Memorandum of Understanding

This Memorandum of Understanding, MoU is entered on 31. May 2022, between University of Chile, (UCH) Faculty of Physical and Mathematical Sciences, Energy Center and Solar Energy Research Centre (SERC) and Central University of Jharkhand, Centre of Excellence in Green and Efficient Energy Technology, CoE-GEET and as agreed by both the parties this Memorandum of Understanding is effective from the date of singing and the same will be referred as effective date.

WHEREAS as agreed by both the parties, The Faculty of Physical and Mathematical Sciences (UCH-FCFM) on behalf of the Energy Center and the Solar Energy Research Centre ("SERC"), having an address at Av. Tupper 2007, Piso 4. Centro de Energía, Santiago de Chile, Chile, is entered into this MoU and it will represent the University of Chile and The Registrar of the Central University of Jharkhand will represent the Central University of Jharkhand having its Office at Cheri-Manatu, Ranchi 835222, Jharkhand, India.

WHEREAS, UCH-FCFM wishes to explore possible opportunities to work with Central University of Jharkhand to conduct research, education and/or training which are of mutual interest and benefit to University of Chile and Central University of Jharkhand.

WHEREAS, The Energy Center created by the University of Chile in year 2009 and SERC, scientific research centers of excellence established under FONDAP program of the National Commission for Science and Technology Research in year 2012, Chile promotes the development of a solid foundation of knowledge regarding solar energy through researching scientific, technical, and economic challenges in the field and offers variety of research/training programs in the area of Solar/renewable energy.

WHEREAS, CUJ is a non-profit, international organization established to develop enlightened citizenship for peace and prosperity of individuals, nations, and world. Consistent with its mission CUJ maintains a wide ranging research program offered by different Departments and Centres intended to promote creative and critical thinking for holistic development and self-sustenance in multidisciplinary environment. Research sponsors include research agencies, research institutes, and nonprofit policy research organizations.

WHEREAS, this broad collaboration may include possible research, training and education activities that will further UCH's instructional, scholarship and research objectives in a manner consistent with its status as a non-profit, tax-exempted educational institution. NOW, THEREFORE, the parties hereto agree as follows:

1. Article- Purpose

This Agreement is intended to foster research collaboration between University of Chile (Energy Center and SERC and Centre of Excellence) in Green and Efficient Energy Technology (CoE-GEET),

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and the Central University of Jharkhand in areas of mutual interest.

2. Article- Duration

This MOU describes the general scope of project activities where the parties, contingent upon availability of funds and mutual desire of the Parties, will collaborate for a period of 3-year w.e.f. the date of signing of this MoU.

3. Article - Possible Activities of Collaboration

Recognizing the overlapping interests and respective strengths of the two organizations, both have agreed to initiate collaboration, (Details given in Appendix-A) through a combination of research projects, convening of experts and strategic communication and outreach, the collaboration will identify key, specific policy issues currently under discussion, conduct relevant research, and develop deliverables and projects, subject to separate agreements as may be necessary. The focus of the collaboration will be on India, and specifically the State of Jharkhand.

4. Article-Funding

- 4.1 The parties agree that this MOU does not commit them to any project activities, to make any financial or personnel support, or to provide specific laboratory or office space for programs. The parties will conduct the work and provide support based on the availability of resources and in accordance with its rules regulations and policies. Notwithstanding the foregoing, the parties agree to use reasonable efforts to consider opportunities to obtain funds and other resources to support the Project.
- 4.2 Contingent on the prior approval of each party and subject to separate written agreement, the parties may submit joint proposals for research funding to appropriate sources both within and outside the United States. Only authorized officials for each party may execute awards to conduct joint research projects.
- 4.3 Any research funding obtained shall be subject to separate written agreement describing the specific collaborative project to be conducted to fulfill the goal of this MOU. Any separate agreement will address, at a minimum, the scope of work; the respective roles, contributions and obligations of each party to the project; the administration, coordination and implementation of the project; ownership and rights of each party to use intellectual property that is developed in the course of the collaboration; licensing and patent rights; disposition of research results; duties of confidentiality; publication rights, and other matters agreed to by the Parties.

