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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2586734

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date	
WIND POWER HOLDINGS, INC.	07/01/2011	

RECEIVING PARTY DATA

Name:	NORTHERN POWER SYSTEMS UTILITY SCALE, INC.	
Street Address:	29 PITMAN ROAD	
City:	BARRE	
State/Country:	VERMONT	
Postal Code:	05641	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14053235

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	08775-027USD2 - ASSIGN 4
NAME OF SUBMITTER:	LAWRENCE H. MEIER
Signature:	/Lawrence H. Meier/
Date:	10/22/2013

Total Attachments: 7

PATENT REEL: 031453 FRAME: 0614 OP \$40.00 140

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PATENT REEL: 031453 FRAME: 0615

ASSIGNMENT AGREEMENT

This Assignment Agreement is entered into as of this 1st day of July, 2011 (the "Effective Date") by and between Northern Power Systems Utility Scale, Inc., a Delaware corporation ("NPSUS") and Wind Power Holdings, Inc., a Delaware corporation ("WPHI").

WHEREAS, pursuant to a Transfer and Contribution Agreement dated as of the Effective Date by and among NPSUS, WPHI and Northern Power Systems, Inc., WPHI has agreed to assign to NPSUS the patents and patent applications listed on <u>Schedule A</u> attached hereto (collectively, the "Patent Assets");

WHEREAS, NPSUS and WPHI have entered into a certain Bill of Sale, dated as of the Effective Date, confirming the transfer of assets described in the above-referenced Transfer and Contribution Agreement; and

WHEREAS, WPHI wishes to transfer and assign to NPSUS all right, title and interest in and to the Patent Assets.

NOW, THEREFORE, WPHI and NPSUS agree as follows:

- 1. For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, WPHI hereby sells, assigns, transfers and sets over to NPSUS the aforesaid Patent Assets, any inventions claimed in said Patent Assets, any continuation and divisional patent applications claiming priority on patent applications included in the Patent Assets, all claims of priority on patent applications included in the Patent Assets, all corresponding foreign counterparts of patent applications and patents included in the Patent Assets, any renewals, reissue, reissues, or extensions of said Patent Assets already granted and which may be granted, any certificates of reexamination already granted and which may be granted the same to be held and enjoyed by WPHI for its own use and enjoyment, and for the use and enjoyment of its successors, assigns or other legal representatives, to the end of the term or terms for which said Patent Assets are or may be granted, reissued, renewed or extended as fully and entirely as the same would have been held and enjoyed by WPHI, if this assignment and sale had not been made; together with all claims for damages by reason of past infringement of said Patent Assets, with the right to sue for, and collect the same for its own use and behalf, and for the use and behalf of its successors, assigns or other legal representatives.
- 2. WPHI hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all Letter Patents of the United States on inventions claimed in the Patent Assets to NPSUS as assignee of the entire interest, and hereby covenants that WPHI has full right to convey the entire interest herein assigned, and hereby represents that WPHI has not executed, and will not execute, any agreements in conflict herewith.

PATENT REEL: 031453 FRAME: 0616 IN WITNESS WHEREOF, WPHI and NPSUS, by their duly authorized representatives, have executed this Assignment Agreement.

WIND POWER HOLDINGS, INC.

By:

Douglas S. Prince Chief Financial Officer

NORTHERN POWER SYSTEMS UTILITY SCALE, INC.

By:

Elliot J. Mark

Vice President and General Counsel

SCHEDULE A

Issued Patents					
Docket No.	Title	Country	Patent No.	Issue Date	Patent Expiration Date
08775- 003USU1	Control System for Power Converter and Method of Controlling Operation of Power Converter	US	6,693,409	17-Feb-04	7/23/2022
08775- 003USC1	Control System for Power Converter and Method of Controlling Operation of Power Converter	US	7,145,266	5-Dec-06	7/23/2022
08775- 003CAU1	Control System for Power Converter and Method of Controlling Operation of Power Converter	CA	2,454,723	20-Jul-10	7/23/2022
08775- 003JPU1	Control System for Power Converter and Method of Controlling Operation of Power Converter	JР	4,362,063	21-Aug-09	7/23/2022
08775- 011USU1	Direct Drive Configuration For a Wind Turbine Generator	US	7,431,567	7-Oct-08	10/9/2025
08775- 011USC1	Wind Turbine Having A Direct-Drive Drivetrain	US	7,891,941	22-Feb-11	
08775- 017USU1	Lightning Protection System for Direct Drive Wind Turbine	US	7,377,750	27-May-08	6/15/2026
08775- 018USU1	Parallel Multiphase Switching Power converters With Synchronous Phase Shifted Switching Using Transformer Averaging	US	7,692,938	6-Apr-10	1/31/2028
08775- 019USU1	05-182 Low Loss Control of DC-DC Converters In An Energy Storage System	us	7,990,117	2-Aug-11	11/11/2029
08775- 025USU1	Rotor Configuration For A Direct Drive Wind Turbine Or A Low Speed Motor	US	7,355,309	8-Apr-08	9/1/2025
08775- 026USU1	Frequency Control and power Balancing In Disturbed Power Inverter System and Method	US	7,333,352	19-Feb-08	6/29/2025
08775- 026USC1	Frequency Control and power Balancing In Disturbed Power Inverter System and Method	US	7,492,617	17-Feb-09	6/29/2025
08775- 040USU1	Direct Drive Wind Turbine	US	7,075,192	11-Jul-06	7/7/2024
08775- 040USD1	Direct Drive Wind Turbine	US	7,119,453	10-Oct-06	4/19/2024
08775- 040USD3	Direct Drive Wind Turbine	US	7,109,600	19-Sep-06	4/19/2024

PATENT REEL: 031453 FRAME: 0618

Docket No.	Title	Country	Applic No.	Filing Date	Status
08775- 003EUU1	Control System for Power Converter and Method of Controlling Operation of Power Converter	EU	2756607.4	23-Jul-02	Pending
08775- 003EUD1	Control System for Power Converter and Method of Controlling Operation of Power Converter	EU	10183406.7	30-Sep-10	Pending
08775-0000008	System and Method for Frequency Control and Power Balancing in a Disturbed Power Inverter Environmental	US			Unfiled
08775- 011USD1	Wind Turbine Having A Direct-Drive Drivetrain	US	13/032,173	22-Feb-11	Pending
08775- 011USD2	Wind Turbine Having A Direct-Drive Drivetrain	US	13/032,182	22-Feb-11	Pending
08775- 018CNU1	Parallel Multiphase Switching Power converters With Synchronous Phase Shifted Switching Using Transformer Averaging	CN		6-Sep-07	Pending
08775- 018EUU1	Parallel Multiphase Switching Power converters With Synchronous Phase Shifted Switching Using Transformer Averaging	EU		6-Sep-07	Pending
08775- 018JPU1	Parallel Multiphase Switching Power converters With Synchronous Phase Shifted Switching Using Transformer Averaging	JP		6-Sep-07	Pending
08775- 021USU1	05-129 Generator X/R Ratio Reduction By Use Of A Semiconductor	US	12/483,546	12-Jun-09	Pending
08775- 021WOU1	05-129 Generator X/R Ratio Reduction By Use Of A Semiconductor	wo	US10/37984	9-Jul-10	Pending
08775- 023USU1	06-246 Increase of Current Rating Based on Thermal State Modeling	US			Unfiled
08775- 027USU1	Modular Power Electronic Converter System and Method Thereof	US	11/952,805	7-Dec-07	Pending
08775- 027CAU1	Modular Power Electronic Converter System and Method Thereof	CA		7-Dec-07	Pending

