATTERS As a result of litigation and technological improvements, state and federal efforts toward implementing the total maximum daily load provisions of the Clean Water Act have substantially increased in recent years. The establishment of total maximum daily loads to restore water bodies currently designated as impaired may result in more stringent discharge limitations for our facilities. Compliance with such limitations may require our facilities to install additional water treatment systems, modify operational practices or implement other wastewater control measures, the costs of which cannot be estimated at this time. In April 2002, the EPA proposed rules under Section 316(b) of the Clean Water Act relating to the design and operation of cooling water intake structures. This proposal is the second of three current phases of rulemaking dealing with Section 316(b) and generally would affect existing facilities that use significant quantities of cooling water. Under the amended court deadline, the EPA is to issue final rules for these Phase II facilities by February 2004. While the requirements of the

final rule cannot be predicted at this time, there are significant potential implications under the EPA proposal for our generating facilities. Under a separate consent order issued by the New York State Department of Environmental Conservation (NYSDEC) in 2000, Orion Power is required to evaluate certain technical changes to modify the intake cooling system of one of its plants. Orion Power and the NYSDEC will discuss the technical changes to be implemented. Depending on the outcome of these discussions, including the form of technology ultimately selected, we estimate that capital expenditures necessary to comply with the order could meet or exceed $65 million. We expect to begin construction on a portion of the cooling water intake in 2004. EPA and states periodically review and revise water quality criteria for parameters such as copper, selenium and temperature that can be associated with our facility discharges. For certain parameters, the water quality criteria have been established at levels at or below the current analytical detection limits. Advancing technology is anticipated to allow the detection of such parameters at increasingly lower levels. As a result, more stringent water quality criteria and lower analytical detection limits could affect facility compliance requirements. This may require our facilities to install additional water treatment systems, modify operational practices or implement other wastewater control measures, the costs of which cannot be estimated at this time. LIABILITY FOR PREEXISTING CONDITIONS AND REMEDIATIONS In connection with our acquisition of facilities, we, with a few exceptions, assumed liability for preexisting conditions, including some ongoing remediations. Funds for carrying out identified remediations have been included in our planning for future funding requirements, and we are not currently aware of any environmental condition at any of our facilities that we expect to have a material adverse effect on our financial position, results of operations or cash flows. We are responsible for the costs of closing a number of active ash and related waste disposal sites associated with certain of our facilities, located in Pennsylvania. A number of such sites have already been closed (for which we are responsible for long-term maintenance costs), some will be closed within the next five years, and the remainder are anticipated to be closed thereafter. We have estimated that the total cost of our share to close these active sites (including future maintenance costs at closed sites) is approximately $29 million with $6 million estimated in years 2003 through 2007. Under the New Jersey Industrial Site Recovery Act, owners and operators of industrial properties are responsible for performing all necessary remediation at a facility prior to the closing of the facility and the termination of operations, or ensuring that in connection with the transfer of such a facility the property will be remediated after the closing of the facility and the termination of operations. We have responsibility for costs relating to the transfer of four New Jersey properties we purchased from Sithe Energies, Inc. We estimate that the remaining costs to fulfill our obligations under the act will be approximately $8 million, which we expect to pay out through 2007. However, these remedial activities are 63 still in the early stage. Following further investigation the scope of the necessary remedial work could increase and we could, as a result, incur greater costs. One of our Florida generation facilities discharges wastewater to percolation ponds, which in turn, percolate into the groundwater. Elevated levels of vanadium and sodium have been detected in groundwater monitoring wells. A noncompliance letter was received in 1999 from the Florida Department of Environmental Protection. In response to that letter, a study to evaluate the cause of the elevated constituents was undertaken and operational procedures were modified. At this time, if remediation is required, the cost, if any, is not anticipated to be material. Our subsidiary, Orion Power, is liable under the terms of a consent order issued in 2000 with NYSDEC for past releases of petroleum and other substances at two of its generation facilities. Based on investigations by third-party consultants and current engineering assessments, we have developed remediation plans for both facilities. As of September 30, 2003, we have recorded the estimated liability for the remediation costs of $7 million, which we expect to pay out through 2006. As a result of their age, many of our facilities contain significant amounts of asbestos insulation, other asbestos containing materials, as well as lead-based paint. Existing state and federal rules require the proper management and disposal of these potentially toxic materials. We have developed a management plan that includes proper maintenance of existing non-friable asbestos installations, and removal and abatement of asbestos containing materials where necessary because of maintenance, repairs, replacement or damage to the asbestos itself. We have planned for the proper management, abatement and disposal of asbestos and lead-based paint at our facilities in our financial planning. Under CERCLA and similar state laws, owners and operators of facilities from or at which there has been a release or threatened release of hazardous substances, together with those who have transported or arranged for the disposal of those substances, are liable for the costs of responding to that release or threatened release, and the restoration of natural resources damaged by any such release. We are not aware of any liabilities under the act that would have a material adverse effect on our results of operations, financial position or cash flows. LEGAL PROCEEDINGS On December 1, 2003 Enron North America

Corp. (ENA), a subsidiary of Enron Corp., filed a complaint in the United States Bankruptcy Court for the Southern District of New York seeking recovery of $85 million from Reliant Energy Services. ENA alleges that a series of related natural gas financial swap transactions executed by and among ENA, Reliant Energy Services and the Bank of Montreal on November 5, 2001, resulted in setoffs against debts with ENA which should be invalidated under the preference, setoff and fraudulent conveyance provisions of the Bankruptcy Code. ENA has also sued the Bank of Montreal and is seeking recovery of $80 million. When we are formally served with the notice of the complaint, we intend to vigorously contest the recovery sought. The outcome of this litigation cannot be predicted at this time. For a discussion regarding additional legal proceedings affecting us, see note 13(a) to our interim financial statements and our Current Report on Form 8-K dated November 26, 2003, each of which are incorporated by reference herein. 64 EMPLOYEES As of December 10, 2003, we had 5,286 full-time employees. Of these employees, 1,442 are covered by collective bargaining agreements. The collective bargaining agreements expire on various dates until May 14, 2007. The following table sets forth the number of our employees by business segment as of December 10, 2003: SEGMENT NUMBER ------- ------ Retail energy..... 1,784 Wholesale energy..... 2,924 Other operations..... 578 ----- Total..... 5,286 ===== PROPERTIES During 2003, we relocated our corporate offices to approximately 520,000 square feet of leased space in downtown Houston. The lease term expires in 2018, subject to two five-year renewal options. In addition to the corporate headquarters, we lease another 400,000 square feet of office space in the greater Houston area with various lease terms. In addition to office space in Houston, we lease or own real property and facilities around the country. These properties support a combination of retail and wholesale activities. Our principal generation facilities are described under "-- Wholesale Energy." We believe we have satisfactory title to our facilities in accordance with standards generally accepted in the electric power industry, subject to exceptions, which, in our opinion, would not have a material adverse effect on the use or value of the facilities. 65 MANAGEMENT DIRECTORS AND EXECUTIVE OFFICERS Our directors and executive officers, including their ages as of December 5, 2003, are as follows: NAME AGE PRESENT POSITION ---- --- ---------- Joel V. Staff..... 59 Chairman and Chief Executive Officer Robert W. Harvey..... 48 Executive Vice President and Group President -- Wholesale Business Mark M. Jacobs..... 41 Executive Vice President and Chief Financial Officer Jerry J. Langdon..... 51 Executive Vice President and Chief Administrative Officer Michael L. Jines..... 45 Senior Vice President, General Counsel and Corporate Secretary Thomas C. Livengood..... 48 Vice President and Controller Laree E. Perez..... 50 Director William L. Transier..... 49 Director E. William Barnett..... 70 Director Donald J. Breeding..... 68 Director Kirbyjon H. Caldwell..... 50 Director Steven L. Miller..... 58 Director JOEL V. STAFF is our Chairman and Chief Executive Officer. Mr. Staff was appointed Chairman and Chief Executive Officer in April 2003. Until May 2002, he was with National-Oilwell, Inc., where he served as chairman, president and chief executive officer from July 1993 until May 2001 and as executive chairman from May 2001 until May 2002. Previously, Mr. Staff spent 17 years with Baker Hughes, Inc. where he held various financial and general management positions, including senior vice president of the parent company and president of both the drilling and production groups. Mr. Staff serves on the board of directors of National-Oilwell, Inc. where he is a member of its executive committee and Ensco International, Incorporated, where he is a member of its audit committee. ROBERT W. HARVEY is our Executive Vice President and Group President -- Wholesale Business. Prior to being appointed to such position in May 2003, he served as our Executive Vice President and Group President -- Retail Business. Mr. Harvey served as Vice Chairman of CenterPoint from June 1999 until the Distribution. From 1982 to 1999, Mr. Harvey was employed with the Houston office of McKinsey & Co., Inc. He was a director (senior partner) and was the leader of the firm's North American electric power and natural gas practice. MARK M. JACOBS is our Executive Vice President and Chief Financial Officer. Mr. Jacobs served as Executive Vice President and Chief Financial Officer of CenterPoint from July 2002 until the Distribution. From 1989 to 2002, Mr. Jacobs was employed by Goldman, Sachs & Co. He was a Managing Director in the firm's Natural Resources Group. JERRY J. LANGDON has served as our Executive Vice President and Chief Administrative Officer since May 2003. Mr. Langdon served as president of EPGT Texas Pipeline, L.P. from June 2001 until May 2003. He served as the Managing Partner and Chief Operating Officer of CARLANG Partners, L.P. from September 1999 until November 2001 and the President of Republic Gas Corporation from June 1993 until June 2001. In October 1988, Mr. Langdon was appointed by President Reagan to be a Commissioner to the Federal Energy Regulatory Commission, where he served until 1993. He has