5. Article- Possible Future Work

- 5.1 Other activities between the Parties may include exchanging researchers, preferably post graduates and post doctorates, sharing scientific publications, technical information brochures and magazines, and conducting joint research in areas of mutual interest. Any such activity shall be subject to a separate written agreement. See Appendix A, "Possible Areas of Collaboration."
- 5.2 Any separate agreements to exchange or share personnel shall be subject to a separate written agreement and approved and conducted in accordance with the policies of each party and will address qualifications and selection of the participating scientists and will require the visiting patty to comply with the regulations and policies of the host patty, among other relevant topics.

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5.3 Neither party shall incur any expenses or make any commitments until funding is confirmed in writing by an authorized representative of each party.

6. Article- Communications

The parties will communicate and consult with one another on the progress of the Project, and prepare a report summarizing their activities for distribution. University of Chile and CUJ-CoE-GEET will make reasonable efforts to provide an annual update report on the on-going collaborations as part of this MOU.

7. Article- Confidentiality, Confidential Information.

Prior to exchanging any information that a Party deems confidential with the other Party, the Parties shall enter into a separate written non-disclosure agreement, to be signed by an authorized official of each Party.

8. Article- Publication, Publicity and Use of Name

- 8.1 Each Party shall have the right to publish and disseminate information derived from the performance of work under this MOU. Qualification for authorship shall be in keeping with generally accepted criteria. The order of authorship shall be a joint decision of the coauthors in any coauthored publication. Each author shall have participated sufficiently in the work to take public responsibility for the content. Furthermore, project participants may use the contents of the works produced during the project for non-commercial teaching purposes without special permission. All other uses of project reports, in whole or in part, shall require mutual assent of UCH, UCH and CUJ-CoE-GEET, Central University of Jharkhand.
- 8.2 Neither Party shall use directly or by implication the names, trademarks, logos, or trade dress of the other Party, nor any of the other Party's affiliates or contractors, nor any abbreviations thereof, or of any staff member, faculty member, student, or employee of the other Party in connection with any products, publicity, promotion, financing, advertising, or other public disclosure without the express prior written permission of an authorized official of the other Party.

9. Article- Intellectual Property

With respect to any invention, discovery, copyrightable work, software or other intellectual property ("Intellectual Property") that is created or conceived of under this MOU, all rights, title to and interests in any Intellectual Property that is created exclusively by the employees of one party shall be owned by that party, and all rights, title to and interests in any Intellectual Property that is created jointly by employees of both parties shall be jointly owned by the parties. Nothing in this MOU shall be deemed to assign, license, or grant any interest in or to a Party's Intellectual Property that is created prior to or apart from this MOU.

10. Article-Termination

10.1 Either party may terminate this MOU at any time with a minimum of thirty (30) days prior written notice. Unless otherwise agreed to by the parties, any separate agreement that is in progress and not scheduled to end until after the effective date of termination will be completed according to the terms of the separate agreement.

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10.2 In the event that UCH, in its sole and absolute discretion, does not obtain funding or resources to participate in any project contemplated by this MOU, UCH has the right to immediately terminate this MOU.

11. Article- Notices

Notices that are required to be given under this MOU shall be addressed to the following individuals and sent by first-class mail, postage prepaid; in person, or by facsimile followed by a mailing by first-class mail, postage prepaid. Notices will become effective on receipt.

For University of Chile:

Director Centro de Energía Attn: Prof. Rodrigo Palma Behnke Attn: Av. Tupper 2007, Piso 4. Centro de Energía, Santiago de Chile, Chile

For Central University of Jharkhand:

The Registrar, Central University of Jharkhand Attn: Prof S K Samdarshi Coordinator and PI, Centre for Excellence in Green and Efficient Energy Technology Central University of Jharkhand Cheri- Manatu, Ranchi 835222 Jharkhand, India

12. Article- Liability

It is understood and agreed by both the parties that neither Party to this MOU shall be liable for any negligent or wrongful acts, either of commission or omission, chargeable to the other unless such liability is imposed by law, and that this MOU shall not be construed as seeking to either enlarge or diminish any obligation or duty owed by one Party against the other or against third parties.

