

MOU Number: MOU-19-524

## **Memorandum of Understanding**

Between

The National Renewable Energy Laboratory,

Allotrope Partners,

World Resources Institute, and

the Global Green Growth Institute

For coordination on accelerating advanced energy investments

### **INTRODUCTION**

**The National Renewable Energy Laboratory (NREL)**, is a national laboratory managed and operated by the Alliance for Sustainable Energy, LLC for the United States Department of Energy (DOE) under Contract No. DE-AC36-08GO28308.

**Allotrope Partners (Allotrope)** is a privately-owned company headquartered in Oakland, California that provides clean energy advisory services focusing on emerging markets and technologies.

**World Resources Institute (WRI)** is a non-governmental institution headquartered in Washington, D.C., that conducts global research on the nexus of environment, economic opportunity, and human well-being.

NREL, Allotrope Partners, and WRI are jointly implementing the Clean Energy Investment Accelerator (CEIA) initiative, which is funded in part by the U.S. government and which seeks to support advanced energy investment, especially in commercial and industrial sectors by addressing deployment barriers through project pipeline development, aggregation of buyers to create strong market signals, public-private convening on opportunities to enhance competitive market design, and the sharing of lessons and tools to support replication.

**The Global Green Growth Institute (GGGI)** is an international organization established in 2012 by the Agreement on the Establishment of the Global Green Growth Institute among its members, with its headquarters in Seoul, Republic of Korea.

As part of its mission, GGGI conducts research and development on promoting sustainable development in developing and emerging countries, including the least developed countries,

through a development approach that seeks to deliver economic growth that is both environmentally sustainable and socially inclusive.

GGGI's staff includes economists and investment specialists with experience working in developing countries and who specialize in public sector economic planning and investment strategies. GGGI provides financial modeling, structures, and due diligence as well as an understanding of capital markets and investor networks.

NREL, Allotrope, WRI and GGGI is each individually referred to as "Participant" and collectively as "Participants." NREL, Allotrope, and WRI are collectively referred to as the "CEIA."

The purpose of this MOU is to encourage coordination in areas of mutual interest and benefit the Participants. This MOU is intended to serve as a general framework for planned coordination between the Participants and is intended to facilitate discussions for the development of a more specific planned program of research and development (R&D) collaboration. Any specific program of R&D collaboration or sharing of confidential information is to be implemented through an appropriate written contract between the Participants.

### **Section 1: Areas of Coordination and Collaboration**

1. The coordination activities planned under this MOU, and the programs of collaboration contemplated in furtherance of, are focused on cooperation to maximize the benefit of each Participant's respective institutional interests, which may include the following selected topics:

- Identifying, testing, and scaling innovative advanced energy investment approaches, including work with commercial and industrial off-takers via project identification, analysis, and support to potential buyers on the procurement process
- Sharing information with public and private sector partners to inform their understanding of investment opportunities in advanced energy
- Collaborating to inform the design of new approaches to clean energy financing and risk mitigation

CEIA and GGGI intend to focus initial joint efforts on Vietnam. The Participants intend to explore collaboration in other countries of mutual interest such as Colombia, Indonesia, Philippines, and Mexico.

In Vietnam, GGGI and CEIA intend to work together on financing solutions and advanced energy project pipelines in key countries. The CEIA, building off of its work to identify project pipelines in under-developed commercial and industrial market segments, intends to help feed in bankable projects into financing facilities for which GGGI intends to lead design. Shared activities may include jointly convening key stakeholders to seek input on the design of such financing products, collaborating to synthesize data and technical analysis of advanced energy investment opportunities and financing requirements, and sharing models and lessons learned through national working groups and regional knowledge exchange networks to support utilization and replication. GGGI and CEIA may explore similar approaches in other markets.

## **Section 2: Forms of Coordination**

Planned coordination under this MOU may include:

1. Exchange of published scientific and technical information, publications, and reports;
2. Meetings organized to discuss specific topics identified in Section 1, including joint conferences, seminars, and workshops; and
3. Exchange of scientists, engineers, and other specialists for participation in workshops, conferences, seminars, working sessions, and model-development activities. Each Participant should abide by the health, safety, and environmental requirements of the host Participant when on an exchange assignment at the host Participant's facility.

## **Section 3: Funding**

1. The scope of coordination activities under this MOU should be mutually determined in light of time, resources and/or funds available at the Participants for the types of coordination undertaken and by such other financial assistance as may be obtained by either Participant from external sources.
2. Unless the Participants otherwise determine in a separate written agreement, each Participant is to be responsible for the costs it incurs in participating in the coordination contemplated by this MOU, including all administrative costs, overhead expenses, labor costs, insurance costs, travel expenses and similar costs.

## **Section 4: Researcher Exchanges**

1. Each Participant retains responsibility for its own personnel in relation to researcher exchanges to carry out coordination under this MOU.
2. Each Participant's personnel is to abide by the regulations, policies, and procedures of the host Participant in carrying out activities under this MOU, including protection of business proprietary information, protection of intellectual property, compliance with export control laws and regulations, conditions of coordination and decorum, health, safety, and security requirements, and all other terms under which personnel are authorized to participate in researcher exchanges at the host Participant's facility. Such activities may require entry into separate written agreements.
3. Each Participant is to be solely responsible for its own personnel in relation to matters such as visa and travel formalities, appropriate insurance (medical insurance and medical evacuation and repatriation insurance), travel expenses, and suitable living accommodation and expenses.

4. To the extent possible, the host Participant should assist in facilitating travel arrangements of the other Participant's personnel in relation to researcher exchanges in accordance with its applicable procedures governing foreign national access to the host Participant's facility.

#### **Section 5: Dissemination of Information**

Each Participant intends to participate in the coordination in a manner that facilitates exchanges of publicly available, non-proprietary business information. Subject to applicable laws and regulations of its country and disclosure policy of the Participant, each Participant may disseminate information, data, and reports of the coordination carried out under this MOU.

#### **Section 6: Use of Information**

Any information transmitted by one Participant to the other Participant under this MOU should be accurate to the best knowledge and belief of the transmitting Participant.

#### **Section 7: Intellectual Property**

The Participants do not anticipate the transfer of rights in intellectual property or the sharing of confidential information to occur under any planned coordination activity under this MOU. If it appears that a particular activity may lead to the creation of intellectual property or the disclosure or exchange of confidential information, the Participants should enter into an appropriate written agreement therefore.

#### **Section 8: Future Collaborations**

An appropriate written contract is required prior to any specific future research and development collaboration, including the exchange of intellectual property or confidential information, or the transfer or commitment of funds between the Participants. Any such contract should include a work plan, staffing requirements, cost estimates, funding sources, the adequate and effective protection and allocation of intellectual property rights, and other arrangements or conditions; and authorized under NREL's Management and Operating Contract.

#### **Section 9: Review of Coordination**

The Participants intend to review the coordination undertaken under this MOU as a means to ascertain its effectiveness, document achievements and lessons learned, recognize technical personnel, and identify and plan areas for potential future collaboration that involves the conduct of research and development. This review should take the form of periodic meetings of representatives of each Participant to discuss ongoing coordination and to identify and plan future collaboration that involves the conduct of research and development activities.

## Section 10: Contacts

One or more designated representatives from each Participant should oversee, manage and facilitate implementation of this MOU in cooperation with each other on behalf of their respective institutions. All notices, communications and coordination should involve, at a minimum, the following individuals, their successors and/or designees as follows:

(a) For the National Renewable Energy Laboratory:

Bethany Speer  
15013 Denver West Parkway  
Golden, CO 80401  
Tel: 1 303 384 7421  
[bethany.speer@nrel.gov](mailto:bethany.speer@nrel.gov)

(b) For Allotrope Partners

Rachel Posner Ross  
1330 Broadway, Third Floor  
Oakland, CA 94612  
[rpr@allotropepartners.com](mailto:rpr@allotropepartners.com)

(c) For World Resources Institute

Andrew Steer  
10 G Street NE Suite 800  
Washington, DC 20002  
1 202 729-7600  
[www.wri.org](http://www.wri.org)

(d) For the Global Green Growth Institute

Tero Raassina  
Principal Investment Specialist  
Room 311, MPI Building, 65 Van Mieu street, Dong Da district, Hanoi, Vietnam  
+84 24 3237 3480  
[tero.raassina@gggi.org](mailto:tero.raassina@gggi.org)

## **Section 11: General Considerations**

1. This MOU is not intended to create any legally binding obligations between the Participants.
2. Each Participant should conduct the coordination contemplated by this MOU in accordance with applicable laws and regulations to which it is subject and international agreements to which the Participant or its government is party.
3. Any dispute arising from the interpretation or application of this MOU shall be settled amicably through consultation or negotiations between the Participants.
4. Nothing in this MOU shall in any way constitute or imply a waiver, renunciation, termination, or modification by each Participant of any of its privileges, immunities or exemptions granted by any applicable convention or under international law or any applicable law.

## **Section 12: Commencement, Modification and Discontinuation**

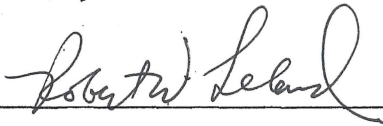
1. Coordination under this MOU may commence upon signature, and may continue for a period of two (2) years, unless discontinued in accordance with paragraph 3 of this section.
2. The Participants may modify this MOU at any time by mutual consent in writing.
3. The Participants may discontinue coordination under this MOU at any time by mutual consent in writing. Alternatively, a Participant that desires to discontinue its participation in this MOU should endeavor to provide the other Participant at least 90 days advance written notice.

Signatures on the following page.



For

**The National Renewable Energy  
Laboratory**



Name of Signatory Rob Leland

Title Associate Laboratory Director

Date

Golden, CO USA

Place

For

**World Resources Institute**

DocuSigned by:



ZF61F747E8ED48C...

Name of Signatory Don Spencer

Title Director of Grants and Contracts

June 5, 2019

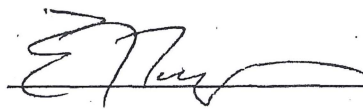
Date

WASHINGTON DC

Place

For

**Allotrope Partners**



Name of Signatory ETHAN J. RAVAS

Title MANAGING PARTNER

Date

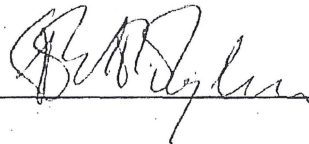
JUNE 10, 2019

OAKLAND CA USA

Place

For

**Global Green Growth Institute**

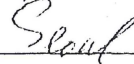


Name of Signatory FRANK R. SBERTAN

Title DIRECTOR GENERAL

Date

May 23 2019



Place