served as a director on the Gas Industry Standards Board (now the North American Energy Standards Board) since 1999 and is Chairman of the National Petroleum Council Coordinating Subcommittee. Mr. Langdon has served as an advisory director of Highland Energy Company since 1998, an advisory director of DLJ Global Energy 66 Partners from 1999 until 2000 and a director of Costilla Energy Inc., Quanta Services, Inc. and Midcoast Energy, Inc. at various times from June 1996 to February 2002. MICHAEL L. JINES is our senior vice president, corporate secretary and general counsel. Until mid-2003, he was our deputy general counsel and senior vice president and general counsel of our Wholesale Group. Until the Distribution, Mr. Jines served as deputy general counsel of CenterPoint and senior vice president and general counsel of Reliant Resources' Wholesale Group. He joined CenterPoint in 1982. THOMAS C. LIVENGOOD is our Vice President and Controller. Prior to joining us in August 2002, he served as Executive Vice President and Chief Financial Officer of Carriage Services, Inc., a publicly traded consumer services company, since 1996. From 1991 to 1996, he served as Vice President and Chief Financial Officer of Tenneco Energy Company, a division of Tenneco, Inc. LAREE E. PEREZ has been a Director of Reliant Resources since April 2002. Ms. Perez is an independent financial consultant in Albuquerque, New Mexico with The Medallion Company. From February 1996 until September 2002, she was Vice President of Loomis, Sayles & Company, L.P. Ms. Perez was co-founder, president and chief executive officer of Medallion Investment Company, Inc. from November 1991 until it was acquired by Loomis Sayles in 1996. WILLIAM L. TRANSIER has been a Director of Reliant Resources since December 2002. Mr. Transier served as executive vice president and chief financial officer of Ocean Energy, Inc. from March 1999 until April 2003. Mr. Transier has served as co-chief executive officer of North Sea New Ventures, LLC since October 2003. From September 1998 to March 1999, he served as executive vice president and chief financial officer of Seagull Energy Corporation. From May 1996 to September 1998, he served as senior vice president and chief financial officer of Seagull Energy Corporation. Mr. Transier is also a director of Cal Dive International, Inc. and chairman of its audit committee. E. WILLIAM BARNETT has been a Director of Reliant Resources since October 2002. Mr. Barnett is a retired partner and currently senior counsel with Baker Botts LLP. He began practicing law with Baker Botts in 1958 and served as managing partner from 1984 through the end of 1997. He serves on the board of directors of numerous educational, health care and community organizations including chairman of the board of trustees of Rice University and life trustee of The University of Texas Law School Foundation. DONALD J. BREEDING has been a Director of Reliant Resources since October 2002. Mr. Breeding has been president and chief executive officer of Airline Management, LLC, engaged in aviation and airline consulting, since 1997. From 1992 to 1997, he was president and chief executive officer of Continental Micronesia, a majority-owned subsidiary of Continental Airlines. From 1988 to 1992, he was senior vice president of operations for Continental Airlines with responsibility for all flying operations activities of the company and responsibility for Continental Express. Mr. Breeding serves as a member of the board of directors of Pinnacle Airlines, Inc. and Miami Air International. KIRBYJON H. CALDWELL has been a Director of Reliant Resources since August 2003. Reverend Caldwell has been the senior pastor of Windsor Village United Methodist Church since June 1982. Reverend Caldwell has served as a director of Continental Airlines, Inc. since 1999. He also serves on the board of directors of numerous corporate, educational, health care and community organizations, including J.P. Morgan Chase Bank Houston, The Greater Houston Partnership, Memorial Hermann Health Care System and Baylor College of Medicine. STEVEN L. MILLER has been a Director of Reliant Resources since August 2003. Mr. Miller is chairman and president of SLM Discovery Ventures, Inc., engaged in commercial ventures in support of volunteerism, social outreach, and higher education and academic achievement. He is also chairman of Momentum Bio Ventures, Inc., a venture capital and management services company focused on biotechnology and life sciences opportunities in southeast Texas. Prior to his retirement in September 2002, Mr. Miller served as chairman of the board of directors, president and chief executive officer of Shell Oil Company. Mr. Miller serves as a director of Applied Materials, Inc. 67 DESCRIPTION OF NOTES RRI issued the notes under an indenture, dated as of June 24, 2003, between itself and Wilmington Trust Company, as trustee, in a private transaction that was not subject to the registration requirements of the Securities Act. The terms of the notes include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended. The following description is a summary of the material provisions of the indenture and the registration rights agreement. It does not restate those agreements in their entirety. We urge you to read the indenture and the registration rights agreement because they, and not this description, define your rights as holders of the notes. Copies of the indenture and the registration rights agreement have been filed as exhibits to the registration statement of which this prospectus is a part. The registered holder of a note will be treated

as the owner of it for all purposes. Only registered holders will have rights under the indenture. In this description, when we refer to "RRI," "we," "our" or "us," we are referring to Reliant Resources, Inc. and not any of its current and future subsidiaries, unless the context otherwise requires. BRIEF DESCRIPTION OF THE NOTES The notes are limited to $275,000,000 in aggregate principal amount. The notes will mature on August 15, 2010, and will be payable at a price of 100% of the principal amount of the notes. The notes will bear interest at the interest rate of 5.00% per year from June 24, 2003. We will pay interest semi-annually on February 15 and August 15 of each year, commencing on August 15, 2003. The notes are general unsecured obligations of RRI and are subordinated to all of our current and future senior debt, and are pari passu in right of payment with any future senior subordinated indebtedness of RRI. The notes are also effectively subordinated in right of payment to all indebtedness and other liabilities, including trade payables, of our subsidiaries. Neither we nor our subsidiaries are restricted from incurring additional indebtedness or providing guarantees of indebtedness under the indenture. The indenture does not impose any financial or similar covenants on us or our subsidiaries. All future indebtedness of RRI will be treated as senior to these notes unless that future indebtedness states that it is not senior to these notes. You may convert the notes into shares of our common stock initially at the conversion rate of 104.8108 shares of common stock per each $1,000 principal amount of notes, subject to adjustment in certain circumstances, at any time before the close of business on the maturity date, unless the notes have been previously redeemed or repurchased. Holders of notes called for redemption or submitted for repurchase upon a change in control will be entitled to convert the notes up to and including the close of business on the business day immediately preceding the date fixed for redemption or repurchase, as the case may be. The conversion rate may be adjusted as described below under "-- Conversion Rights." We may redeem the notes at our option at any time on or after August 20, 2008 in whole or in part, if the last reported sale price of our common stock is at least 125% of the then effective conversion price for at least 20 trading days within a period of 30 consecutive trading days ending on the trading day before the date of the redemption notice at the redemption prices set forth below under "-- Optional Redemption by RRI," plus accrued and unpaid interest to, but excluding, the redemption date. We will therefore be required to make at least ten interest payments on the notes before being able to redeem the notes. If we experience a change in control, you will have the right to require us to repurchase your notes as described below under "-- Repurchase at Option of Holders Upon a Change in Control." 68 FORM, DENOMINATION, TRANSFER, EXCHANGE AND BOOK-ENTRY PROCEDURES The notes were issued: - only in fully registered form; - without interest coupons; and - in denominations of $1,000 and multiples of $1,000. The notes are evidenced by one or more global notes, which was deposited with the trustee as custodian for DTC and registered in the name of Cede & Co., as nominee of DTC. The global note issued during the offering of the notes and any notes issued in exchange for the global note are subject to restrictions on transfer and bear a legend regarding such restrictions. The notes that are resold under this prospectus will be represented by a new unrestricted global note. Upon issuance of this global note, DTC will credit the accounts of persons holding through it with the respective principal amounts of the notes represented by the new unrestricted global note. Except as set forth below, record ownership of the global note may be transferred, in whole or in part, only to another nominee of DTC or to a successor of DTC or its nominee. The global note will not be registered in the name of any person, or exchanged for notes that are registered in the name of any person, other than DTC or its nominee unless one of the following occurs: - DTC notifies us that it is unwilling, unable or no longer qualified to continue acting as the depositary for the global note; or - an event of default with respect to the notes represented by the global note has occurred and is continuing; or - we decide to discontinue use of the system of book-entry transfer through DTC or any successor depositary. In those circumstances, DTC will determine in whose names any securities issued in exchange for the global note will be registered. DTC or its nominee is considered the sole owner and holder of the global note for all purposes, and as a result: - you cannot have notes registered in your name if they are represented by the global note; - except as described above, you cannot receive physical certificated notes in exchange for your beneficial interest in the global note; - you will not be considered to be the owner or holder of the global note or any note it represents for any purpose; and - all payments on the global note will be made to DTC or its nominee. The laws of some jurisdictions require that certain kinds of purchasers, such as insurance companies, can only own securities in definitive certificated form. These laws may limit your ability to transfer your beneficial interests in the global note to these types of purchasers. Only institutions, such as a securities broker or dealer, that have accounts with DTC or its nominee (called participants) and persons that may hold beneficial interests through participants can own a beneficial interest in the global note. The only place where the ownership of beneficial interests in the global note will appear and the only way the transfer of those interests can be

