506747070 07/01/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6793886

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANTOSH SAMBAMOORTHY VEDA	06/28/2021
SURYA CHANDAN DHULIPALA	06/29/2021
MURALI MOHAN BAGGU DATA VENKATA SATYA	07/01/2021
HARSHA VARDHANA PADULLAPARTI	06/28/2021

RECEIVING PARTY DATA

Name:	ALLIANCE FOR SUSTAINABLE ENERGY, LLC		
Street Address:	15013 DENVER WEST PARKWAY		
City:	GOLDEN		
State/Country:	COLORADO		
Postal Code:	80401		

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16905490

CORRESPONDENCE DATA

Fax Number: (303)384-7499

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.

Phone: 3033847571

Email: ipdocketing@nrel.gov

Correspondent Name: ALLIANCE FOR SUSTAINABLE ENERGY, LLC

Address Line 1: 15013 DENVER WEST PARKWAY Address Line 4: GOLDEN, COLORADO 80401

ATTORNEY DOCKET NUMBER:	NREL 19-20
NAME OF SUBMITTER:	NANCY RONZONE
SIGNATURE:	/Nancy Ronzone/
DATE SIGNED: 07/01/2021	
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 4

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source=19-20_Combined_Assignment_and_Declaration_DHULIPALA#page1.tif source=19-20_Combined_Assignment_and_Declaration_BAGGU_DATA_VENKATA_SATYA#page1.tif source=19-20_Combined_Assignment_and_Declaration_PADULLAPARTI#page1.tif

NREL 19-20 Worldwide Rights

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

PHASE IDENTIFICATION USING STA	TISTICAL ANALYSIS
This assignment and declaration are directed	to (check one): e attorney docket no. and title of invention
PCT International Application Number	
☑ United States Application No. 16/905	,490, filed June 18, 2020

<u>ASSIGNMENT</u>

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below-named inventor I have sold and assigned, and by these presents hereby sell and assign, unto:

Name of Assignee: Alliance for Sustainable Energy, LLC

Address of Assignee: 15013 Denver West Parkway, Golden, CO 80401

(hereinafter ASSIGNEE) all my right, title and interest in and to the above-identified invention in any form or embodiment thereof, in the United States and all foreign countries, including applications for patents in the United States and all countries of the world and through the Patent Cooperation Treaty and/or the European Patent Convention, including any and all applications claiming priority thereto such as divisions or continuations thereof, and in and to any and all patents granted in the United States and all countries of the world that may issue on any such applications or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such patents may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made.

I hereby authorize and request the Director of the U.S. Patent and Trademark Office to issue any and all Letters Patent of the United States to said ASSIGNEE, its successors, or assigns in accordance herewith.

I warrant and covenant that I have the full and unencumbered right to sell and assign the interests herein sold and assigned and that I have not executed and will not execute any document or instrument in conflict herewith.

I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives, or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings, and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives, or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all patents that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns, or to assist said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, or enforcing patents for said invention.

DECLARATION

Title of Invention:

As a below named inventor, I hereby declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature: Santosh Veda	6/28/2021
Inventor: Santosh Sambamoorthy VEDA	DATE

NREL 19-20 Worldwide Rights

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

PHASE IDENTIFICATION USING STATISTICA	AL ANALYSIS
This assignment and declaration are directed to (check the application identified above by the attorney PCT International Application Number United States Application No. 16/905,490, filed	docket no. and title of invention, filed

<u>ASSIGNMENT</u>

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, as a below-named inventor I have sold and assigned, and by these presents hereby sell and assign, unto:

Name of Assignee: Alliance for Sustainable Energy, LLC

Address of Assignee: 15013 Denver West Parkway, Golden, CO 80401

(hereinafter ASSIGNEE) all my right, title and interest in and to the above-identified invention in any form or embodiment thereof, in the United States and all foreign countries, including applications for patents in the United States and all countries of the world and through the Patent Cooperation Treaty and/or the European Patent Convention, including any and all applications claiming priority thereto such as divisions or continuations thereof, and in and to any and all patents granted in the United States and all countries of the world that may issue on any such applications or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, or assigns to the full end of the term or terms for which any and all such patents may be granted as fully and entirely as would have been held and enjoyed by me had this Assignment not been made.

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I further covenant and agree that I will communicate to said ASSIGNEE, its successors, legal representatives, or assigns all information known to me relating to said invention or patent application and that I will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings, and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives, or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all patents that may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns, or to assist said ASSIGNEE, its successors, legal representatives, or assigns in obtaining, reissuing, or enforcing patents for said invention.

