

Mail Stop 3561

August 31, 2006

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

**RE: Wisconsin Energy Corporation
Form 10-K for Fiscal Year Ended December 31, 2005
Form 10-Q for Quarterly Period Ended March 31, 2006
Form 10-Q for Quarterly Period Ended June 30, 2006
Filed March 2, 2006, May 5, 2006 and August 2, 2006
File No. 001-09057**

**Wisconsin Electric Power Company
Form 10-K for Fiscal Year Ended December 31, 2005
Form 10-Q for Quarterly Period Ended March 31, 2006
Form 10-Q for Quarterly Period Ended June 30, 2006
Filed March 6, 2006, May 5, 2006 and August 2, 2006
File No. 001-01245**

Dear Mr. Leverett:

We have reviewed your filings and have the following comments. We have limited our review of your filings to those issues we have addressed in our comments. Where indicated, we think you should revise your disclosures in future filings 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 or may not 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

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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.

Form 10-K for Fiscal Year Ended December 31, 2005

1. Please note that the following comments address certain disclosure matters regarding Wisconsin Energy Corporation on a consolidated basis. We have not issued separate comments with regard to Wisconsin Electric Power Company if applicable to its facts and circumstances. If you agree to a revision we would also expect you to make a revision in the filings of Wisconsin Electric Power Company as applicable. Please confirm to us your intention to do so.

Item 8. Financial Statements and Supplementary Data, page 79

Consolidated Income Statements, page 79

2. In future filings please separately state on the face or in the notes to the financial statements the items and their amounts included in the other income and deductions, net line item. In that regard, we note your disclosure regarding other income and deductions, net on page 46. Please also separately present your equity in earnings of unconsolidated subsidiaries on the face of your income statements. Please refer to Rule 5-04 of Regulation S-X.

Consolidated Statements of Cash Flows, page 82

3. Please tell us how you have treated cash flows from discontinued operations in the statement. If you have excluded cash flows from discontinued operations, please tell us your basis for doing so. Please refer to paragraph 26 of SFAS 95 and footnote 10 thereto.

Notes to Consolidated Financial Statements, page 86

Note I – Nuclear Operations, page 100

4. With respect to the investments of your Nuclear Decommissioning Trust Fund please disclose in future filings total gains for securities with net gains and total losses for securities with net losses by major security type for each period presented and information about the contractual maturities of debt securities as of

the most recent balance sheet date. Please refer to paragraphs 19 and 20 of SFAS 115.

Note J – Common Stock, page 101

5. Please tell us whether the restricted net assets of consolidated and unconsolidated subsidiaries and your equity in undistributed earnings of 50 percent or less owned investees accounted for by the equity method together exceed 25 percent of consolidated net assets as of the end of the most recent fiscal year. In future filings please disclose the amount of restricted net assets of consolidated and unconsolidated subsidiaries as of the most recent balance sheet when restricted net assets exceed 25 percent of consolidated net assets. Please refer to Rule 4-08(e)(3)(ii) of Regulation S-X.

Controls and Procedures, page 121

6. You state that your disclosure controls and procedures were effective in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed in the reports you file and submit under the Exchange Act. In future filings, please revise to clarify, if true, that your officers concluded that your disclosure controls and procedures are also effective to ensure that information required to be disclosed in the reports that you file or submit under the Exchange Act is accumulated and communicated to your management, including your principal executive and principal financial officer, to allow timely decisions regarding required disclosure. Please refer to Exchange Act Rule 13a-15(e).

Form 10-Q for Quarter Ended June 30, 2006

7. Please address the comments above as applicable in Forms 10-Q as well. Please also revise future filings as applicable to comply with paragraph 10(a)(3) of Rule 10-01.

Notes to Consolidated Condensed Financial Statements, page 7

Note 4 – Common Equity, page 8

8. Please tell us whether stock-based compensation expense and related tax benefits related to stock option awards disclosed on page 9 includes amounts related to restricted stock and performance share awards. If so, please clarify your disclosure in future filings. If not, please disclose in future filings compensation

expense and related tax benefits for restricted stock and performance share awards for each period presented. In addition, in future filings please disclose the amount of compensation cost related to nonvested restricted stock and performance share awards not yet recognized and the weighted average period over which it is expected to be recognized. Please refer to paragraphs A240g. and A240h. of SFAS 123(R).

9. Please tell us how you are accounting for performance share awards that will be settled in common stock or cash and performance share awards that will be settled in cash. In doing so, tell us how you compute compensation cost recognized in each period and how you classify each type of performance award in your balance sheet.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments. Please file your response letter on EDGAR as a correspondence file.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings to be certain that the filings include all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment 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.

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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, direct your questions to William Thompson, Assistant Chief Accountant, at (202) 551-3344. Any other questions may be directed to me at (202) 551-3849.

Sincerely,

James A. Allegretto
Sr. Asst. Chief Accountant