made will be on the records kept by DTC (for each participants' interests) and the records kept by those participants (for interests of persons held by participants on their behalf). Secondary trading in bonds and notes of corporate issuers is generally settled in clearinghouse (that is, next-day) funds. In contrast, beneficial interests in global notes usually trade in DTC's same-day funds 69 settlement system, and settle in immediately available funds. We make no representations as to the effect that settlement in immediately available funds will have on trading activity in those beneficial interests. We will make cash payments of interest, principal, redemption price or repurchase price of the global note, as well as any payment of special interest, to the trustee for payment on to Cede & Co., the nominee for DTC, as the registered owner of the global note. We will make these payments by wire transfer of immediately available funds on each payment date. We have been informed that DTC's practice is to credit participants' accounts on the payment date with payments in amounts proportionate to their respective beneficial interests in the notes represented by the global note as shown on DTC's records, unless DTC has reason to believe that it will not receive payment on that payment date. Payments by participants to owners of beneficial interests in notes represented by the global note held through participants will be the responsibility of those participants, as is now the case with securities held for the accounts of customers registered in street name. We will send any redemption or repurchase notices to Cede. We understand that if less than all the notes are being redeemed, DTC's practice is to determine by lot the amount of the holdings of each participant to be redeemed. We also understand that neither DTC nor Cede will consent or vote with respect to the notes. We have been advised that under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns Cede's consenting or voting rights to those participants to whose accounts the notes are credited on the record date identified in a listing attached to the omnibus proxy. Because DTC can only act on behalf of participants, who in turn act on behalf of indirect participants, the ability of a person having a beneficial interest in the principal amount represented by the global note to pledge such interest to persons or entities that do not participate in the DTC book-entry system, or otherwise take actions in respect of that interest, may be affected by the lack of a physical certificate evidencing its interest. DTC has advised us that it will take any action permitted to be taken by a holder of notes (including the presentation of notes for exchange) only at the direction of one or more participants to whose account with DTC interests in the global note are credited, and only in respect of such portion of the principal amount of the notes represented by the global note as to which such participant or participants has or have given such direction. DTC has also advised us as follows: - DTC is a limited purpose trust company organized under the laws of the State of New York, a member of the Federal Reserve System, a clearing corporation within the meaning of the Uniform Commercial Code, as amended, and a clearing agency registered pursuant to the provisions of Section 17A of the Exchange Act; - DTC was created to hold securities for its participants and facilitate the clearance and settlement of securities transactions between participants through electronic book-entry changes in accounts of its participants; - Participants include securities brokers and dealers, banks, trust companies and clearing corporations and may include certain other organizations; - Certain participants, or their representatives, together with other entities, own DTC; and - Indirect access to the DTC system is available to other entities such as banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a participant, either directly or indirectly. The policies and procedures of DTC, which may change periodically, will apply to payments, transfers, exchanges and other matters relating to beneficial interests in the global note. We and the trustee 70 have no responsibility or liability for any aspect of DTC's or any participants' records relating to beneficial interests in the global note, including for payments made on the global note. Further, we and the trustee are not responsible for maintaining, supervising or reviewing any of those records. CONVERSION RIGHTS You have the option to convert any portion of the principal amount of any note that is an integral multiple of $1,000 into shares of our common stock at any time on or prior to the close of business on the maturity date, unless the notes have been previously redeemed or repurchased. The initial conversion rate is equal to 104.8108 shares per $1,000 in principal amount of notes, as shown on the cover page of this prospectus. The conversion rate is equivalent to a conversion price of approximately $9.54 per share. The conversion rate is subject to adjustment as described below. Your right to convert a note called for redemption or delivered for repurchase will terminate at the close of business on the business day immediately preceding the redemption date or repurchase date for that note, unless we default in making the payment due upon redemption or repurchase. You may convert all or part of any note by delivering the note at the office or agency of the trustee in the Borough of Manhattan, The City of New York, accompanied by a duly signed and completed conversion notice, a copy of which may be obtained from the trustee. The conversion date will be the date on which the note and the duly signed and completed conversion notice are so

delivered. Beneficial owners of an interest in a global security may exercise their right of conversion pursuant to DTC's conversion program. This notice of conversion can be obtained at the office of the conversion agent. The conversion date will be the date on which the note and the duly signed and completed notice of conversion are delivered. As promptly as practicable on or after the conversion date, we will issue and deliver to the trustee a certificate or certificates for the number of full shares of our common stock issuable upon conversion, together with a cash payment in lieu of any fraction of a share. The certificate or certificates will then be sent by the trustee to the conversion agent for delivery to the holders. The shares of our common stock issuable upon conversion of the notes will be fully paid and nonassessable and will be of the same class as the shares of our common stock that are currently outstanding. If you surrender a note for conversion on a date that is not an interest payment date, you will not be entitled to receive any interest for the period from the immediately preceding interest payment date to the conversion date, except as described below in this paragraph. However, if you are a holder of a note on a regular record date, including a note surrendered for conversion after the regular record date, you will receive the interest payable on such note on the next succeeding interest payment date. Accordingly, to correct for the resulting overpayment of interest, any note surrendered for conversion during the period from the close of business on a regular record date to the opening of business on the next succeeding interest payment date must be accompanied by payment of an amount equal to the interest payable on such interest payment date on the principal amount of notes being surrendered for conversion. However, you will not be required to make that payment if you are converting a note, or a portion of a note, that we have called for redemption, or that you are entitled to require us to repurchase from you upon a change in control, if your conversion right would terminate because of the redemption or repurchase between the regular record date and the close of business on the next succeeding interest payment date. No other payment or adjustment for interest, or for any dividends in respect of our common stock, will be made upon conversion. Holders of our common stock issued upon conversion will not be entitled to receive any dividends payable to holders of our common stock as of any record time or date before the close of business on the conversion date. We will not issue fractional shares upon conversion. Instead, we will pay cash for such fractional shares based on the market price of our common stock at the close of business on the conversion date. You will not be required to pay any taxes or duties relating to the issue or delivery of our common stock on conversion but you will be required to pay any tax or duty relating to any transfer involved in the issue or delivery of our common stock in a name other than that of the holder of the note. Certificates 71 representing shares of common stock will not be issued or delivered unless all taxes and duties, if any, payable by you have been paid. The conversion rate is subject to adjustment for, among other things: - dividends and other distributions payable in our common stock on shares of our common stock; - the issuance to all holders of our common stock of rights, options or warrants entitling them to subscribe for or purchase our common stock at less than the then current market price of such common stock as of the record date for shareholders entitled to receive such rights, options or warrants, provided that the conversion rate will be readjusted to the extent any of these rights, options or warrants are not exercised prior to their expiration; - subdivisions, combinations and reclassifications of our common stock; - distributions to all holders of our common stock of evidences of our indebtedness, shares of capital stock, cash or assets, including securities, but excluding: - those dividends, distributions, rights, options and warrants referred to above; - dividends or distributions paid exclusively in cash; and - distributions upon mergers or consolidations referred to below; - distributions consisting exclusively of cash (excluding any cash distributed upon a merger or consolidation referred to below) to all holders of common stock in an aggregate amount that, combined together with: - other such all-cash distributions made within the preceding 12 months in respect of which no adjustment has been made; and - any cash and the fair market value of other consideration payable in respect of any tender offer by us or any of our subsidiaries for our common stock concluded within the preceding 12 months in respect of which no adjustment has been made, exceeds 1.0% of our market capitalization (for this purpose being the product of the current market price per share of common stock on the record date for such distribution multiplied by the number of shares of common stock outstanding) on such date; and - the successful completion of a tender offer made by us or any of our subsidiaries for our common stock which involves an aggregate consideration that, together with: - any cash and the fair market value of other consideration payable in a tender offer by us or any of our subsidiaries for common stock expiring within the 12 months preceding the expiration of such tender offer in respect of which no adjustment has been made; and - the aggregate amount of any such all-cash distributions referred to above to all holders of our common stock within the 12 months preceding the expiration of such tender offer in respect of which no adjustments have been made, exceeds 1.0% of our market capitalization (for this purpose being the product