13. Article- General

- 13.1 Until such time that the Parties agree to permanent public relations protocols, they agree to issue joint announcements regarding this MOU and specific projects.
- 13.2 Each Party agrees to subscribe to the principle of equal opportunity and shall not discriminate on the basis of race, sex, age, ethnicity, religion, or national origin in the administration of this Letter and the selection of persons who participate in exchanges.

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- 13.3 In the event that a dispute arises under this MOU, the Parties agree to make a good faith effort to resolve any differences amicably.
- 13.4 In the event any provision of this MOU is determined to be invalid or unenforceable under any applicable laws or Rules or Regulations the invalidity or unenforceability of that provision shall not in any way affect the validity or enforceability of the remaining provisions of this MOU.
- 13.5 The Parties are and shall remain independent contractors and nothing herein shall be construed to create a partnership, agency, joint venture, or teaming agreement between the two organizations.
- 13.6 This MOU shall not be assignable by either Party, in whole or in part, without the prior written consent of the other Party.
- 13.7 This MOU contains the entire agreement between the Parties and no statements, promises or inducements made by either Party or agent of either Party that arc not contained in this written MOU shall be valid or binding; and this MOU may not be enlarged, modified or altered except in writing, signed by the Parties.
- 13.8 In the event that a dispute arises under this MoU, the Parties agree to make a sufficient effort to resolve any differences amicably and in the case dispute will not be resolved the parties are at liberty to take appropriate steps including the right to terminate this MoU in the terms intended for that purpose at 10.1 article.
- 13.9 Each Party agrees that in connection with this MOU that it will abide by applicable laws and regulations. No Party will offer, promise, or give, directly or indirectly, anything of value to any government official, political party official, political candidate, or employee thereof or to any third party official, political party official, political candidate, or employee thereof for the purpose of obtaining or retaining business. Each Party specifically agrees that in connection with this Agreement, it will take no action, or omit to take any action, which would cause another Party to be in violation of the applicable laws of the Chile and India, including any Corrupt Practices Act and/or any local laws regarding bribery and their equivalent in India. Each Party agrees not to take any action that would cause another Party to be in violation of Chile laws and regulations or sanction programs or participate or cooperate, directly or indirectly, in an international boycott in any manner that could result in penalties under UCH law and their equivalent in India. The Parties represent and certify that neither the Parties nor their officers, board members, nor agents involved in this Agreement have been convicted of crimes involving theft, fraud, bribery, corruption or moral turpitude and that each is not now listed by any government agency as being debarred, suspended, or proposed for debarment or suspension.

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IN WITNESS WHEREOF the respective parties hereto have executed this MOU by their duly authorized officers on the date appearing below their signatures.

| | UNIVERSITY OF CHILE | CENTRAL UNIVERSITY OF JHARKHAND |
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| | BY: | BY: |
| | | Countin |
| 1 | Name: | Dr S L Harikumar |
| | | कुलसचिव REGISTRAR झारखण्ड केन्द्रीय विश्वविद्यालय, राँची Central University of Jharkhand, Ranchi |
| | Title: Unversity of Chile, Santiago, Chile | Central University of Jharkhand, Ranchi Registrar, CUJ, Ranchi, Jharkhand, India |
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| CIENCLE | Dates - | Date |
| DEC | BY: BY: Prof. Francisco Martinez | BY: Prof S K Samdarshi |
| | | |
| | Dean Facultad de Ciencias Físicas y Matemáticas Universidad de Chile, Santiago, Chile Title | Coordinator, CoE-GEET, CUJ, Ranchi, Jharkhand, India Title |
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Appendix A- Possible Areas of Collaboration

Among the areas where CoE, CUJ – UCH may collaborate:

- 1) Provide potential research assistantships for some PhD students participating in DEE/CoE-GEET's research mission to collaborate with UCH academic faculty.
- 2) Provide research opportunities for students for Central University of Jharkhand, for example in the work in the area of Solar Energy and Energy Policy.

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