	10-18-2	2002	
ARD 1545 ABME-0787/E20010190		T	
To The Honorable Commissioner o	f Patents and Haussian	758	
1. Name of conveying party(ies):	10/15-02	2. Name and address of receiving party(ies):	
Waymon A. Melvin, Jr. First Assignor	August 12, 2002 Date of Execution	Name: ABB Inc.	
Lars A. Lindqvist Second Assignor	August 12, 2002 Date of Execution	Street Address: 501 Merritt 7 City: Norwalk	
Charles Cunningham, Jr.	August 12, 2002	State Connecticut ZIP 06856	
Third Assignor	Date of Execution	Additional name(s) & address attached? ( )YES (x )NO	
Michael A. Murphy Fourth Assignor	August 12, 2002	3. Nature of Conveyance (check only one):	
C C			
Kenneth C. Shuey Fifth Assignor	August 12, 2002 Date of Execution	(x) New Assignment ( ) Merger   ( ) License Agreement ( ) Security Agreement   ( ) Change of Name ( ) Other:	
Sixth Assignor	Date of Execution	( )Cross-reference of Assignment filed in United States Application No/, recorded on at	
Additional name(s) of conveying party(	es) attached? () YES (x) NO	Reel No and Frame No	
4. Identification of Application nu	mber(s), patent number(s) OR o	date of execution of application to which assignment refers:	
Application Nos.: 10/217,397	Patent Nos.:	Date application was signed by the first named executing inventor	
		(Fill-in this date only if assignment is filed together with a new application)	
5. Name and address of party to v concerning documents should be n		6. Total number of applications and patents involved: <u>1</u>	
Name: <b>Steven B. Samuels</b> WOODCOCK WASHBURN LLP One Liberty Place - 46th Floor Philadelphia, Pennsylvania 19103-7301 215-568-3100		7. Total fee (37 CFR 3.41):\$40.00 (x) Enclosed () Authorized to be charged to Deposit Account Number 23-3050	
		8. Please charge any deficiency or credit any overpayment to Deposit Account Number 23-3050	
	DO NOT USE	E THIS SPACE	
the original document. Steven B. Samuels/Reg. No. Name of Person Signing/Reg. No.	37,711 Alin Signa	ion is true and correct and any attached copy is a true copy of 10 2 02 nature Date th document and additional pages attached thereto: 7	
Mail documents to be recorded with required		Pages attained motores	
/17/2002 GT0N11 00000132 10217397	Commissioner of Pat Box Assi	itents and Trademarks signments 1, D.C. 20231	

PATENT REEL: 013382 FRAME: 0527

## DOCKET NO.: ABME-0787/E20010190/AICMEL

(Pending Application; Serial No. Unknown)

## ASSIGNMENT

WHEREAS, we Waymon A. Melvin, Jr.; Lars A. Lindqvist; Charles Cunningham, Jr.; Michael A. Murphy; Kenneth C. Shuey, hereinafter referred to as the assignors, residing respectively at 4148 Landover Lane, Raleigh, North Carolina 27616; 105 Thorncrest Drive, Apex, North Carolina 27539; 4500 Wingate Drive, Raleigh, North Carolina 27609; 7329 Barberry Court, Raleigh, North Carolina 27615; and 4516 Laid Back Lane, Zebulon, North Carolina 27597 are the joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Case No. ABME-0787/E20010190/AICMEL, entitled ELECTRONIC METER WITH ENHANCED THERMALLY MANAGED COMMUNICATIONS SYSTEMS AND METHODS; and

WHEREAS, **ABB INC.**, hereinafter referred to as the assignee, of **501 Merritt 7, Norwalk, Connecticut 06856**, a corporation of **Delaware**, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of our employment by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to

> PATENT REEL: 013382 FRAME: 0528

## DOCKET NO.: ABME-0787/E20010190/AICMEL

sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, we hereby authorize our attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

We further authorize and direct our attorneys to insert below\* the serial number and filing date of said application now identified as Case No. **ABME-0787/E20010190/AICMEL** as soon as the same shall have been made known to them by the United States Patent Office.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

8-12.02	Waymon A. Mel- A Waymon A. Melvin, Ir.	(L.S.)
Date	Waymon A. Melvin, Jr.	
STATE OF North Carolin		
COUNTY OF Wake	: SS :	
On this $12^{\text{th}}$ da	ny of <u>August</u>	, year of <b>2002</b> ,
before me personally came the above	named Wour mon A. Me	Juin, JR.
before me personally came the above to me personally known and known to	me to be the same individual who	executed the foregoing
assignment, and who acknowledged to		

free will for the use and purposes therein set forth.



my commission expires: 01/02/06

PATENT REEL: 013382 FRAME: 0529

8-12-02

(L.S.) Lars A. Lindqvist

Date

STATE OF <u>North Carolina</u>: : SS COUNTY OF <u>Wake</u>:

On this <u>12</u><sup>th</sup> day of <u>Aug uSt</u>, year of <u>2009</u>, before me personally came the above named <u>Lates A. Lindquist</u>

to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



my commission expires: 01/02/06

	Chia.	12,2002	Ć
Date	J		Charle

Lusles Curring and es Cunningham, Jr. (L.S.)

STATE OF	North	Carolina		
			: 5	SS
COUNTY OF	Wa	ike		

On this <u>12</u> day of <u>August</u>, year of <u>2009</u>, before me personally came the above named <u>Charles Curning ham, Jr</u>. to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



Notary Public

my commission expires: 01/02/06

- 4 -

PATENT **Joint Inventors** 

8/12/02 <u>Michael a. Murphy</u> (L.S.) Michael A. Murphy

Date

STATE OF North Carolina : SS COUNTY OF \_\_ Wake

On this <u>10</u> day of <u>August</u>, year of before me personally came the above named <u>Michael A. Murphy</u> \_\_\_\_\_, year of **2003**, to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own free will for the use and purposes therein set forth.



Jamie Mutuggey Notary Public My commission expires: 01/02/06

## DOCKET NO.: ABME-0787/E20010190/AICMEL

PATENT Joint Inventors

8/12/02 Aun (L.S.)
Date Kenneth C. Shuey
STATE OF North Carolina:
COUNTY OF Wake :
On this 12 <sup>th</sup> day of <u>August</u> , year of 2002, before me personally came the above named <u>Kenneth C. Shuey</u>
before me personally came the above named Kenneth C. Shvey
to me personally known and known to me to be the same individual who executed the foregoing assignment, and who acknowledged to me that execution of the same was of that person's own
free will for the use and purposes therein set forth.
NOTARY *** PUBLIC OUNTY The above assignment covers application Serial No. 10/217,397 filed on August 13 vear of <sup>2002</sup>
Admie Markholy
*** Votary Public
PUBLIC My connission expires: 01/02/06
The COUNTY My Commission expires: 01/02/06
*The above assignment covers application Serial No.
*The above assignment covers application Serial No. 10/217,397, filed on <u>August 13</u> , year of <u>2002</u> .
The above insertion made by me this <sup>2nd</sup> day of
October, year of 2002.
Frank Kannald
of WOODCOCK WASHBURN LLP
Name: Steven B. Samuels

Registration No. 37,711

- 6 -

PATENT REEL: 013382 FRAME: 0533

RECORDED: 10/02/2002