of the current market price per share of common stock as of the last time tenders could have been made pursuant to such tender offer multiplied by the number of shares of common stock outstanding) on the expiration of such tender offer. We will not make any adjustment for any transaction if the holders of the notes actually participate in such transaction on an equal and ratable basis. To the extent that we have a rights plan in effect upon conversion of the notes into common stock, the holder will receive, in addition to the common stock, the rights under the rights plan whether or not the rights have separated from the common stock at the time of conversion, subject to limited exceptions, and no adjustments to the conversion rate will be made, except in limited circumstances. 72 We reserve the right to effect such increases in the conversion rate in addition to those required by the foregoing provisions as we consider to be advisable in order to avoid or diminish any income tax to the holder of common stock resulting from stock distribution. We will not be required to make any adjustment to the conversion rate until the cumulative adjustments amount to 1.0% or more of the conversion rate (except in the case of a cash dividend). We will compute all adjustments to the conversion rate and will give notice by mail to holders of the registered notes of any such adjustments. If we merge or consolidate with another person or sell or transfer all or substantially all of our assets, each note then outstanding will, without the consent of the holder of any note, become convertible only into the kind and amount of securities, cash and other property receivable upon such consolidation, merger, sale or transfer by a holder of the number of shares of common stock into which the note was convertible immediately prior to the merger, consolidation or sale. This calculation will be made based on the assumption that the holder of common stock failed to exercise any rights of election that the holder may have to select a particular type of consideration. The adjustment will not be made for a merger that does not result in any reclassification, conversion, exchange or cancellation of our common stock. We may temporarily increase the conversion rate for any period of at least 20 days if our board of directors determines that the increase would be in our best interest. The board of directors' determination in this regard will be conclusive. We will give holders of notes at least 15 days' notice of such an increase in the conversion rate. Any such increase, however, will not be taken into account for purposes of determining whether the closing price of our common stock exceeds the conversion price by 110% in connection with an event that otherwise would be a change in control as defined below. MERGERS AND SALES OF ASSETS BY RRI We may not, directly or indirectly, consolidate with or merge into any other person or convey, transfer, sell or lease our properties and assets substantially as an entirety to any person, other than to one or more of our subsidiaries, unless: - the person formed by such consolidation or into or with which we are merged or the person to which our properties and assets are so conveyed, transferred, sold or leased, shall be a corporation organized and existing under the laws of the United States, any State within the United States or the District of Columbia and, if we are not the surviving person, the surviving person assumes the payment of the principal of, premium, if any, and interest on the notes (including special interest, if any) and the performance of our other covenants under the indenture pursuant to an agreement reasonably satisfactory to the trustee; provided that if the person formed by or surviving any such consolidation or merger with us is not a corporation, a corporate co-issuer shall also be an obligor with respect to the convertible notes, and - immediately after giving effect to the transaction, no event of default, and no event that, after notice or lapse of time or both, would become an event of default, shall have occurred and be continuing. In addition, we may not, directly or indirectly, lease all or substantially all of our properties or assets, in one or more related transactions to any person, other than to one or more of our subsidiaries. SUBORDINATION The indebtedness evidenced by the notes is subordinated to the extent provided in the indenture to the prior payment in full of all our senior debt (as defined below). In the event of our insolvency, bankruptcy, receivership, liquidation, reorganization, debt restructuring or similar proceeding or liquidation, dissolution or winding up or any assignment for the benefit of creditors or marshalling of assets and liabilities, payments on the notes will be subordinated in right of payment to the prior payment in full in cash of all senior debt. As a result of these subordination provisions, in the event of our liquidation, insolvency or any similar event described above, holders of senior debt may receive more, ratably, and holders of the notes may receive less, ratably, than our other creditors. In the event of any acceleration of 73 the notes because of an event of default, holders of any senior debt would be entitled to payment in full in cash of all senior debt before the holders of notes are entitled to receive any payment or distribution. We are required to promptly notify holders of senior debt if payment of the notes is accelerated because of an event of default. We may also not make payment of principal, interest or other amounts on the notes or redeem or repurchase the notes if any of the following occurs: - a default in the payment of the principal, interest or other amounts on designated senior debt (as defined below) occurs; - any other default on designated senior debt occurs and the maturity of such designated senior debt is accelerated; or -

any other default (other than the ones specified above) occurs and is continuing with respect to designated senior debt that permits holders or their representatives of designated senior debt to accelerate its maturity, and the trustee receives a payment blockage notice from us or some other person permitted to give the payment blockage notice under the indenture. The foregoing prohibitions regarding payments on the notes shall end: - in case of a prohibition based on a payment default or a nonpayment default where the maturity of such designated senior debt is accelerated, when all amounts in respect of such designated senior debt have been paid in full in cash or the default is cured, waived or ceases to exist and any acceleration has been rescinded; and - in case of a prohibition based on a nonpayment default (other than the ones specified above), 179 days after the receipt of the payment blockage notice, unless (1) earlier terminated by the written notice of the person who gave the payment blockage notice, (2) all amounts on the designated senior debt have been paid in full in cash or (3) the default giving rise to the payment blockage notice is cured, waived or ceases to exist, unless the designated senior debt has been accelerated. No new payment blockage period based on a nonpayment default may start unless 360 days have elapsed since the effectiveness of the prior payment blockage notice. No nonpayment default that existed or was continuing on the date of delivery of any payment blockage notice to the trustee may be the basis for a subsequent payment blockage notice, unless such default has been cured or waived for a period of at least 90 days. The subordination provisions will not prevent the occurrence of any event of default under the indenture. If the trustee or any holder receives any payment that should not have been made to it in contravention of subordination provisions before all senior debt is paid in full in cash, then such payment will be held in trust for the holders of senior debt. "designated senior debt" means any and all indebtedness outstanding under our credit agreement and our obligations under any particular senior debt having an aggregate principal amount in excess of $50,000,000 in which the instrument creating or evidencing the same or the assumption or guarantee thereof, or related agreements to which we are a party, expressly provides that such senior debt shall be "designated senior debt" for purposes of the indenture. The instrument, agreement or other document evidencing such designated senior debt may place limitations and conditions on the right of such senior debt to exercise the rights of designated senior debt. "senior debt" means, as to any person: - all indebtedness for money borrowed, for reimbursement of drawings under letters of credit and all hedging obligations unless the instrument under which such indebtedness is incurred expressly provides that it is on a parity with or subordinated in right of payment to the notes; - any and all indebtedness and obligations outstanding under our credit agreement; and - any deferrals, renewals, refinancings, replacements or extensions of any of the above. 74 Notwithstanding anything to the contrary in the preceding, senior debt will not include: - any liability for federal, state, local or other taxes owed or owing by RRI; - any intercompany Indebtedness of RRI to any of its affiliates; or - any trade payables. The notes are structurally subordinated to all indebtedness and other liabilities, including trade payables, of our subsidiaries. Our right to receive any assets of our subsidiaries upon their liquidation or reorganization, and your consequent right to participate in those assets, will be effectively subordinated to the claims of the subsidiary's creditors, including trade creditors, except to the extent that we are recognized as a creditor of such subsidiary. Even in the event that we are recognized as a creditor of one our subsidiaries, our claims would still be subordinate to any security interest in the assets of the subsidiary and any indebtedness of such subsidiary senior to that held by us. As of September 30, 2003, we had approximately $4.4 billion of indebtedness and other liabilities that would have constituted senior debt. Neither we nor our subsidiaries are limited or prohibited from incurring senior debt or any other indebtedness or liabilities under the indenture. We expect from time to time to incur additional indebtedness and other liabilities, including senior debt. We also expect that our subsidiaries may from time to time incur additional indebtedness and other liabilities. OPTIONAL REDEMPTION BY RRI On or after August 20, 2008, we may redeem the notes, in whole or in part, if the last reported sale price of our common stock is at least 125% of the then effective conversion price for at least 20 trading days within a period of 30 consecutive trading days ending on the trading day before the date of the redemption notice at the redemption prices set forth below. If we elect to redeem all or part of the notes, we will give at least 30, but no more than 60, days' prior notice to you. The redemption price, expressed as a percentage of principal amount, is as follows for the following periods: REDEMPTION PERIOD PRICE ------ ---------- Beginning on August 20, 2008 and ending on August 14, 2009..... 101.429% Beginning on August 15, 2009 and ending on August 14, 2010..... 100.714% and thereafter at 100% of the principal amount. In each case, we will pay accrued and unpaid interest (including special interest) to, but excluding, the redemption date. If we do not redeem all of the notes, the trustee will select the notes to be redeemed in principal amounts of $1,000 or whole multiples of $1,000 by lot or on a pro rata basis. If any notes are to be redeemed

in part only, we will issue a new note or notes in principal amount equal to the unredeemed principal portion thereof. If a portion of your notes is selected for partial redemption and you convert a portion of your notes, the converted portion will be deemed to be taken from the portion selected for redemption. No sinking fund is provided for the notes, which means that the indenture does not require us to redeem or retire the notes periodically. PAYMENT AND CONVERSION We will make all payments of principal and interest (including special interest) on the notes by dollar check. If you hold registered notes with a face value greater than $2,000,000, at your request we will make payments of principal or interest to you by wire transfer to an account maintained by you at a bank in The City of New York. Payment of any interest on the notes will be made to the person in whose name the 75 note, or any predecessor note, is registered at the close of business on February 1 or August 1, whether or not a business day, immediately preceding the relevant interest payment date (a "regular record date"). If you hold registered notes with a face value in excess of $2,000,000 and you would like to receive payments by wire transfer, you will be required to provide the trustee with wire transfer instructions at least 15 days prior to the relevant payment date. Payments on any global note registered in the name of DTC or its nominee will be payable by the trustee to DTC or its nominee in its capacity as the registered holder under the indenture. Under the terms of the indenture, we and the trustee will treat the persons in whose names the notes, including any global note, are registered as the owners for the purpose of receiving payments and for all other purposes. Consequently, neither we, the trustee nor any of our agents or the trustee's agents has or will have any responsibility or liability for: - any aspect of DTC's records or any participant's or indirect participant's records relating to or payments made on account of beneficial ownership interests in the global note, or for maintaining, supervising or reviewing any of DTC's records or any participant's or indirect participant's records relating to the beneficial ownership interests in the global note; or - any other matter relating to the actions and practices of DTC or any of its participants or indirect participants. We will not be required to make any payment on the notes due on any day which is not a business day until the next succeeding business day. The payment made on the next succeeding business day will be treated as though it were paid on the original due date and no interest will accrue on the payment for the additional period of time. Notes may be surrendered for conversion at the office or agency of the trustee in the Borough of Manhattan, New York. Notes surrendered for conversion must be accompanied by appropriate notices and any payments in respect of interest or taxes, as applicable, as described above under "-- Conversion Rights." We have initially appointed the trustee as registrar, paying agent and conversion agent. We may terminate the appointment of the registrar or any paying agent or conversion agent and appoint an additional registrar or additional or other paying agents and conversion agents. However, until the notes have been delivered to the trustee for cancellation, or moneys sufficient to pay the principal of, premium, if any, and interest on the notes have been made available for payment and either paid or returned to us as provided in the indenture, the trustee will maintain an office or agency in the Borough of Manhattan, New York for surrender of notes for conversion. Notice of any termination or appointment and of any change in the office through which the registrar or any paying agent or conversion agent will act will be given in accordance with "-- Notices" below. All moneys deposited with the trustee or any paying agent, or then held by us, in trust for the payment of principal of, premium, if any, or interest (including special interest) on any notes which remain unclaimed at the end of two years after the payment has become due and payable will be repaid to us, and you will then look only to us for payment. REPURCHASE AT OPTION OF HOLDERS UPON A CHANGE IN CONTROL If a change in control (as defined below) occurs, you will have the right, at your option, to require us to repurchase all of your notes not previously called for redemption, or any portion of the principal amount thereof, that is $1,000 or an integral multiple of $1,000. We will repurchase the notes upon a change in control at a price equal to 100% of the principal amount of the notes to be repurchased, together with accrued and unpaid interest to, but excluding, the repurchase date. At our option, instead of paying the repurchase price in cash, we may pay the repurchase price, in whole or in part, in our common stock (or in the case of a merger, consolidation or similar transaction in which we are not the surviving corporation, common stock, common equity interests, ordinary shares or 76 American Depository Shares of the surviving corporation or its direct or indirect parent corporation) valued at 95% of the average of the closing prices of our common stock for the five trading days immediately preceding the second trading day prior to the repurchase date. We may only pay the repurchase price in our common stock or applicable securities if we satisfy conditions provided in the indenture. Within 30 days after the occurrence of a change in control, we are obligated to give to you notice of the occurrence of the change in control, of the type of consideration to be paid and of the repurchase right arising as a result of the change in control. We must also deliver a copy of this notice to the trustee. To exercise the repurchase right, you must deliver on or before the second business day

