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Atty Docket No. 060825-0337

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Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Joe H. Chow  
Xuan Wei  
Bruce Fardenesh  
Abdel-Aty EdrisAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment

Merger

Security Agreement

Change of Name

Other

Execution Date: 8/30/04, 9/13/04, 11/15/04, 8/14/04

## 2. Name and address of receiving party(ies):

Name: Electric Power Research Institute, Inc.Address: 3412 Hillview Ave.  
Palo Alto, CA 94304

Country (if other than USA):

4. Application number(s) or patent number(s): 10/882,323

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s) -

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

MORGAN, LEWIS & BOCKIUS LLP  
2 Palo Alto Square  
3000 El Camino Real, Suite 700  
Palo Alto, California 94306

## 6. Number of applications and patents involved:

17. Total fee (37 CFR 3.41):.....\$ 40.00  
Please charge to the deposit account listed in Section 8.

## 8. Deposit account number:

50-0310

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Kirk Gottlieb

Name of Person Signing

42,596

Reg. No.

Signature

April 28, 2005

Date

Total number of pages including cover sheet:

7Mail documents to be recorded with required cover sheet information to:  
Mail Stop Assignment Recordation Services  
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CH \$40.00 600310 10882323

MORGAN, LEWIS &amp; BOCKIUS LLP DOCKET NO. 060825-0337-US

JOINT

## ASSIGNMENT

WHEREAS, WE, Joe H. Chow, a citizen of the United States of America residing at 58 Heritage Parkway, Scotia, New York 12302, Xuan Wei, a citizen of China residing at 2204 1st Street, Rm 2, Troy, New York 12180, Bruce Fardanesh, a citizen of the United States of America residing at 5 Corn Mill Ct., Upper Saddle River, New Jersey 07458 and Abdel-Aty Edris, a citizen of the United States of America residing at 1316 Miette Way, Sunnyvale, California 94087, ASSIGNORS, are the inventors of the invention in POWER FLOW CONTROLLER RESPONSIVE TO POWER CIRCULATION DEMAND FOR OPTIMIZING POWER TRANSFER for which we have executed an application for a Patent of the United States

2849 Lexington Ave., N.; Roseville, MN 55113

- ☒ which is executed on ☒ even date herewith or ☐  
☒ which is identified by Morgan, Lewis & Bockius LLP docket no. 060825-0337-US  
☒ which was filed on June 29, 2004, Application No. 10/882,323

and WHEREAS, Electric Power Research Institute, Inc., ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, 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, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

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 or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree 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 HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date AUG 30, 2004, 2004 Joe H. Chow L.S.  
 Date Sep. 13, 2004, 2004 Xuan Wei L.S.  
 Date \_\_\_\_\_, 2004 Bruce Fardanesh L.S.  
 Date \_\_\_\_\_, 2004 Abdel-Aty Edris L.S.

State of New York )  
 County of Rensselaer ) SS.:

On August 30, 2004, before me, Eleanor F. Meyer, Notary Public, personally appeared Joe H. Chow, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

Eleanor F. Meyer - Notary Public

ELEANOR F. MEYER  
 Notary Public, State of New York

Residing in Albany County  
 Commission Expires Mar. 30, 2007

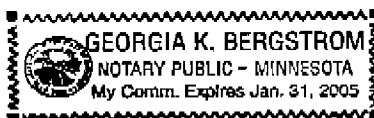
4609048 2007

MORGAN, LEWIS & BOCKIUS LLP DOCKET NO. 060825-0337-US

State of Mn )  
County of Ramsey ) SS.:

On Sept 13, 2004, before me, Georgia Bergstrom Notary Public, personally appeared XW, 9/13/04  
known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that  
he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon  
behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal



Georgia K. Bergstrom

State of )  
County of ) SS.:

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_, Notary Public, personally appeared Bruce Fardanesh,  
personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me  
that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon  
behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

State of )  
County of ) SS.:

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_, Notary Public, personally appeared Abdel-Aty Edris,  
personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me  
that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon  
behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

JOINT

ASSIGNMENT

WHEREAS, WE, Joe H. Chow, a citizen of the United States of America residing at 58 Heritage Parkway, Scotia, New York 12302, Xuan Wei, a citizen of China residing at 2204 14th Street, Fl. 2, Troy, New York 12180, Bruce Fardanesh, a citizen of the United States of America residing at 5 Corn Mill Ct., Upper Saddle River, New Jersey 07458 and Abdel-Aty Edris, a citizen of the United States of America residing at 1316 Miette Way, Sunnyvale, California 94087, ASSIGNORS, are the inventors of the invention in POWER FLOW CONTROLLER RESPONSIVE TO POWER CIRCULATION DEMAND FOR OPTIMIZING POWER TRANSFER for which we have executed an application for a Patent of the United States

- ☒ which is executed on ☒ even date herewith or ☐  
☒ which is identified by Morgan, Lewis & Bockius LLP docket no. 060825-0337-US  
☒ which was filed on June 29, 2004, Application No. 10/882,323

and WHEREAS, Electric Power Research Institute, Inc., ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, 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, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

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 or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to the said ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant and agree 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 HEREBY further covenant and agree that we will communicate to the said ASSIGNEE, its successors, legal representatives and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, reissue and foreign applications, make all rightful oaths, and generally do everything possible to aid the said ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper protection for said invention in all countries.

IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date	_____	2004	_____	L.S.
			Joe H. Chow	
Date	_____	2004	_____	L.S.
			Xuan Wei	
Date	11/15/04	2004	_____	L.S.
			Bruce Fardanesh	
Date	_____	2004	_____	L.S.
			Abdel-Aty Edris	

State of \_\_\_\_\_ )  
 ) SS.:  
 Country of \_\_\_\_\_ )

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_, Notary Public, personally appeared Joe H. Chow, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

MORGAN, LEWIS &amp; BOCKIUS LLP DOCKET NO. 060825-0337-US

State of )  
 ) SS.:  
County of )

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_, Notary Public, personally appeared Xuan Wei, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

State of New York )  
 ) SS.:  
County of Queens )

On November 15, 2004, before me, Diana Andre, Notary Public, personally appeared Bruce Fardanesh, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

DIANA ANDRE  
NOTARY PUBLIC, STATE OF NEW YORK  
NO. 01AN4957847  
Qualified in Queens County  
Commission Expires Oct. 28, 2005

WITNESS my hand and official seal

Diana Andre  
\_\_\_\_\_  
State of )  
 ) SS.:  
County of )

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_, Notary Public, personally appeared Abdel-Aty Edris, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

\_\_\_\_\_

JOINT

## ASSIGNMENT

WHEREAS, WE, Joe H. Chow, a citizen of the United States of America residing at 58 Heritage Parkway, Scotia, New York 12302, Xuan Wei, a citizen of China residing at 2204 14th Street, Fl. 2, Troy, New York 12180, Bruce Fardanesh, a citizen of the United States of America residing at 5 Corn Mill Ct., Upper Saddle River, New Jersey 07458 and Abdel-Aty Edris, a citizen of the United States of America residing at 1316 Miette Way, Sunnyvale, California 94087, ASSIGNORS, are the inventors of the invention in POWER FLOW CONTROLLER RESPONSIVE TO POWER CIRCULATION DEMAND FOR OPTIMIZING POWER TRANSFER for which we have executed an application for a Patent of the United States

- ☒ which is executed on ☒ even date herewith or ☐  
☒ which is identified by Morgan, Lewis & Bockius LLP docket no. 060825-0337-US  
☒ which was filed on June 29, 2004, Application No. 10/882,323

and WHEREAS, Electric Power Research Institute, Inc., ASSIGNEE, is desirous of obtaining our entire right, title and interest in, to and under the said invention and the said application:

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to us in hand paid, 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, unto the said ASSIGNEE, its successors, legal representatives and assigns, our entire right, title and interest in, to and under the said invention, and the said United States application and all divisions, renewals and continuations thereof, and all Patents of the United States which may be granted thereon and all reissues and extensions thereof; and all applications for industrial property protection, including, without limitation, all applications for patents, utility models, and designs which may hereafter be filed for said invention in any country or countries foreign to the United States, together with the right to file such applications and the right to claim for the same the priority rights derived from said United States application under the Patent Laws of the United States, the International Convention for the Protection of Industrial Property, or any other international agreement or the domestic laws of the country in which any such application is filed, as may be applicable; and all forms of industrial property protection, including, without limitation, patents, utility models, inventors' certificates and designs which may be granted for said invention in any country or countries foreign to the United States and all extensions, renewals and reissues thereof;

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IN TESTIMONY WHEREOF, We hereunto set our hands and seals the day and year set opposite our respective signatures.

Date	_____	2004	_____	L.S.
			Joe H. Chow	
Date	_____	2004	_____	L.S.
			Xuan Wei	
Date	_____	2004	_____	L.S.
			Bruce Fardanesh	
Date	August 24	2004	_____	L.S.
			Abdel-Aty Edris	

State of )  
          ) SS.:  
County of )

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_, Notary Public, personally appeared Joe H. Chow, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

MORGAN, LEWIS &amp; BOCKIUS LLP DOCKET NO. 060825-0337-US

State of )  
 ) SS.:  
County of )

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_ Notary Public, personally appeared Xuan Wei, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

State of )  
 ) SS.:  
County of )

On \_\_\_\_\_, 2004, before me, \_\_\_\_\_ Notary Public, personally appeared Bruce Fardanesh, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

State of California )  
 ) SS.:  
County of Santa Clara )

On August 24, 2004, before me, York Huang, Notary Public, personally appeared Abdel-Ary Edris, personally known to me on the basis of satisfactory evidence to be the person(s) whose name(s) is subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal

