#### 503770251 04/05/2016

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3816895

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
ALSTOM GRID INC.	02/06/2015

#### **RECEIVING PARTY DATA**

Name:	ALSTOM TECHNOLOGY LTD.
Street Address:	BROWN BOVERI STRASSE 7
City:	BADEN
State/Country:	SWITZERLAND
Postal Code:	5401

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15091552

#### **CORRESPONDENCE DATA**

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ATTORNEY DOCKET NUMBER:	GRIDP117USC
NAME OF SUBMITTER:	THOMAS WATSON
SIGNATURE:	/Thomas Watson/
DATE SIGNED:	04/05/2016

## **Total Attachments: 6**

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> **PATENT REEL: 038199 FRAME: 0167**

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PATENT REEL: 038199 FRAME: 0168

## ASSIGNMENT OF INVENTION AND PATENT RIGHTS

For valuable consideration, the receipt and sufficiency of which is hereby acknowledged,

ALSTOM Grid Inc., a public company, having an address at 10865 Willows Road NE, Redmond, Washington 98052 ("Assignor")

hereby sell(s), assign(s), transfer(s), and convey(s) unto <u>ALSTOM Technology Ltd.</u>, a Swiss limited liability company, having its registered offices at <u>Brown Boveri Strasse 7, CH-5401</u>
<u>Baden - Switzerland</u> ("Assignee"), all rights, title, and interests that exist today and may exist in the future in and to any and all of the following items (1) through (9) below:

- 1. all inventions claimed *and/or* described in the Patent(s) or Application(s) (collectively, the "Inventions");
- 2. any U.S., PCT, or foreign patent application(s) prepared and filed based on said inventions;
- 3. the patent(s) and patent application(s) listed in the table below (the "Application(s)");

Patent(s)/Patent Application Nos.	Country	Filing Date	Title
8,112,253	US	June 13, 2008	ENERGY MANAGEMENT SYSTEM THAT PROVIDES REAL TIME SITUATION AWARENESS OF A POTENTIAL ENERGY MANAGEMENT FAILURE
PCT/US08/70526	WO.	July 18, 2008	ENERGY MANAGEMENT SYSTEM THAT PROVIDES REAL TIME SITUATION AWARENESS OF A POTENTIAL ENERGY MANAGEMENT FAILURE
08782090.8	ЕР	July 18, 2008	ENERGY MANAGEMENT SYSTEM THAT PROVIDES REAL TIME SITUATION AWARENESS OF A POTENTIAL ENERGY MANAGEMENT FAILURE
10110166.5	HK	July 18, 2008	ENERGY MANAGEMENT SYSTEM THAT PROVIDES REAL TIME SITUATION AWARENESS OF A POTENTIAL ENERGY MANAGEMENT FAILURE
12/139,159	US	June 13, 2008	METHODS FOR ASSESSING POTENTIALLY COMPROMISING SITUATIONS OF A UTILITY COMPANY
14/231,387	US	March 31, 2014	METHODS FOR ASSESSING POTENTIALLY COMPROMISING SITUATIONS OF A UTILITY COMPANY
PCT/US08/70537	WO	July 18, 2008	ENERGY MANAGEMENT SYSTEM THAT PROVIDES A REAL TIME ASSESSMENT OF A POTENTIALLY COMPROMISING SITUATION THAT CAN AFFECT A UTILITY COMPANY

