Final Term Sheet

Great Plains Energy Incorporated

4.85% Notes due 2021

Issuer: Great Plains Energy Incorporated

Principal Amount: \$350,000,000

Title of Securities: 4.85% Notes due 2021

Maturity Date: June 1, 2021

Coupon (Interest Rate): 4.85%

Yield to Maturity: 4.862%

Benchmark Treasury: 3.125% due May 15, 2021

Spread to Benchmark Treasury: +170 basis points

Benchmark Treasury Price and Yield: 99-22, 3.162%

Interest Payment Dates: Semi-annually on June 1 and December 1, commencing on December 1, 2011

Price to Public: 99.904% of the principal amount, plus accrued interest, if any, from May 19, 2011

Redemption Provision: Prior to March 1, 2021, callable at any time at a make-whole premium of the greater of (i) 100% of the

principal amount or (ii) discounted present value at Treasury Rate plus 25 basis points.

On or after March 1, 2021, callable at any time at par.

Settlement Date: May 19, 2011

CUSIP Number: 391164 AE0

Ratings: Moody's Investor Services: Baa3 (Stable Outlook)

Standard & Poor's Ratings Group: BBB- (Stable Outlook)

Joint Bookrunners: J.P. Morgan Securities LLC

Merrill Lynch, Pierce, Fenner & Smith

Incorporated

Mitsubishi UFJ Securities (USA), Inc.

Senior Co-Manager: U.S. Bancorp Investments, Inc.

Co-Manager: Valdés & Moreno, Inc.

Note: A securities rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time.

The issuer has filed a registration statement (including a prospectus) with the SEC for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated or Mitsubishi UFJ Securities (USA), Inc. can arrange to send you the prospectus if you request it by calling J.P. Morgan Securities LLC collect at (212) 834-4533, Merrill Lynch, Pierce, Fenner & Smith Incorporated toll-free at (800) 294-1322 or Mitsubishi UFJ Securities (USA), Inc. toll-free at (877) 649-6848.