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PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NE	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		AS	ASSIGNMENT			
CONVEYING PARTY DA	ATA	•				
		Na	Name			Execution Date
JIANMING LIAN						09/29/2015
KARANJIT KALSI						09/29/2015
RECEIVING PARTY DA	ТА					
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Property Type Application Number: 1		Number				
		1486645	14866457			
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ASSIGNMENT

WHEREAS, we, Jianming Lian, of Richland, Washington, and Karanjit Kalsi, of Richland, Washington, are co-inventors of a certain invention, as described in the following patent applications:

- U.S. Provisional Patent Application No. 62/056,212, filed on September 26, 2014, entitled "ON MARKET-BASED COORDINATION OF THERMOSTATICALLY CONTROLLED LOADS WITH USER PREFERENCE,"
- U.S. Provisional Patent Application No. 62/056,221, filed on September 26, 2014, entitled "A MARKET MECHANISM DESIGN APPROACH FOR COORDINATION OF THERMOSTATICALLY CONTROLLED LOADS WITH UNKNOWN PARAMETERS,"
- U.S. Patent Application No. <u>14/866,404</u>, filed on September 25, 2015, entitled "COORDINATION OF THERMOSTATICALLY CONTROLLED LOADS," and
- U.S. Patent Application No. <u>14/866,457</u>, filed on September 25, 2015, entitled "COORDINATION OF THERMOSTATICALLY CONTROLLED LOADS WITH UNKNOWN PARAMETERS,"

which applications are collectively referred to as "the patent applications."

WHEREAS, Battelle Memorial Institute, a corporation organized under the laws of the State of Ohio, having a place of business in the City of Richland, Washington, desires to acquire an interest therein:

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, we, Jianming Lian and Karanjit Kalsi hereby sell, assign, and transfer to Battelle Memorial Institute, the full and exclusive right, title, and interest in and to said invention, patent applications, and patent rights throughout the world, including foreign patent priority rights, the right to file and prosecute International Applications under the Patent Cooperation Treaty, and the right to file and prosecute applications under the European Patent Convention; said invention, patent applications, and letters patent in this or any foreign country, and all corresponding non-provisional applications, divisions, continuations, continuations-in-part, reissues, and extensions thereof, to be held and enjoyed by Battelle Memorial Institute, for its own use and benefit, and for its successors and assigns to the full end of the term for which letters patent may be granted

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by the United States or any foreign country, as fully and entirely as the same would have been held by us had this assignment and sale not been made, and covenant that we have full right so to do, and agree that we will communicate to Battelle Memorial Institute, or its successors and assigns, any facts known to us respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing, and reissue applications, make all rightful oaths, and do everything possible to aid Battelle Memorial Institute, its successors, and assigns to obtain and enforce proper patent protection for said invention in the United States or any foreign country.

We confirm that, at the time the invention was made, we were under an obligation to assign the invention to Battelle Memorial Institute.

We hereby grant the law firm of Klarquist Sparkman, LLP, the power to insert on this Assignment any further information that may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office, for submitting and recording this document.

Executed at the place and date opposite our respective signatures below.

Jianming Lian

At <u>Richland</u>, WA (City and State) on this <u>29</u> day of <u>September</u>, 2015. STATE OF Washington COUNTY OF Benton SS.

This A day of <u>September</u>, 2015, before me personally came the above-named Jianming Lian, who executed the foregoing instrument in my presence, and who acknowledged to me that this instrument was executed by Jianming Lian's own free will for the purpose set forth therein.



My commission expires: 9/16/18

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Karáníti Kalsí

At <u>Richland</u>, WA (City and State) on this <u>29</u> day of <u>Ceptembr</u> 2015.

STATE OF Washington COUNTY OF Benton)))) SS.

This <u>29</u> day of <u>September</u>, 2015, before me personally came the above-named Karanjit Kalsi, who executed the foregoing instrument in my presence, and who acknowledged to me that this instrument was executed by Karanjit Kalsi's own free will for the purpose set forth therein.

Notary Public For State 3 67 My commission expires: 9/16/18





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