EP	July 18, 2008	ENERGY MANAGEMENT SYSTEM
		PROVIDING REAL TIME ASSESSMENT OF
		A POTENTIALLY COMPROMISING
		SITUATION AFFECTING UTILITY
		COMPANIES
HK	Tuly 18 2008	ENERGY MANAGEMENT SYSTEM
1110	July 10, 2000	PROVIDING REAL TIME ASSESSMENT OF
		A POTENTIALLY COMPROMISING
		SITUATION AFFECTING UTILITY
770		COMPANIES
US	June 13, 2008	METHODS FOR ASSESSING RELIABILITY
		OF A UTILITY COMPANY'S POWER
		SYSTEM
US	, -	METHODS FOR ASSESSING RELIABILITY
	2012	OF A UTILITY COMPANY'S POWER
		SYSTEM
WO	July 18, 2008	METHODS FOR ASSESSING POTENTIALLY
		COMPROMISING SITUATIONS OF A
		UTILITY COMPANY
EP	July 18, 2008	METHODS FOR ASSESSING POTENTIALLY
	2	COMPROMISING SITUATIONS OF A
		UTILITY COMPANY
HK	July 18, 2008	METHODS FOR ASSESSING POTENTIALLY
11,00	Jany 10, 2000	COMPROMISING SITUATIONS OF A
		UTILITY COMPANY
110	Tuna 12 2000	METHODS FOR CREATING DYNAMIC
l Op	June 13, 2008	
		LISTS FROM SELECTED AREAS OF A
		POWER SYSTEM OF A UTILITY COMPANY
US		METHODS FOR CREATING DYNAMIC
	2012	LISTS FROM SELECTED AREAS OF A
		POWER SYSTEM OF A UTILITY COMPANY
WO	July 18, 2008	METHODS FOR CREATING DYNAMIC
		LISTS FROM SELECTED AREAS OF A
		POWER SYSTEM OF A UTILITY COMPANY
EP	July 18, 2008	METHODS FOR CREATING DYNAMIC
		LISTS FROM SELECTED AREAS OF A
		POWER SYSTEM OF A UTILITY COMPANY
HK	July 18, 2008	METHODS FOR CREATING DYNAMIC
	1	LISTS FROM SELECTED AREAS OF A
1		POWER SYSTEM OF A UTILITY COMPANY
TIE	Tome 13 2009	METHODS FOR MANAGING HIGH OR LOW
no.	June 13, 2008	VOLTAGE CONDITIONS FROM SELECTED
	l'	AREAS OF A POWER SYSTEM OF A
177.0	71 10 222	UTILITY COMPANY
WO	July 18, 2008	METHODS FOR MANAGING HIGH OR LOW
Ì		VOLTAGE CONDITIONS FROM SELECTED
		AREAS OF A POWER SYSTEM OF A
		UTILITY COMPANY
EP	July 18, 2008	METHODS FOR MANAGING HIGH OR LOW
	1	VOLTAGE CONDITIONS FROM
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		SELECTED AREAS OF A POWER SYSTEM
		SELECTED AREAS OF A POWER SYSTEM OF A UTILITY COMPANY
	EP  HK  US  WO	HK July 18, 2008  US June 13, 2008  US August 21, 2012  WO July 18, 2008  EP July 18, 2008  US June 13, 2008  US October 23, 2012  WO July 18, 2008  EP July 18, 2008  EP July 18, 2008  US June 13, 2008  US July 18, 2008  US July 18, 2008

10110224.5	HK.	July 18, 2008	METHODS FOR MANAGING HIGH OR LOW
10110224.3	1.05.	July 10, 2000	VOLTAGE CONDITIONS FROM SELECTED
			AREAS OF A POWER SYSTEM OF A
			UTILITY COMPANY
12/139,118	US	June 13, 2008	ENERGY MANAGEMENT SYSTEM THAT
**			PROVIDES A REAL TIME ASSESSMENT OF
			A POTENTIALLY COMPROMISING
			SITUATION THAT CAN AFFECT A UTILITY
			COMPANY
PCT/US08/70552	WO	July 18, 2008	METHODS FOR ASSESSING RELIABILITY
			OF A UTILITY COMPANY'S POWER
OCCOCCO A A		7.1.10.000	SYSTEM
08796334.4	EP	July 18, 2008	METHODS FOR ASSESSING RELIABILITY
			OF A UTILITY COMPANY'S POWER
10109925.9	HK	T-1- 19 2009	SYSTEM  METHODS FOR ASSESSIBLE DELIABILITY
10103323.3	TIK.	July 18, 2008	METHODS FOR ASSESSING RELIABILITY OF A UTILITY COMPANY'S POWER
			SYSTEM
8,538,593	US	July 2, 2010	METHOD FOR INTEGRATING INDIVIDUAL
0,000,000	0.5	July 2, 2010	LOAD FORECASTS INTO A COMPOSITE
			LOAD FORECAST TO PRESENT A
2,			COMPREHENSIVE SYNCHRONIZED AND
			HARMONIZED LOAD FORECAST
14/012,853	US	August 28,	METHOD FOR INTEGRATING INDIVIDUAL
		2013	LOAD FORECASTS INTO A COMPOSITE
			LOAD FORECAST TO PRESENT A
			COMPREHENSIVE, SYNCHRONIZED AND
			HARMONIZED LOAD FORECAST
12/830,038	US	July 2, 2010	SYSTEM TOOLS FOR INTEGRATING
			INDIVIDUAL LOAD FORECASTS INTO A
	·	•	COMPOSITE LOAD FORECAST TO
			PRESENT A COMPREHENSIVE
			SYNCHRONIZED AND HARMONIZED
12/830,004	US	T-3 2 2010	LOAD FORECAST
12/030,004	US	July 2, 2010	METHOD FOR EVALUATING OPERATIONAL AND FINANCIAL
			PERFORMANCE FOR DISPATCHERS USING
			AFTER THE FACT ANALYSIS
12/830,011	US	July 2, 2010	SYSTEM TOOLS FOR EVALUATING
		231, 23, 2010	OPERATIONAL AND FINANCIAL
			PERFORMANCE FROM DISPATCHERS
			USING AFTER THE FACT ANALYSIS
12/830,019	US	July 2, 2010	MULTI-INTERVAL DISPATCH METHOD
			FOR ENABLING DISPATCHERS IN POWER
			GRID CONTROL CENTERS TO MANAGE
			CHANGES
12/830,023	US	July 2, 2010	MULTI-INTERVAL DISPATCH SYSTEM
4			TOOLS FOR ENABLING DISPATCHERS IN
			POWER GRID CONTROL CENTERS TO
14/601 020	170	T	MANAGE CHANGES
14/601,838	US	January 21,	MULTI-INTERVAL DISPATCH SYSTEM
	1	2015	TOOLS FOR ENABLING DISPATCHERS IN
	· ·	E	DOWED CONTROL CENTERS TO
			POWER GRID CONTROL CENTERS TO MANAGE CHANGES