immediately preceding the 20th day after the date of our notice a written notice to the trustee of your exercise of your repurchase right, together with the notes with respect to which the right is being exercised. You may withdraw this notice by delivering to the trustee a notice of withdrawal prior to the close of business on the second business day immediately preceding the repurchase date. We are required to repurchase the notes surrendered for repurchase on a repurchase date that is 20 days after our notice. Because the value of any shares of our common stock that we may use to satisfy our repurchase obligation will be determined prior to the repurchase date, holders of the notes bear the market risk that our common stock will decline in value between the date the repurchase price is calculated and the repurchase date. A change in control means the occurrence of any of the following: (1) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of RRI and its subsidiaries taken as a whole to any "person" (as that term is used in Section 13(d) of the Exchange Act, but excluding any employee benefit plan of RRI or any of its subsidiaries, and any person or entity acting in its capacity as trustee, agent or other fiduciary or administrator of any such plan); (2) the adoption of a plan relating to the liquidation or dissolution of RRI other than (i) the consolidation with, merger into or transfer of all or part of the properties and assets of any of our subsidiaries to us or any of our other subsidiaries and (ii) the merger of us with an affiliate solely for the purpose of our re-incorporating or our re-forming in another jurisdiction; (3) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any "person" (as defined above) becomes the beneficial owner, directly or indirectly, of more than 50% of the voting stock of RRI, measured by voting power rather than number of shares; (4) the first day on which a majority of the members of the board of directors of RRI are not continuing directors; (5) RRI consolidates with, or merges with or into, any person, or any person consolidates with, or merges with or into, RRI, in any such event pursuant to a transaction in which any of the outstanding voting stock of RRI or such other person is converted into or exchanged for cash, securities or other property, other than any such transaction where the voting stock of RRI outstanding immediately prior to such transaction is converted into or exchanged for voting stock (other than disqualified stock) of the surviving or transferee person constituting a majority of the outstanding shares of such voting stock of such surviving or transferee person (immediately after giving effect to such issuance); or (6) a termination of listing, which means that the common stock is neither listed for trading on a United States national securities exchange nor quoted on the Nasdaq National Market. 77 However, a change in control shall not be deemed to have occurred if either: - the closing price per share of our common stock for any five trading days within the period of 10 consecutive trading days ending immediately after the later of the change in control or the public announcement of the change in control (in the case of a change in control under clause (3) above) or the period of 10 consecutive trading days ending immediately before the change in control (in the case of a change in control under clause (5) above) shall equal or exceed 110% of the conversion price of the notes in effect on each such trading day; or - all of the consideration, excluding cash payments for fractional shares and cash payments made pursuant to dissenters' appraisal rights, in a merger or consolidation otherwise constituting a change in control described in clause (3) and/or clause (5) above consists of shares of common stock, depositary receipts or other certificates representing common equity interests traded on a national securities exchange or quoted on the Nasdaq National Market, or will be so traded or quoted immediately following such change in control, and as a result of such transaction or transactions the notes become convertible solely into such common stock, depositary receipts or other certificates representing common equity interests. For purposes of these provisions: - whether a person is a "beneficial owner" shall be determined in accordance with Rule 13d-3 promulgated by the Securities and Exchange Commission under the Exchange Act; - "voting stock" of any person as of any date means the capital stock of such person that is at the time entitled to vote in the election of the board of directors of such person; - "capital stock" means: (1) in the case of a corporation, corporate stock; (2) in the case of an association or business entity, any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock; (3) in the case of a partnership or limited liability company, partnership interests (whether general or limited) or membership interests; and (4) any other interest or participation that confers on a person the right to receive a share of the profits and losses of, or distributions of assets of, the issuing person, but excluding from all of the foregoing any debt securities convertible into capital stock, whether or not such debt securities include any right of participation with capital stock; - "disqualified stock" means any capital stock that, by its terms (or by the terms of any security into which it is convertible, or for which it is exchangeable, in each case, at the option of the holder of the capital stock), or upon the happening of any event, matures or is mandatorily redeemable, pursuant to a sinking fund obligation or otherwise, or redeemable at the option

of the holder of the capital stock, in whole or in part, on or prior to the date that is 91 days after the date on which the notes mature. Notwithstanding the preceding sentence, any capital stock that would constitute disqualified stock solely because the holders of the capital stock have the right to require RRI to repurchase such capital stock upon the occurrence of a change of control or an asset sale will not constitute disqualified stock. The amount of disqualified stock deemed to be outstanding at any time for purposes of the indenture shall be equal to the maximum amount that RRI and its subsidiaries may become obligated to pay upon the maturity of, or pursuant to any mandatory redemption provisions of, such disqualified stock, exclusive of accrued dividends. - "board of directors" means: (1) with respect to a corporation, the board of directors of the corporation or any committee thereof duly authorized to act on behalf of such board; (2) with respect to a partnership, the board of directors of the general partner of the partnership; (3) with respect to a limited liability company, the managing member or members or any controlling committee of managing members or board of directors thereof; and (4) with respect to any other person, the board or committee of such person serving a similar function; - "continuing director" means, as of any date of determination, any member of the board of directors of RRI who: (1) was a member of such board of directors on the date of the indenture; or (2) was 78 nominated for election or elected to such board of directors with the approval of a majority of the continuing directors who were members of such board at the time of such nomination or election; - the "conversion price" is equal to $1,000 divided by the conversion rate; and - "person" includes any syndicate or group which would be deemed to be a "person" under Section 13(d)(3) of the Exchange Act. The rules and regulations under the Exchange Act require the dissemination of prescribed information to security holders in the event of an issuer tender offer. These rules may apply in the event that the repurchase option becomes available to you. We will comply with these rules to the extent applicable at that time. We may, to the extent permitted by applicable law, at any time purchase notes in the open market or by tender at any price or by private agreement. Any note so purchased by us may, to the extent permitted by applicable law and, subject to certain conditions, be reissued or resold or may, at our option, be surrendered to the trustee for cancellation. Any notes surrendered for cancellation may not be reissued or resold and will be canceled promptly. Our ability to repurchase notes upon the occurrence of a change in control is subject to limitations. We may not have sufficient financial resources or the ability to arrange financing to pay the repurchase price in cash for all the notes delivered by holders seeking to exercise their repurchase right. Although our ability to repurchase the notes in cash may be limited or prohibited by the terms of any future borrowing arrangements existing at the time of a change in control, we may elect, subject to satisfaction of certain conditions, to pay the repurchase price for the notes in common stock or applicable securities. Any failure by us to repurchase the notes upon a change in control would result in an event of default under the indenture, whether or not the repurchase is permitted by the subordination provisions of the indenture. Any such default may, in turn, cause a default under our senior debt. Moreover, the occurrence of a change in control could result in an event of default under the terms of our then existing indebtedness. As a result, any repurchase of the notes may be prohibited until the senior debt is paid in full. The change in control repurchase provision of the notes may, in certain circumstances, make more difficult or discourage a takeover of our company. The change in control repurchase feature, however, is not the result of our knowledge or any specific effort to accumulate shares of our common stock, to obtain control of us by means of a merger, tender offer solicitation or otherwise by management to adopt a series of anti-takeover provisions. Instead, the change in control purchase feature is a standard term contained in convertible securities similar to the notes. The definition of change in control includes a phrase relating to the transfer or sale of all or substantially all of our assets. There is no precise, established definition of the phrase "substantially all" under applicable law. Accordingly, your ability to require us to repurchase your notes as a result of a transfer or sale of less than all of our assets may be uncertain. The foregoing provisions would not necessarily afford you protection in the event of highly leveraged or other transactions involving us that may adversely affect you. EVENTS OF DEFAULT The following are events of default under the indenture: - we fail to pay principal of or premium, if any, on any note when due, whether or not prohibited by the subordination provisions of the indenture; - we fail to pay any interest, including any special interest, on any note when due, which failure continues for 30 days, whether or not prohibited by the subordination provisions of the indenture; - we fail to comply with the notice and repurchase provisions described under "-- Repurchase at Option of Holders Upon a Change of Control," whether or not the notice or repurchase is 79 prohibited by the subordination provisions of the indenture, which failure continues for 30 days following notice as provided in the indenture; - we fail to perform any agreement or other covenant in the notes or the indenture, which failure continues for 90 days following notice as provided in the indenture; - we fail to pay any indebtedness under any bond, debenture, note or other evidence of

