

Memorandum of Understanding

This memorandum of understanding (hereinafter referred to as the "MoU") is made and entered into on **16.09.2022**.

Between

ANP GeoEnergy Pvt. Ltd. is a company duly incorporated under the laws of India bearing Corporate Identification Number (CIN): U74110DL2020PTC370118, and having its registered office at A-704, 7th Floor, Plot No. 2, Abhiyant Apartment, Vasundhara Enclave, Delhi, East Delhi, Delhi, India, 110096. Herewith referred to as **ANP**.

ANP's core business is developing geothermal energy projects in India. ANP is led by team of professionals having over 25+ years of experience in oil & gas industry internationally. ANP team is highly focused on leveraging oil & gas technologies to reduce production costs of geothermal energy in India. ANP has been granted the status of startup company by DIPP, GoI.

And

Indian Institute of Technology (Indian School of Mines) Dhanbad, an All India Institution financed by the Central government, established as a public engineering and research institute, by the Government of India, having its office at Police Line, Sardar Patel Nagar, Hiraipur, Dhanbad, Jharkhand 826004 hereinafter referred to as "**IIT (ISM)**" which expression shall, unless repugnant to the context and meaning thereof, be deemed to mean and include successors, executors, representatives and permitted assignees.

IIT (ISM) is an institute offering specialized under-graduate and post-graduate programs in the energy and the allied sectors since 1926 and was granted the status of IIT (ISM) by the Act of Parliament in 2016.

ANP and **IIT (ISM)** are individually referred to as the "Party" and collectively referred to as the "Parties".

Whereas

ANP is a startup company focused on developing geothermal projects in India and leveraging upstream oil & gas industry's technology to reduce the geothermal energy production costs.






And

ANP is willing to jointly work with IIT (ISM) in the field of (but not limited to) geothermal energy exploration and production. Both parties have already submitted a joint research proposal to MNRE for grant of funds. The proposal topic is 'Geothermal Resource Assessment of Cambay, KG, and Barmer basins and commercial feasibility assessment of Geothermal Energy Production from existing oil and gas wells using the Well Repurposing Technology', hereinafter referred as the "**Project**".

Whereas

IIT (ISM) is a public engineering and research institute that has a dedicated department for petroleum engineering teaching and research. The department addresses the need for trained and specialized human resource for the oil and gas industry worldwide. It intends to expand the opportunities for students and professionals to develop an intellectual knowledge base with leadership skills to compete in the global arena. This objective is being addressed through a number of specialized and well-planned undergraduate and post-graduate energy education programs and intensive research initiatives. **IIT (ISM)** is interested in conducting industrial research and consultancy pertinent to the Indian industry and in taking lead to establish research and teaching facilities on the campus.

Now Therefore the MoU Witness That Parties Hereto Agrees as Follows:

1. Scope and Areas of Collaboration

This Industry-Academia collaborative research and development initiative is aimed at creating a comprehensive platform for pursuing advanced research works jointly by ANP and IIT (ISM). The objectives of this collaboration under the MoU, but not limited to, are envisaged as follows:

- i. Collaborative execution of research projects in the jointly agreed Geothermal Energy research areas, which include
 - a. Evaluating the geothermal energy in place of sedimentary basins of India.
 - b. Evaluating geothermal energy production potential from existing oil & gas wells which are either suspended or abandoned.
 - c. Developing Well Repurposing technologies to recomplete oil & gas wells for

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production of geothermal energy.

- d. Developing an effective and economic framework for oil & gas industry to invest in Geothermal Energy production for its direct use or electricity generation.
- ii. Promoting internships at ANP
- iii. Promoting visiting and/or adjunct faculty programs and research oriented career programs such as Ph.D. at IIT(ISM).
- iv. Extending ANP industrial platform and IIT(ISM) research platform to each other.
- v. Conducting short- and long-term courses, jointly organized workshops, seminars, and conferences in IIT(ISM) or at ANP on topics of Geothermal Energy and its potential to decarbonize various industrial sectors.
- vi. Promoting entrepreneurship activities in jointly agreed areas.

2. Responsibilities:

2.1 Responsibilities of ANP:

- i. To generate ANP's share of funds in the event of approval of PROJECT by MNRE.
- ii. To collaboratively secure data from DGH and E&P companies for the purpose of carrying out research under the proposed PROJECT.
- iii. To jointly pursue collaborative research and training programmes with the IIT(ISM).

