

**Certification of CEO and CFO Pursuant to  
18 U.S.C. Section 1350,  
as Adopted Pursuant to  
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report on Form 10-Q of Great Plains Energy Incorporated (the "Company") for the quarterly period ended June 30, 2003 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Bernard J. Beaudoin, as Chairman of the Board, President and Chief Executive Officer of the Company, and Andrea F. Bielsker, as Senior Vice President - Finance, Chief Financial Officer and Treasurer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of his or her knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Name: /s/Bernard J. Beaudoin  
Bernard J. Beaudoin  
Title: Chairman of the Board, President and Chief  
Executive Officer  
Date: August 13, 2003

Name: /s/Andrea F. Bielsker  
Andrea F. Bielsker  
Title: Senior Vice President - Finance, Chief Financial  
Officer and Treasurer  
Date: August 13, 2003

This certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document. This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to liability under that section. This certification shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934 except to the extent this Exhibit 32.1 is expressly and specifically incorporated by reference in any such filing.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to Great Plains Energy Incorporated and will be retained by Great Plains Energy Incorporated and furnished to the Securities and Exchange Commission or its staff upon request.