indebtedness for money borrowed by us or any of our subsidiaries, other than (1) Reliant Energy Retail Holdings, LLC or any subsidiary thereof in connection with a securitization transaction in which the indebtedness incurred by such entities is non-recourse to Reliant Resources and its other subsidiaries (2) Reliant Energy Capital (Europe) Inc. and its subsidiaries, (3) Reliant Energy Channelview, L.P. and its subsidiaries so long as, taken together, they would not constitute a significant subsidiary and (4) Liberty Electric PA, LLC, Liberty Electric Power, LLC and their respective subsidiaries so long as, taken together, they would not constitute a significant subsidiary (or the payment of which is guaranteed by us), in a principal aggregate amount then outstanding in excess of $100,000,000 at final maturity (either at its stated maturity or upon acceleration thereof), and such indebtedness is not discharged, or such acceleration is not rescinded or annulled, within the grace period provided in such bond, debenture, note, or other evidence of indebtedness; - failure by us or any of our subsidiaries, other than (1) Reliant Energy Retail Holdings, LLC or any subsidiary thereof that has engaged in a securitization transaction (2) Reliant Energy Capital (Europe) Inc. and its subsidiaries, (3) Reliant Energy Channelview, L.P. and its subsidiaries so long as, taken together, they would not constitute a significant subsidiary and (4) Liberty Electric PA, LLC, Liberty Electric Power, LLC and their respective subsidiaries so long as, taken together, they would not constitute a significant subsidiary, to pay final and non-appealable judgments aggregating in excess of $100,000,000, which are not covered by indemnities or third-party insurance, which judgments are not paid, discharged, vacated or stayed for a period of 60 days; and - certain events of bankruptcy, insolvency or reorganization involving us or any of our significant subsidiaries (other than Reliant Energy Capital (Europe) Inc. and its subsidiaries). Subject to the provisions of the indenture relating to the duties of the trustee in case an event of default shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request or direction of any holder, unless the holder shall have offered and provided indemnity satisfactory to the trustee. Subject to providing indemnification of the trustee, the holders of a majority in aggregate principal amount of the outstanding notes will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee. The trustee may withhold from holders of the notes notice of any continuing event of default if it determines that withholding notice is in their interest, except an event of default relating to the payment of principal, premium, if any, or interest or special interest. In general, the trustee is required to give notice of a default with respect to the notes to the holders of those notes. However, the trustee may withhold notice of any such default (except a default in payment of principal of or interest on any note) if the trustee determines it is in the best interests of the holders of the notes to do so. If an event of default other than an event of default arising from events of insolvency, bankruptcy or reorganization occurs and is continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding notes may accelerate the maturity of all notes. However, after such acceleration, but before a judgment or decree based on acceleration, the holders of a majority in aggregate principal amount of outstanding notes may, under certain circumstances, rescind and annul the acceleration if all events of default, other than the non-payment of principal of the notes that have become due solely by such declaration of acceleration, have been cured or waived as provided in the indenture. If an event of default arising from events of insolvency, bankruptcy or reorganization relating to us occurs and is continuing, then the principal of, and accrued interest on, all of the notes will automatically become immediately due and payable without any declaration or other act on the part of the holders of the notes 80 or the trustee. For information as to waiver of defaults, see "-- Meetings, Modification and Waiver" below. You will not have any right to institute any proceeding with respect to the indenture, or for any remedy under the indenture, unless: - you give the trustee written notice of a continuing event of default; - the holders of at least 25% in aggregate principal amount of the outstanding notes have made written request and offered indemnity satisfactory to the trustee to institute proceedings; - the trustee shall have failed to institute such proceeding within 60 days of the written request; and - the trustee has not received from the holders of a majority in aggregate principal amount of the outstanding notes a direction inconsistent with the written request within such 60 day period. However, these limitations do not apply to a suit instituted by you for the enforcement of payment of the principal of, premium, if any, or interest, including special interest, on your note on or after the respective due dates expressed in your note or your right to convert your note in accordance with the indenture. We will be required to furnish to the trustee annually a statement as to our performance of certain of our obligations under the indenture and as to any default in such performance. Upon becoming aware of any event of default, RRI is required to deliver to the trustee a statement specifying such event of default. MEETINGS, MODIFICATION AND WAIVER The indenture contains provisions for convening meetings of the holders of notes to consider matters affecting their interests. The indenture may be

amended or modified without the necessity of obtaining the consent of the holders of the notes in order to, among other things: - provide for our successor pursuant to a consolidation, merger or sale of assets; - add to our covenants for the benefit of the holders of all or any of the notes or to surrender any right or power conferred upon us by the indenture; - provide for a successor trustee with respect to the notes; - cure any ambiguity or correct or supplement any provision in the indenture which may be defective or inconsistent with any other provision, or to make any other provisions with respect to matters or questions arising under the indenture which, in each case, will not adversely affect the interests of the holders of the notes; - add any additional events of default with respect to all or any of the notes; - secure the notes; or - increase the conversion rate or reduce the conversion price, provided that the increase or reduction, as the case may be, is in accordance with the terms of the indenture or will not adversely affect the interests of the holders of the notes. Other modifications and amendments of the indenture may be made, compliance by us with certain restrictive provisions of the indenture may be waived, and any past defaults by us under the indenture (except: (1) a default in the payment of principal, premium, if any, or interest, (2) failure to convert a note into common stock or (3) failure to comply with any of the provisions of the indenture that would require the consent of the holder of each outstanding note affected) may be waived with the written consent of the holders of not less than a majority in aggregate principal amount of the notes at the time outstanding. 81 The quorum at any meeting called to adopt a resolution will be persons holding or representing a majority in aggregate principal amount of the notes at the time outstanding and, at any reconvened meeting adjourned for lack of a quorum, 25% of such aggregate principal amount. However, a modification or amendment requires the consent of the holder of each outstanding note affected if it would: - change the stated maturity of the principal or interest of a note; - reduce the principal amount of, or any premium or interest on, any note; - reduce the amount payable upon a redemption or mandatory repurchase; - modify the provisions with respect to the repurchase rights of holders of notes in a manner adverse to the holders; - modify our rights to redeem the notes in a manner adverse to the holders; - change the place or currency of payment on a note; - impair the right to institute suit for the enforcement of any payment on any note; - modify our obligation to maintain an office or agency in New York City; - modify the subordination provisions in a manner that is adverse to the holders of the notes; - adversely affect the right to convert the notes other than a modification or amendment permitted by the terms of the indenture; - modify our obligation to deliver information required under Rule 144A to permit resales of the notes and common stock issued upon conversion of the notes if we cease to be subject to the reporting requirements under the Exchange Act; - reduce the above-stated percentage of the principal amount of the holders whose consent is needed to modify or amend the indenture; - reduce the percentage of the principal amount of the holders whose consent is needed to waive compliance with certain provisions of the indenture or to waive certain defaults; - reduce the percentage of the principal amount of the holders required for the adoption of a resolution or the quorum required at any meeting of holders of notes at which a resolution is adopted; or - modify the provisions with respect to meetings, modification and waiver. We will generally be entitled to set any day as a record date for the purpose of determining the holders of outstanding notes that are entitled to take any action under the indenture. In limited circumstances, the trustee will be entitled to set a record date for action by holders. If a record date is set for any action to be taken by holders, such action may be taken only by persons who are holders of outstanding notes on the record date and must be taken within 180 days following the record date or such other period as we may specify (or as the trustee may specify, if it set the record date). This period may be shortened or lengthened (but not beyond 180 days) from time to time. REGISTRATION RIGHTS We entered into a registration rights agreement with the initial purchasers of the notes. If you sell the notes or shares of common stock issued upon conversion of the notes under this registration statement, you generally will be required to be named as a selling securityholder in this prospectus, deliver this prospectus to purchasers and be bound by applicable provisions of the registration rights agreement, including some indemnification provisions. 82 In the registration rights agreement, we agreed to use our reasonable best efforts to keep the registration statement effective until the earlier of (1) the sale pursuant to this shelf registration statement of all securities registered hereunder; (2) the expiration of the period referred to in Rule 144(k) of the Securities Act with respect to all the notes and the shares of common stock issuable upon conversion of the notes held by persons that are not our affiliates; or (3) June 24, 2005. We may suspend the use of this prospectus under certain circumstances relating to pending corporate developments, public filings with the SEC and similar events for a period not to exceed 45 days in any 90-day period and not to exceed an aggregate of 90 days in any 365-day period. We also agreed to pay special interest to holders of the notes and shares of common stock issued upon conversion of the notes if this registration statement is not timely filed or made effective or if the prospectus is