2.2 Responsibilities of IIT (ISM):

- i. Provide space and basic infrastructural facilities for carrying out the research work smoothly, subject to the rules of IIT(ISM).
- ii. Provide research and development support for executing PROJECT by engaging faculty, research scholars and laboratory staff as may be needed.
- iii. To provide access to Lab/libraries of IIT (ISM) to ANP professionals, subject to rules of IIT(ISM).

3. Understanding of Parties

3.1 Nothing in this MoU shall grant to either Party the right to bind the other Party, without the prior written consent of the other Party.

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3.2 The Parties understand and acknowledge that this MoU will provide the foundation for more comprehensive and definitive agreements.

3.3 The collaboration between IIT(ISM) and ANP set out in clause 1 will be developed and will be functional under the framework of Collaborative Program.

3.4 Under the Collaborative program, IIT(ISM) and ANP will have frequent exchange through meeting and other forms of communication to discuss and develop projects under the areas specified under clause 1 and those may be of mutual interest.

3.5 Each Party would bear its own costs, including costs and expenses with regard to implementation of this MoU. Further, actual implementation would be undertaken by respective Party at its own risk and cost.

3.6 Each Party represents that with respect to the matters which are subject to this MoU; it will not make or offer any payment, gift, either directly or through intermediaries, to or for the use of any public official where such payment, gift, promise or advantage would amount to any illegality and /or corrupt practice under the law.

3.7 For and on behalf of the IIT(ISM) **Prof. Keka Ojha** or any other person nominated and approved by the Dean (R&D), IIT (ISM), will be representatives for the purpose of establishing projects under the Collaborative Program.

3.8 For and on behalf of the ANP, **Pulkit Goel** or any other person/s nominated and approved by them will be its representatives for the purposes of establishing projects under the Collaborative Program.

3.9 This MoU is a non-exclusive arrangement among the Parties.

3.10 Publications in Journals, Presentations & Conferences: It is agreed between the Parties hereto that neither Party shall disclose any data or information that may be proprietary or confidential in nature including publication of any article, study, discussion, presentation, information, data, etc. Further, publications and presentations in Journals & Conferences respectively shall be under joint authorship of IIT(ISM) and ANP.

3.11 None of the parties shall incur any obligations or liabilities on behalf of the other Party or the Parties without entering into specific definitive agreements, as the case may be. None of the Parties shall act as an agent, employee, partner or joint venture of the other Party or the Parties.

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Any obligations and liabilities of the Parties hereunder shall be individual and not jointly or collectively.

4. Technology Transfer

i. **IIT (ISM)** and **ANP** may transfer their available know-how, technology, workflows and practices to each other by provision of:

a) Formal training programs including work association,

b) Association of ANP executives during critical phase of any study.

ii. Any and all intellectual property or technology transfer/sharing/licensing shall be on as-is-where-is basis. ANP is advised to test the workability deliverables before the actual implementation. IIT (ISM) does not make any representations, conditions, or warranties, either express or implied, with respect to such reports or deliverables. IIT (ISM), and its personnel including faculty, students and staff will not be liable for any damage or loss, whether direct, consequential, incidental, or special, which ANP or its agents may suffer, arising from the technology/intellectual property or any deliverables under this MoU.

5. Intellectual Property Rights:

Subject to the Intellectual Property (IP) Right Protection Agreement signed between the Parties on:

- i. The intellectual property arising out of this work shall be jointly held in the name of **ANP** and **IIT (ISM)** wherein **ANP** will be the first party, mentioning inventors from both the sides. **ANP** will be responsible to file, maintain and defend against any claims and/or possible encroachment using its own technical support to defend any claim encroachment. **IIT (ISM)** shall retain the rights for teaching and to continue research in the specified area using the IP thus developed.
- ii. The right to use of IP/Patent/Technology developed through this collaboration for its commercial exploitation shall rest with **ANP** and its group companies and **IIT(ISM)**. In case of the generation of profit by its uses from third party will be shared with **ANP** and **IIT (ISM)**. The extent of such sharing will be mutually decided on a case-to-case basis. **IIT (ISM)** may share the amount so generated, with the inventor(s) from **IIT (ISM)** as per the existing norms of **IIT (ISM)**.

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6. Status of MoU

This MoU is intended to record mutual understandings of the Parties hereto as the date hereof.

