PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------|----------------|
| Frederic VITSE | 09/16/2011 |
| Craig Norman SCHUBERT | 09/14/2011 |

RECEIVING PARTY DATA

| Name: | ALSTOM TECHNOLOGY LTD | |
|-----------------|------------------------|--|
| Street Address: | Brown Boveri Strasse 7 | |
| City: | Baden | |
| State/Country: | SWITZERLAND | |
| Postal Code: | CH-5400 | |

| Name: | DOW GLOBAL TECHNOLOGIES LLC | |
|-----------------|-----------------------------|--|
| Street Address: | 2040 Dow Center | |
| City: | Midland | |
| State/Country: | MICHIGAN | |
| Postal Code: | 48674 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13981227 |

CORRESPONDENCE DATA

502430334

Fax Number: 7172375300

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 717-237-5455 Email: ksmith@mwn.com Correspondent Name: Kerri J. Smith, Paralegal

Address Line 1: 100 Pine Street P.O. Box 1166 Address Line 2:

Address Line 4: Harrisburg, PENNSYLVANIA 17108-1166

PATENT

REEL: 030859 FRAME: 0018

| ATTORNEY DOCKET NUMBER: | W09/057-0 / 27849-0012 |
|--|------------------------|
| NAME OF SUBMITTER: | Kerri J. Smith |
| Signature: | /Kerri J. Smith/ |
| Date: | 07/23/2013 |
| Total Attachments: 4 source=A3469423#page1.tif source=A3469423#page2.tif source=A3469423#page3.tif source=A3469423#page4.tif | |

PATENT REEL: 030859 FRAME: 0019

Docket Number: WO9/057-0/27849-0012-01

ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in a **METHOD FOR REDUCING REGENERATION ENERGY** for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address:

AND WHEREAS, ALSTOM Technology Ltd, a joint stock company of Switzerland, having an office at Brown Boveri Strasse 7, 5400 Baden, Switzerland (hereinafter referenced as ASSIGNEE) is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries:

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue tome with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;

AND I further agree to execute all necessary or desirable lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

AND I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any

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<u>9/16/20//</u> Date

Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

AND I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

AND I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

Witness

Witness

Frederic VITSE
9137 Fairhaven Place

Knoxville, TN 37931

United States of America

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ASSIGNMENT

WHEREAS, I, as a below named inventor, residing at the address stated next to my name, am a sole inventor (if only one name is listed below) or a joint inventor (if plural names are listed below) of certain new and useful improvements in a METHOD FOR REDUCING REGENERATION ENERGY for which application for Letters Patent of the United States of America was executed by me on the date indicated next to my name and address;

AND WHEREAS, DOW GLOBAL TECHNOLOGIES LLC, a corporation incorporated under the laws of the State of Delaware, United States of America, having an office at 2040 Dow Center, Midland, Michigan 48674, United States of America (hereinafter referenced as ASSIGNEE) is desirous of acquiring all interest in, to and under said invention, said application disclosing the invention and in, to and under any Letters Patent or similar legal protection which may be granted therefor in the United States and in any and all foreign countries;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, I, as a sole or joint inventor as indicated below, by these presents do hereby assign, sell and transfer unto the said ASSIGNEE, its successors, assigns, and legal representatives, the entire right, title and interest in the said invention, said application, including any divisions and continuations thereof, and in and to any and all Letters Patent of the United States, and countries foreign thereto, which may be granted for said invention, and in and to any priority rights and/or convention rights under the International Convention for the Protection of Industrial Property, Inter-American convention Relating to Patents, Designs and Industrial Models, and any other international agreements to which the United States of America adheres, and to any other benefits accruing or to accrue tome with respect to the filing of applications for patents or securing of patents in the United States and countries foreign thereto, and I hereby authorize and request the Commissioner of Patents to issue the said United States Patent to said ASSIGNEE, as the assignee of the whole right, title and interest thereto;

AND I further agree to execute all necessary or desirable lawful future documents, including assignments in favor of ASSIGNEE or its designee, as ASSIGNEE or its successors, assigns and legal representatives may from time-to-time present to me and without further remuneration, in order to perfect title in said invention, modifications, and improvements in said invention, applications and Letters Patent of the United States and countries foreign thereto;

AND I further agree to properly execute and deliver and without further remuneration, such necessary or desirable and lawful papers for application for foreign patents, for filing subdivisions of said application for patent, and or, for obtaining any reissue or reissues of any Letters Patent which may be granted for my aforesaid invention, as the ASSIGNEE thereof shall hereafter require and prepare at its own expense;

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AND I further agree that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to me and will testify as to the same in any interference or litigation related thereto;

AND I hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

Witness

Craig Norman SCHUBERT

Date

Thursday

220 Moss Rose Lane Lake Jackson, TX 77566 United States of America

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