unavailable for periods in excess of those permitted above. You should refer to the registrations rights agreement for a description of this special interest. NOTICES Notice to holders of the registered notes will be given by mail to the addresses as they appear in the security register. Notices will be deemed to have been given on the date of such mailing. Notice of a redemption of notes will be given not less than 30 nor more than 60 days prior to the redemption date and will specify the redemption date. A notice of redemption of the notes will be irrevocable. REPLACEMENT OF NOTES We will replace any note that becomes mutilated, destroyed, stolen or lost at the expense of the holder upon delivery to the trustee of the mutilated notes or evidence of the loss, theft or destruction satisfactory to us and the trustee. In the case of a lost, stolen or destroyed note, indemnity satisfactory to the trustee and us may be required at the expense of the holder of the note before a replacement note will be issued. PAYMENT OF STAMP AND OTHER TAXES We will pay all stamp and other duties, if any, that may be imposed by the United States or any political subdivision thereof or taxing authority thereof or therein with respect to the issuance of the notes or of shares of stock upon conversion of the notes. We will not be required to make any payment with respect to any other tax, assessment or governmental charge imposed by any government or any political subdivision thereof or taxing authority thereof or therein. SATISFACTION AND DISCHARGE We may satisfy and discharge our obligations under the indenture while the notes remain outstanding, subject to certain conditions, if: - all outstanding notes will become due and payable at their scheduled maturity within one year; or - all outstanding notes are scheduled for redemption within one year, and in either case, we have deposited with the trustee an amount in cash or cash equivalents sufficient to pay and discharge all outstanding notes on the date of their scheduled maturity or the scheduled date of redemption. GOVERNING LAW The indenture, the notes and the registration rights agreement are governed by and construed in accordance with the laws of the State of New York, United States of America. 83 THE TRUSTEE If an event of default occurs and is continuing, the trustee will be required to use the degree of care of a prudent person in the conduct of his own affairs in the exercise of its powers. Subject to such provisions, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of notes, unless they shall have furnished to the trustee reasonable security or indemnity satisfactory to it. The indenture contains certain limitations on the rights of the trustee, if it or any of its affiliates is then our creditor, to obtain payment of claims in certain cases or to realize on certain property received on any claims as security or otherwise. The trustee and its affiliates will be permitted to engage in other transactions with us. However, if the trustee or any affiliate continues to have any conflicting interest and a default occurs with respect to the notes, the trustee must eliminate such conflict or resign. 84 DESCRIPTION OF CAPITAL STOCK GENERAL The following descriptions are summaries of material terms of our common stock, preferred stock, restated certificate of incorporation and amended and restated bylaws. This summary is qualified by reference to our restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part, and by the provisions of applicable law. Our authorized capital stock consists of 2,000,000,000 shares of common stock, par value $0.001 per share, and 125,000,000 shares of preferred stock, par value $0.001 per share. Of the 125,000,000 shares of preferred stock, 2,000,000 shares have been designated Series A preferred stock. As of December 5, 2003, there were 294,591,650 shares of common stock outstanding, 5,212,350 shares of common stock held in treasury and there were no outstanding shares of preferred stock. COMMON STOCK Each share of common stock entitles the holder to one vote on all matters submitted to a vote of stockholders, including the election of directors. There are no cumulative voting rights. Accordingly, holders of a majority of the total votes entitled to vote in an election of directors will be able to elect all of the directors standing for election. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of our common stock are entitled to dividends when, as and if declared by our board of directors out of funds legally available for that purpose. If we are liquidated, dissolved or wound up, the holders of our common stock will be entitled to a pro rata share in any distribution to stockholders, but only after satisfaction of all of our liabilities and of the prior rights of any outstanding series of our preferred stock. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of our common stock are fully paid and nonassessable. PREFERRED STOCK Our board of directors has the authority, without stockholder approval, to issue shares of preferred stock from time to time in one or more series, and to fix the number of shares and terms of each such series. The board may determine the designation and other terms of each series, including: - dividend rates, - redemption rights, - liquidation rights, - sinking fund provisions, - conversion rights, - voting rights, and - any other designations, powers, preferences, rights, qualifications, limitations, or restrictions. The issuance of

preferred stock, while providing desired flexibility in connection with possible acquisitions and other corporate purposes, could adversely affect the voting power of holders of our common stock. It could also affect the likelihood that holders of our common stock will receive dividend payments and payments upon liquidation. The issuance of shares of preferred stock, or the issuance of rights to purchase shares of preferred stock, could be used to discourage an attempt to obtain control of our company. For example, if, in the exercise of its fiduciary obligations, our board were to determine that a takeover proposal was not in our best interest, the board could authorize the issuance of a series of preferred stock containing class voting 85 rights that would enable the holder or holders of the series to prevent or make the change of control transaction more difficult. Alternatively, a change of control transaction deemed by the board to be in our best interest could be facilitated by issuing a series of preferred stock having sufficient voting rights to provide a required percentage vote of the stockholders. Holders of our common stock may purchase shares of our Series A preferred stock if the rights associated with their common stock are exercisable and the holders exercise the rights. Please read the "-- Stockholder Rights Plan" section below. SERIES A PREFERRED STOCK Our Series A preferred stock ranks junior to all other series of our preferred stock, and senior to our common stock with respect to dividend and liquidation rights. If we liquidate, dissolve or wind up, we may not make any distributions to holders of our common stock unless we first pay holders of our Series A preferred stock an amount equal to: - $1,000 per share, plus - accrued and unpaid dividends and distributions on our Series A preferred stock, whether or not declared, to the date of such payment. If the dividends or distributions payable on our Series A preferred stock are in arrears, we may not: - declare or pay dividends on, - make any other distributions on, - redeem, - purchase, or - otherwise acquire for consideration, any shares of our common stock or our Series A preferred stock, until we have paid all such unpaid dividends or distributions, except in accordance with a purchase offer to all holders of our Series A preferred stock upon terms that our board of directors determines will be fair and equitable. We may redeem shares of our Series A preferred stock at any time at a redemption price determined in accordance with the provisions of our certificate of incorporation. Holders of shares of our Series A preferred stock are entitled to vote together with holders of our common stock as one class on all matters submitted to a vote of our stockholders. Each share of our Series A preferred stock entitles its holder to a number of votes equal to the "adjustment number" specified in our restated certificate of incorporation. The adjustment number is initially equal to 1,000 and is subject to adjustment in the event we: - declare any dividend on our common stock payable in shares of common stock, - subdivide our outstanding shares of common stock, or - combine our outstanding shares of common stock into a smaller number of shares. ANTI-TAKEOVER EFFECTS OF DELAWARE LAWS AND OUR CHARTER AND BYLAW PROVISIONS Some provisions of Delaware law and our restated certificate of incorporation and bylaws could make the following more difficult: - acquisition of us by means of a tender offer, - acquisition of control of us by means of a proxy contest or otherwise, or - removal of our incumbent officers and directors. 86 These provisions, as well as our stockholder rights plan and our ability to issue preferred stock, are designed to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of increased protection give us the potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us, and that the benefits of this increased protection outweigh the disadvantages of discouraging those proposals, because negotiation of those proposals could result in an improvement of their terms. CHARTER AND BYLAW PROVISIONS ELECTION AND REMOVAL OF DIRECTORS Our board of directors may be comprised of between one and fifteen directors, the exact number to be fixed from time to time by resolution of our board of directors. Currently, our board of directors has five members. Our board of directors is divided into three classes. The directors in each class will serve for a three-year term, with only one class being elected each year by our stockholders. This system of electing and removing directors may discourage a third party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of our directors. In addition, no director may be removed except for cause, and directors may be removed for cause by a majority of the shares then entitled to vote at an election of directors. Any vacancy occurring on the board of directors and any newly created directorship may only be filled by a majority of the remaining directors in office. STOCKHOLDER MEETINGS Our bylaws provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our president and chief executive officer, or a majority of the board of directors and may not be called by the holders of common stock. In addition, our restated certificate of incorporation and our bylaws specifically deny any power of the stockholders to call a special meeting. ELIMINATION OF

