



UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549-0405

Mail Stop 3561

June 5, 2007

Mr. Allen L. Leverett  
Chief Financial Officer  
Wisconsin Energy Corporation  
231 West Michigan Street  
P.O. Box 1331  
Milwaukee, WI 53201

**RE: Wisconsin Energy Corporation  
Form 10-K for Fiscal Year Ended December 31, 2006  
Filed February 28, 2007  
Form 10-Q for Fiscal Quarter Ended March 31, 2007  
Filed May 7, 2007  
File No. 1-9057**

Dear Mr. Leverett:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Mr. Allen L. Leverett  
Wisconsin Energy Corporation  
June 5, 2007  
Page 2

Form 10-K for Fiscal Year Ended December 31, 2006

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 40

Liquidity and Capital Resources, page 53

Contractual Obligations/Commercial Commitments, page 59

1. Please tell us and revise to disclose the nature and amount of long-term liabilities excluded from the table.

Industry Restructuring and Competition, page 76

Electric Transmission and Energy Markets, page 77

2. With reference to authoritative literature please tell us, and to the extent material please revise to disclose, how you value and account for FTRs.

Item 8. Financial Statements and Supplementary Data, page 82

Consolidated Statements of Cash Flows, page 85

3. Please tell us in detail how you classified cash flows from discontinued operations and the basis in GAAP for each of the classifications. In your response, please specifically address proceeds from sale of discontinued operations disclosed in Note D, the nature of the items included in the "cash from discontinued operations" line item under investing activities and the items included in the "discontinued operations" section of the statement. Please also explain the facts and circumstances that result in a classification other than "discontinued operations" on a basis consistent with the classification of income, gains, losses and impairment charges of discontinued operations in the consolidated income statements. We may have further comment after reviewing your response.

Notes to Consolidated Financial Statements, page 89

Note D – Asset Sales, Divestitures and Discontinued Operations, page 97

4. Please explain to us how you accounted for the transfer of WICOR's ownership interest in Wisconsin Gas through the stock redemption and your basis in GAAP for your accounting treatment. In addition, please explain to us the income tax effects of the transaction.

Note I – Nuclear Operations, page 103

5. Please explain to us why the Point Beach generating units do not qualify for classification as held for sale. In your response, address the criteria in paragraph 30 of SFAS 144.
6. As you disclose that the new decommissioning cost study as prepared by an outside consultant was used to estimate your ARO for nuclear decommissioning please name and file the written consent of the outside consultant to whom you refer. Alternatively, please remove the reference to the outside consultant. Refer to Section 436(b) of Regulation C and Section 7(a) of the Securities Act of 1933.

Note J – Common Equity, page 105

Share-Based Compensation Plans, page 105

7. Please revise to disclose the total intrinsic value of options exercised, share based liabilities paid and the total fair value of restricted shares vested for each year for which an income statement is provided. Refer to paragraph A240.c.(2) of SFAS 123(R). Also disclose the total compensation cost for share-based payment arrangements recognized in income and the total recognized tax benefit related thereto for each year for which an income statement is presented per paragraph A240.g.(1) of SFAS 123(R).

Note O – Benefits, page 112

8. Please revise to disclose the net gain or loss and net prior service cost not yet recognized and the amounts to be recognized in the succeeding year. Refer to paragraphs 7.c and 7.d of SFAS 158.

Form 10-Q for Quarterly Period Ended March 31, 2006

9. Please address the comments above in future filings as applicable.

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with a marked copy of the amendment to expedite our review. Please furnish a cover letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments. Please submit your response letter on EDGAR.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all

Mr. Allen L. Leverett  
Wisconsin Energy Corporation  
June 5, 2007  
Page 4

information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

If you have any questions regarding these comments, please direct them to Adam Phippen, Staff Accountant, at (202) 551-3336. In his absence, please direct your questions to me at (202) 551-3344.

Sincerely,

William Thompson  
Branch Chief