08775- 027CNU1	Modular Power Electronic Converter System and Method Thereof	CN		7-Dec-07	Pending
08775- 027EUU1	Modular Power Electronic Converter System and Method Thereof	EP		7-Dec-07	Pending
08775- 027HKU1	Modular Power Electronic Converter System and Method Thereof	HK	10108622.7	7-Dec-07	Pending
08775- 029USU1	Variable Speed Operating System and Method Of Operation For Wind Turbines	US	11/928,365	30-Oct-07	Pending
08775- 040CAU1	Direct Drive Wind Turbine	CA	2,563,531	19-Apr-05	Pending
08775- 040CNU1	Direct Drive Wind Turbine	CN	580011501.9	19-Apr-05	Pending
08775- 040HKU1	Direct Drive Wind Turbine	HK	9110334.5	5-Nov-09	Pending
08775-040INU1	Direct Drive Wind Turbine	ĺΝ	5825/DELNP/06	19-Apr-05	Pending
08775- 043USU1	Method and System for Servicing a Horizontal-Axis Wind Power Unit	us	13/240,756	22-Sep-11	Pending
08775- 043WOU1	Method and System for Servicing a Horizontal-Axis Wind Power Unit	WO	U\$2011/052879	23-Sep-11	Pending
08775- 044USU1	Electromagnetic Rotary Machines Having Modular Active-Coil Portions and Modules for Such Machines	US	13/240,768	22-Sep-11	Pending
08775- 044WOU1	Electromagnetic Rotary Machines Having Modular Active-Coil Portions and Modules for Such Machines	WO	US2011/052882	23-Sep-11	Pending
08775- 045USU1	Energy Storage Connection System	US	12/325,814	1-Dec-08	Pending
08775- 054USU1	Method and Apparatus For Permanent Magnet Attachment In Electromechanical Machine	US	12/543,153	18-Aug-09	Pending
08775- 054WOU1	Method and Apparatus For Permanent Magnet Attachment In Electromechanical Machine	WO	US10/45836	18-Aug-10	Pending
08775- 055USU1	Method and System for Maintaining a Machine Having a Rotor and a Stator	US	13/240,779	22-Sep-11	Pending

08775- 055WOU1	Method and System for Maintaining a Machine Having a Rotor and a Stator	WO	US2011/052883	23-Sep-11	Pending
08775- 058USU1	Sectionalized Electromechanical Machines Having Low Torque Ripple and Log Cogging Torque Characteristics	US	13/240,731	22-Sep-11	Pending
08775- 058WOU1	Sectionalized Electromechanical Machines Having Low Torque Ripple and Log Cogging Torque Characteristics	WO	US2011/052893	23-Sep-11	Pending
08775- 075USP1	Wind Power Unit Having An Underslung Transformer	US	61/421,041	8-Dec-10	Pending
08775- 076USU1	Magnetic Devices and Transformer Circuits Made Therewith	US	13/154,942	7-Jun-11	Pending
08775- 076WOU1	Magnetic Devices and Transformer Circuits Made Therewith	WO	US2011/052302	20-Sep-11	Pending
08775- 077USP1	Method and System For Controlling A Power Converter During Voltage Faults or Surges	US	61/422,451	13-Dec-10	Pending
08775- 077USP2	Method and System For Controlling A Power Converter During Voltage Faults or Surges	US	61/425,510	21-Dec-10	Pending
08775- 078USU1	Method For Servicing A Wind Power Unit	US	-		Unfiled
08775- 079USU1	Module-Handling Tool For Installing/Removing Modules Into/From an Electromagnetic Rotary Machine	US	13/240,788	22-Sep-11	Pending
08775- 079WOU1	Module-Handling Tool For Installing/Removing Modules Into/From an Electromagnetic Rotary Machine	wo	US2011/052885	23-Sep-11	Pending
08775- 082USP1	High Yaw Error Load Control	US			Unfiled
08775- 083USP1	Magnetic Strip rotational Sensor	US			Unfiled

08775- 084USP1	Apparatus For Maintaining Air-Gap Spacing In Large Diameter, Low- Speed Motors and Generators	US	61/422,486	13-Dec-10	Pending
08775- 086USU1	Method and Apparatus for Rotor Cooling in an Electromechanical Machine	US	13/240,740	22-Sep-11	Pending
08775- 086WOU1	Method and Apparatus for Rotor Cooling in an Electromechanical Machine	WO	US2011/052892	23-Sep-11	Pending