12/830,042	US	July 2, 2010	METHODS THAT PROVIDE DISPATCHERS IN POWER GRID CONTROL CENTERS WITH A CAPABILITY TO MANAGE CHANGES
12/830,049	US	July 2, 2010	SYSTEM TOOLS THAT PROVIDES DISPATCHERS IN POWER GRID CONTROL CENTERS WITH A CAPABILITY TO MAKE CHANGES
61/954,563	US	March 17, 2014	EBOSS- ETERRA BUSINESS OPERATION AND SUPERVISION SUITE
61/954,565	US	March 17, 2014	EBOSS- ETERRA OUTAGE AND SWITCH MANAGEMENT MODULE
61/333,838	US	May 12, 2010	GENERALIZED GRID SECURITY FRAMEWORK
61/606,071	US	March 2, 2012	DISPATCHING VEHICLE-TO-GRID ANCILLARY SERVICES WITH DISCRETE SWITCHING
61/764,463	US	February 13, 2013	A SYNCHROPHASOR BASED FAULT LOCATION METHOD FOR DISTRIBUTION SYSTEMS

- 4. all rights with respect to the Invention, including all United States patents or other governmental grants or issuances that may be granted with respect to the Inventions or from any direct or indirect divisionals, continuations, continuations-in-part, non-provisionals or other patent applications claiming priority rights from the Application(s) ("Potential Patents");
- 5. all reissues, reexaminations, extensions, or registrations of the Potential Patents;
- 6. all non-United States patents, patent applications, and counterparts relating to any or all of the Invention, the Application(s), and the Potential Patents, including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances ("Foreign Rights"), and including the right to file foreign applications directly in the name of Assignee, its successors and assigns;
- 7. all rights to claim priority rights deriving from the Application(s);
- 8. all causes of action and remedies related to any or all of the Application(s), the Invention, the Potential Patents, and the Foreign Rights (including, without limitation, the right to sue for past, present, or future infringement, misappropriation or violation of rights related to any of the foregoing and the right to collect royalties and other payments under or on account of any of the foregoing); and
- 9. any and all other rights and interests arising out of, in connection with, or in relation to the Application(s), the Invention, Potential Patents, and the Foreign Rights.

Assignor will not sign any document or do any act conflicting with this Assignment, and, without further compensation, will sign all documents and do such additional acts as Assignee, its successors, legal representatives, and assigns deem necessary or desirable to perfect

enjoyment of the Rights, conduct proceedings regarding the Rights (including any litigation or interference proceedings), or perfect or defend title to the Rights. Assignor requests the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models, or other governmental grants or issuances that may be granted upon any of the Rights in the name of the Assignee, as the assignee to the entire interest therein.

Assignor hereby authorizes, requests and grants power to Assignee and Assignee's authorized representative to insert on this Assignment the filing date(s) and Patent Application Numbers in the table above when known.

The terms and conditions of this Assignment will inure to the benefit of Assignee, its successors, legal representatives, and assigns and will be binding upon Assignor, their successors, legal representatives and assigns.

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Doug Macdonald, Unit Managing Director

on behalf of ALSTOM Grid Inc.

Date:

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**RECORDED: 04/05/2016**