STOCKHOLDER ACTION BY WRITTEN CONSENT Our restated certificate of incorporation and our bylaws provide that holders of our common stock will not be able to act by written consent without a meeting. AMENDMENT OF CERTIFICATE OF INCORPORATION The provisions described above under "-- Election and Removal of Directors", "-- Stockholder Meetings" and "-- Elimination of Stockholder Action by Written Consent" may be amended only by the affirmative vote of holders of at least 66 2/3% of the voting power of outstanding shares of our capital stock entitled to vote in the election of directors, voting together as a single class. AMENDMENT OF BYLAWS Our board of directors has the power to alter, amend or repeal our bylaws or adopt new bylaws by the affirmative vote of at least 80% of all directors then in office at any regular or special meeting of the board of directors called for that purpose. This right is subject to repeal or change by the affirmative vote of holders of at least 80% of the voting power of all outstanding shares of our capital stock entitled to vote in the election of directors, voting together as a single class. OTHER LIMITATIONS ON STOCKHOLDER ACTIONS Our bylaws also impose some procedural requirements on stockholders who wish to: - make nominations in the election of directors, - propose that a director be removed, 87 - propose any repeal or change in our bylaws, or - propose any other business to be brought before an annual or special meeting of stockholders. With respect to special meetings of stockholders, our bylaws provide that only such business shall be conducted as shall have been stated in the notice of the meeting or shall otherwise have been brought before the meeting by or at the direction of the chairman of the meeting or the board of directors. Under these procedural requirements, in order to bring a proposal or nomination before an annual meeting of stockholders, or in order to bring a nomination before a meeting of stockholders, a stockholder must deliver timely notice to our corporate secretary along with the following: - a description of the business or nomination to be brought before the meeting and the reasons for conducting such business at the meeting, - the stockholder's name and address, - the number of shares beneficially owned by the stockholder and evidence of such ownership, - the names and addresses of all persons with whom the stockholder is acting in concert and a description of all arrangements and understandings with such persons, and - the number of shares such persons beneficially own. To be timely, a stockholder must deliver notice: - of a nomination or other business in connection with an annual meeting of stockholders, not less than 90 nor more than 180 days prior to the date on which the immediately preceding year's annual meeting of stockholders was held, or - of a nomination in connection with a special meeting of stockholders, not less than 40 nor more than 60 days prior to the date of the special meeting. In order to submit a nomination for our board of directors, a stockholder must also submit information with respect to the nominee that we would be required to include in a proxy statement, as well as some other information. If a stockholder fails to follow the required procedures, the stockholder's nominee or proposal will be ineligible and will not be voted on by our stockholders. LIMITATION ON LIABILITY OF DIRECTORS Our restated certificate of incorporation provides that no director shall be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except as required by law, as in effect from time to time. Currently, Delaware law requires that liability be imposed for the following: - any breach of the director's duty of loyalty to our company or our stockholders, - any act or omission not in good faith or which involved intentional misconduct or a knowing violation of law, - unlawful payments of dividends or unlawful stock repurchases or redemptions, and - any transaction from which the director derived an improper personal benefit. Our bylaws provide that, to the fullest extent permitted by law, we will indemnify any officer or director of our company against all damages, claims and liabilities arising out of the fact that the person is or was our director or officer, or served any other enterprise at our request as a director, officer, employee, agent or fiduciary. We will reimburse the expenses, including attorneys' fees, incurred by a person indemnified by this provision when we receive an undertaking to repay such amounts if it is ultimately determined that the person is not entitled to be indemnified by us. Amending this provision will not reduce our indemnification obligations relating to actions taken before an amendment. 88 STOCKHOLDER RIGHTS PLAN Each share of common stock includes one right to purchase from us a unit consisting of one-thousandth of a share of our Series A preferred stock at a purchase price of $150.00 per unit, subject to adjustment. The rights are issued pursuant to a rights agreement between us and JP Morgan Chase Bank, as successor to The Chase Manhattan Bank, as rights agent. We have summarized selected portions of the rights agreement and the rights below. For a complete description of the rights, we encourage you to read the summary below and the rights agreement, which we have filed as an exhibit to the registration statement of which this prospectus is a part. DETACHMENT OF RIGHTS; EXERCISABILITY The rights are evidenced by the certificates representing our currently outstanding common stock and all common stock certificates we issue prior to the "distribution date". That date will occur, except in some cases, on the earlier of: - ten

days following a public announcement that a person or group of affiliated or associated persons, who we refer to collectively as an "acquiring person", has acquired, or obtained the right to acquire, beneficial ownership of 15% or more of the outstanding shares of our common stock, or - ten business days following the start of a tender offer or exchange offer that would result in a person becoming an acquiring person. Our board of directors may defer the distribution date in some circumstances. Also, some inadvertent acquisitions of our common stock will not result in a person becoming an acquiring person if the person promptly divests itself of sufficient common stock. Until the distribution date: - common stock certificates will evidence the rights, - the rights will be transferable only with those certificates, - new common stock certificates will contain a notation incorporating the rights agreement by reference, and - the surrender for transfer of any common stock certificate will also constitute the transfer of the rights associated with the common stock represented by the certificate. The rights are not exercisable until the distribution date and will expire at the close of business on January 15, 2011, unless we redeem or exchange them at an earlier date as described below or we extend the expiration date prior to January 15, 2011. As soon as practicable after the distribution date, the rights agent will mail certificates representing the rights to holders of record of common stock as of the close of business on the distribution date. From that date on, only separate rights certificates will represent the rights. We will issue rights with all shares of common stock issued prior to the distribution date. We will also issue rights with shares of common stock issued after the distribution date in connection with some employee benefit plans or upon conversion of some securities. Except as otherwise determined by our board of directors, we will not issue rights with any other shares of common stock issued after the distribution date. FLIP-IN EVENT A "flip-in event" will occur under the rights agreement when a person becomes an acquiring person otherwise than pursuant to a "permitted offer". The rights agreement defines "permitted offer" as a tender or exchange offer for all outstanding shares of our common stock at a price and on terms that a majority of the independent directors on our board of directors determines to be fair to and otherwise in our best interests and the best interests of our stockholders. 89 If a flip-in event occurs, each right, other than any right that has become null and void as described below, will become exercisable to receive the number of shares of common stock, or in some specified circumstances, cash, property or other securities, which has a "current market price" equal to two times the exercise price of the right. Please refer to the rights agreement for the definition of "current market price". FLIP-OVER EVENT A "flip-over event" will occur under the rights agreement when, at any time from and after the time a person becomes an acquiring person: - we are acquired by any person or we acquire any person in a merger or other business combination transaction, other than specified mergers that follow a permitted offer, or - 50% or more of our assets, cash flow or earning power is sold, leased or transferred. If a flip-over event occurs, each holder of a right, except rights that are voided as described below, will thereafter have the right to receive, on exercise of the right, a number of shares of common stock of the acquiring company that has a current market price equal to two times the exercise price of the right. When a flip-in event or a flip-over event occurs, all rights that then are, or under the circumstances the rights agreement specifies previously were, beneficially owned by an acquiring person or specified related parties will become null and void in the circumstances the rights agreement specifies. SERIES A PREFERRED STOCK After the distribution date, each right will entitle the holder to purchase a fractional share of our Series A preferred stock, which will be essentially the economic equivalent of one share of common stock. Please refer to the "-- Preferred Stock -- Series A Preferred Stock" section above for additional information about our Series A preferred stock. ANTIDILUTION The number of rights associated with a share of outstanding common stock, the number of fractional shares of Series A preferred stock issuable upon exercise of a right and the exercise price of the right are subject to adjustment in the event of a stock dividend on, or a subdivision, combination or reclassification of, our common stock occurring prior to the distribution date. The exercise price of the rights and the number of fractional shares of Series A preferred stock or other securities or property issuable on exercise of the rights are subject to adjustment from time to time to prevent dilution in the event of some specified transactions affecting the Series A preferred stock. With some exceptions, we will not be required to adjust the exercise price of the rights until cumulative adjustments amount to at least 1% of the exercise price. The rights agreement also will not require us to issue fractional shares of Series A preferred stock that are not integral multiples of the specified fractional share and, in lieu thereof, we will make a cash payment based on the market price of the Series A preferred stock on the last trading date prior to the date of exercise. Pursuant to the rights agreement, we reserve the right to require prior to the occurrence of any flip-in event or flip-over event that, on any exercise of rights, a number of rights be exercised so that we will issue only whole shares of Series A preferred stock. REDEMPTION OF RIGHTS At any time until the time a person becomes an acquiring person, we may redeem the rights in whole, but

not in part, at a price of $.005 per right, payable, at our option, in cash, shares of common stock or such other consideration as our board of directors may determine. Upon such redemption, the rights will terminate and the only right of the holders of rights will be to receive the $.005 redemption price. 90 EXCHANGE OF RIGHTS At any time after the occurrence of a flip-in event and prior to a person becoming the beneficial owner of 50% or more of our outstanding common stock or the occurrence of a flip-over event, we may exchange the rights, other than rights owned by an acquiring person or an affiliate or an associate of an acquiring person, which will have become void, in whole or in part, at an exchange ratio of one share of common stock, and/or other equity securities deemed to have the same value as one share of common stock, per right, subject to adjustment. SUBSTITUTION If we have an insufficient number of authorized but unissued shares of common stock available to permit an exercise or exchange of rights upon the occurrence of a flip-in event, we may substitute other specified types of property for common stock so long as the total value received by the holder of the rights is equivalent to the value of the common stock that the stockholder would otherwise have received. We may substitute cash, property, equity securities or debt, reduce the exercise price of the rights or use any combination of the foregoing. NO RIGHTS AS A STOCKHOLDER; TAXES Until a right is exercised, a holder of rights will have no rights to vote or receive dividends or any other rights as a stockholder of our common stock. Stockholders may, depending upon the circumstances, recognize taxable income in the event that the rights become exercisable for our common stock, or other consideration, or for the common stock of the acquiring company or are exchanged as described above. AMENDMENT OF TERMS OF RIGHTS Our board of directors may amend any of the provisions of the rights agreement, other than some specified provisions relating to the principal economic terms of the rights and the expiration date of the rights, at any time prior to the time a person becomes an acquiring person. Thereafter, our board of directors may only amend the rights agreement in order to cure any ambiguity, defect or inconsistency or to make changes that do not materially and adversely affect the interests of holders of the rights, excluding the interests of any acquiring person. RIGHTS AGENT JP Morgan Chase Bank, as successor to The Chase Manhattan Bank, serves as rights agent with regard to the rights. ANTITAKEOVER EFFECTS The rights will have anti-takeover effects. They will cause substantial dilution to any person or group that attempts to acquire us without the approval of our board of directors. As a result, the overall effect of the rights may be to make more difficult or discourage any attempt to acquire us even if such acquisition may be favorable to the interests of our stockholders. Because our board of directors can redeem the rights or approve a permitted offer, the rights should not interfere with a merger or other business combination approved by our board of directors.