

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
KEVIN FAIRBAIRN	12/19/2018
DENIS SHAW	12/19/2018
DANIEL CARTER	12/21/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ADVANCED ENERGY INDUSTRIES, INC.
<b>Street Address:</b>	1625 SHARP POINT DRIVE
<b>City:</b>	FORT COLLINS
<b>State/Country:</b>	COLORADO
<b>Postal Code:</b>	80525
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	16193790
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(720)536-4910
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	720.536.4900
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<b>Correspondent Name:</b>	NEUGEBOREN O'DOWD PC
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<b>Address Line 4:</b>	BOULDER, COLORADO 80302
<b>ATTORNEY DOCKET NUMBER:</b>	AE2017-019US
<b>NAME OF SUBMITTER:</b>	SEAN R. O'DOWD
<b>SIGNATURE:</b>	/Sean R. O'Dowd/
<b>DATE SIGNED:</b>	01/09/2019
<b>Total Attachments: 2</b>	
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ASSIGNMENT OF PATENT APPLICATION

FOR GOOD AND VALUABLE CONSIDERATION,

We, the undersigned (each) have agreed and hereby agree to assign for good and valuable consideration, receipt of which is hereby expressly acknowledged, and do hereby sell, assign and transfer unto

Advanced Energy Industries, Inc.

a corporation organized under the laws of the state of Delaware as Assignee, and its successors, assigns and legal representatives, the entire right, title and interest, for all countries in and to certain inventions relating to

SYNCHRONIZED PULSING OF PLASMA PROCESSING SOURCE AND SUBSTRATE BIAS

described in an application for Letters Patent of the United States, identified as Attorney Docket No. AE2017-019US, at Neugeboren O'Dowd PC, 1227 Spruce Street, Suite 200, Boulder, CO 80302, and filed on 11/16/2018, as Application Serial No. 16/193,790, and the invention(s) and improvement(s) set forth therein, and any and all provisionals, non-provisionals, continuations, continuations-in-part, divisionals, and renewals of said substitutes for said application for said Letters Patent, and all the rights and privileges under any and all Letters Patent that may be granted (herefor in any country, and any reissues, or reexaminations, or extensions of said Letters Patent. We request that any and all Letters Patent for said inventions be issued to said Assignee, its successors, assigns and legal representatives, or to such nominees as it may designate.

We agree that, when requested, we will, without charge to said Assignee but at its expense, sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable or convenient for securing and maintaining patents for said inventions in any and all countries and for vesting title thereto in said Assignee, its successors, assigns and legal representatives or nominees.

We authorize and empower the said Assignee, its successors, assigns and legal representatives or nominees, to invoke and claim for any application for patent or other form of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document which may be required in any country for any purpose and more particularly in proof of the right of the said Assignee or nominee to claim the aforesaid benefit of the right of priority provided by the International convention which may henceforth be substituted for it.

We covenant with said Assignee, its successors, assigns and legal representatives, that the rights and property herein conveyed are free and clear of any encumbrance, and that we have full right to convey the same as herein expressed.

IN WITNESS WHEREOF, we have hereunto signed our names on the day and year set forth below.

[Handwritten Signature]
Inventor's Signature

12-19-2018
DATE

Kevin Fairbairn
Inventor's Printed Name

STATE OF )
) SS
COUNTY OF )

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above named Kevin Fairbairn who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

NOTARY PUBLIC
My Commission Expires: \_\_\_\_\_

