

Prospectus Supplement

(To Prospectus Supplement Dated April 2, 2010 and Prospectus Dated April 2, 2010)

WESTAR ENERGY, INC.

COMMON STOCK

Pursuant to a Sales Agency Financing Agreement dated as of April 2, 2010 by and among Westar Energy, Inc., a Kansas corporation (the “Company”), BNY Mellon Capital Markets, LLC, a registered broker-dealer organized under the laws of New York (“BNYMCM”) and The Bank of New York Mellon (filed as an exhibit to our registration statement on Form S-3 with the Securities Exchange Commission (“SEC”) on April 2, 2010) and the Master Confirmation for Forward Stock Sale Transactions, dated April 2, 2010 by and among the Company, BNYMCM and The Bank of New York Mellon (filed as an exhibit to our current report on Form 8-K with the SEC on April 2, 2010), both of which are incorporated by reference herein, during the period April 2, 2010 through August 4, 2010, we entered into forward sale transactions (the “Forward Transactions”), through BNYMCM, as our agent, for an aggregate of approximately 3.7 million shares of our common stock, par value \$5.00 per share (the “Common Stock”).

In connection with the Forward Transactions, we did not receive any proceeds from the sale of the borrowed shares of our Common Stock by BNYMCM. We expect to receive proceeds from the sale of such shares, subject to certain adjustments, upon future physical settlement(s) of the Forward Transactions pursuant to the terms of the Master Confirmation for Forward Stock Sale Transactions.

Neither the SEC nor any state securities regulators or other regulatory bodies have approved or disapproved of these securities, or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

BNY Mellon Capital Markets, LLC

The date of this prospectus supplement is August 5, 2010.