DECLARATION

Title of Invention:

As a below named inventor, I hereby declare that:

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

Signature: D - Surva Chandan DHULIPALA

06-29-2021

DATE

Worldwide Rights NREL 19-20

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63 (For Use with Signed Application Data Sheet)

Title of Invention: PHASE IDENTIFIC/	VTION USING ST	ATISTICAL ANAL	.YSIS			
This assignment and do the application i PCT internation United States A	identified above by	ed to (check one): the sitomey docket n nber 05,490, filed June 18	o, and title of invention filed , 2020			
		ASSIGNA	<u>IENT</u>			
For good and valuable inventor I have sold an				knowledged, as a	ı below-na	med
Name of Assignee:	Alliance for Sust	ainable Energy, LLA	c:			
Address of Assignee:	15013 Denver W	est Parkway, Golder	s, CO 80401			
(hereination ASSIGNE) combostiment thereof, in and all countries of the including any and all agand all patents granted said invention, includin successors, or assigns tentirely as would have	i the United States a world and through pplications claiming in the United States ig any and all reissu o the full and of the	and all foreign country the Patent Cooperation priority thereto such and all countries of the test or extensions there term or terms for wh	ies, including application Treaty and/or the Ear is Streaty and/or the Ear is divisions or continuthe world that may issue to be held and enjoy fich any and all such pat	ns for patents in t ropean Patent Cor ations thereof, an any such app yed by said ASSII wats may be gran	he United evention, d in and to dications of GNEE, its	any r for
I hereby authorize and the United States to said					Letters Pat	lent of
			ght to sell and assign the or instrument in conflic		sold and a	ssigned
I further covenant and a all information known to make all rightful oaths, by said ASSIGNEE, its including divisions and reissues or extensions, it representatives, or assign	to me relating to sai testify in any legal successore, legal n continuations there in said ASSIGNEE.	id invention or patent proceedings, and per epresentatives, or assi- tof and to any and all , its successors, or ass	opplication and that I w form all other lawful ac- gus to perfect title to sa patents that may be gra- igns, or to assist said A:	all execute and de is deemed necession invention, to so need therefor or the SSIGNEE, its suc	eliver any p ary or desi aid applica hereon, inc	papers, rable dion duding
DECLARATION						
As a below named inve	ntor, Thereby decla	we that:				
The above-identified ap	iplication was made	or authorized to be r	nase by me.			
I believe that I am the o	riginal inventor or	an original joint inver	ntor of a claimed inventi	ion in the applica	tion.	
i hereby acknowledge to or imprisonment of not			nis declaration is punish	able under 18 U.S	i.C. 1001 I	by fine
Signature: inventor: Murali Molu	ALJAL an BAGGU DATA	VENKATA SATYA		DATE	1 20	<u> 2-1</u>

RECORDED: 07/01/2021

ASSIGNMENT AND DECLARATION UNDER 37 C.F.R. § 1.63

(For Use with Signed Application Data Sheet)

Title of Invention: PHASE IDENTIFICA	TION USING STATISTICAL A	MALYSIS	
the application in PCT Internations	claration are directed to (check on dentified above by the attorney do al Application Numberpplication No. 16/905,490, filed June 1	cket no. and title of invention , filed	
	ASSI	GNMENT	
	consideration, the receipt and suffi- l assigned, and by these presents h		knowledged, as a below-named
Name of Assignee:	Alliance for Sustainable Energy	, LLC	
Address of Assignee:	15013 Denver West Parkway, C	Golden, CO 80401	
embodiment thereof, in and all countries of the including any and all ap and all patents granted i said invention, including successors, or assigns to	t) all my right, title and interest in the United States and all foreign of world and through the Patent Coop plications claiming priority thereto in the United States and all countri- g any and all reissues or extension to the full end of the term or terms to been held and enjoyed by me had to	ountries, including application peration Treaty and/or the Euron such as divisions or continuates es of the world that may issue thereof, to be held and enjoy for which any and all such pate	is for patents in the United States opean Patent Convention, ations thereof, and in and to any on any such applications or for ed by said ASSIGNEE, its ents may be granted as fully and
	equest the Director of the U.S. Pat I ASSIGNEE, its successors, or as:		ssue any and all Letters Patent of
	that I have the full and unencumbe uted and will not execute any docu		interests herein sold and assigned therewith.
all information known to make all rightful oaths, t by said ASSIGNEE, its including divisions and reissues or extensions, in	gree that I will communicate to sa o me relating to said invention or p testify in any legal proceedings, ar successors, legal representatives, o continuations thereof and to any a n said ASSIGNEE, its successors, ns in obtaining, reissuing, or enfor	patent application and that I wind perform all other lawful act or assigns to perfect title to sain all patents that may be gran or assigns, or to assist said AS	ill execute and deliver any papers, is deemed necessary or desirable d invention, to said application ated therefor or thereon, including SSIGNEE, its successors, legal
<u>DECLARATION</u>			
As a below named inver	ntor, I hereby declare that:		
The above-identified app	plication was made or authorized t	to be made by me.	•
believe that I am the or	riginal inventor or an original joins	inventor of a claimed inventi-	on in the application.
	nat any willful false statement mad more than five (5) years, or both.	le in this declaration is punish	able under 18 U.S.C. 1001 by fine
Signature: (PADULLAPARTI		6/28/2021 DATE