

Martin Susan H.  
Form 3  
March 09, 2012

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

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**INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,  
Section 17(a) of the Public Utility Holding Company Act of 1935 or Section  
30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *		2. Date of Event Requiring Statement	3. Issuer Name <b>and</b> Ticker or Trading Symbol	
Â Martin Susan H.		(Month/Day/Year)	WISCONSIN ENERGY CORP [WEC]	
(Last)	(First)	(Middle)	03/01/2012	
231 WEST MICHIGAN STREET			4. Relationship of Reporting Person(s) to Issuer	5. If Amendment, Date Original Filed(Month/Day/Year)
(Street)			(Check all applicable)	
MILWAUKEE, Â WI Â 53203			<input type="checkbox"/> Director <input type="checkbox"/> 10% Owner	6. Individual or Joint/Group Filing(Check Applicable Line)
(City)	(State)	(Zip)	<input checked="" type="checkbox"/> Officer <input type="checkbox"/> Other	<input checked="" type="checkbox"/> Form filed by One Reporting Person
			(give title below) (specify below)	<input type="checkbox"/> Form filed by More than One Reporting Person
			Executive VP & General Counsel	

**Table I - Non-Derivative Securities Beneficially Owned**

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	2,009.8479	D	Â
Common Stock	3,022.887 <sup>(1)</sup>	I	ERSP

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly. SEC 1473 (7-02)

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.**

**Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of	5. Ownership Form of Derivative	6. Nature of Indirect Beneficial Ownership (Instr. 5)
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(4) One-for-one.

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**Remarks:**

ExhibitÂ List:Â Â ExhibitÂ 24Â -Â PowerÂ ofÂ Attorney

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.