It is clearly understood by **IIT (ISM)** and **ANP** that there will be no obligation or financial commitment whatsoever on the Parties under this MoU unless otherwise agreed.

For each one of the activities and/or actions identified by the Parties under this MoU, and/or when specific obligations or financial commitments appear necessary to the Parties, the Parties may enter, directly or through the concerned affiliate, into a specific agreement defining in detail the respective obligations and commitments of each Party, and particular the program of work, the financial conditions of its execution and the provisions regarding industrial property and exploitation of the results to be obtained.

This MoU is a non-binding expression of the current intentions of the parties, and neither party will incur nor be bound to any legal obligations or expense hereunder to the other parties until and unless definitive agreements have been negotiated, approved by the necessary management levels of each Party and executed and delivered by authorized representatives of both Parties.

7. Notices and Addresses:

For the purposes of this MoU, the address of the Parties will be as follows and all correspondences and notices in relation to the present MoU sent to the Parties at the address mentioned below shall be deemed to be sufficient service of the notice on the Parties.

Address of IIT (ISM):

Dean (R&D) IIT (ISM)
Department of Petroleum Engineering
Indian Institute of Technology (ISM) Dhanbad
Sardar Patel Nagar, Hirapur, Dhanbad,
Jharkhand 826004

Address of ANP

ANP GeoEnergy Pvt Ltd
T-7/1603, Tata Primanti
Sector-72, Gurgaon
Harayan – 122018
Tel: +91 96437 39735

8. Term of MoU

The MoU shall be effective from the date written hereinabove and shall remain effective for an indefinite period unless otherwise terminated at an early date.

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9. Termination and Withdrawal

This MoU may be terminated:

- (a) By either Party upon providing 30 days' written notice.
- (b) If winding up process has been initiated by or against any of the Party.
- (c) If any Party becomes bankrupt or has a receiving order made against it or enters into a composition with its creditors or in the event of force majeure prohibiting its continuity; or
If any Party breaches any of its obligations under this MoU and fails to take steps to remedy the breach within 7 days after receiving a written notice of the breach from the Party;

On the happening of any one of the events mentioned in (a, b & c) above, either of the Parties may terminate this MoU, by written notice to the other Party, its receiver, manager, trustee liquidator, administrator or any other person in whom the affairs of the relevant party may have become vested:

Further this MoU will come to an end due to any exigency on part of IIT (ISM) or ANP that may require termination of this MoU.

10. Amendment

This MoU may be amended upon the mutual consent of both Parties and such amendments will have no impact on any specific agreement then in force.

11. Force Majeure

In the event of either Party being rendered unable by Force Majeure to perform any obligation required to be performed by them under this MoU, the relative obligation of the Party affected by such Force Majeure shall, upon notification to the other Party be suspended for the period during which such cause lasts.

The term "Force Majeure" as employed herein shall mean Act of God, floods, tempest, war, act of terrorism, civil riot, fire, viral breakouts, epidemics, pandemics, and Acts, Rules and Regulations of Government authority (whether Central, State or Local authority) directly affecting the performance of the MoU.

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12. Confidentiality

Both Parties acknowledge the confidentiality of the information which may be exchanged between the Parties from time to time as being essential to this MoU and agree not to disclose the same to any third party.

13. Dispute Resolution

1. The parties shall make effort to resolve amicably any disagreement arising between them under or in connection with the MoU.
2. Should the dispute, controversy or claim still persists, it shall be finally and exclusively, settled jointly by Director, **ANP** and Dean (R&D), **IIT (ISM)**, which shall be binding on both the Parties.

14. Applicable Law and Jurisdiction


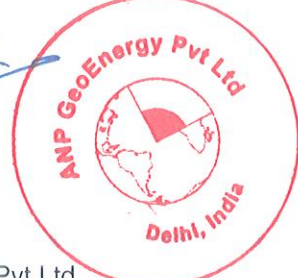
This MoU including all matters connected with this MoU, shall be governed by the laws of India (both substantive and procedural) for the time being in force and shall be subject to exclusive jurisdiction of Courts Kolkata.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date

For & on behalf of IIT (ISM)

For & on behalf of ANP


Prof. Sagar Pal
Dean (R&D)
IIT(ISM) Dhanbad
Email id: drnd@iitism.ac.in
**Dean (Research & Development)
Indian Institute of Technology
(Indian School of Mines)
Dhanbad - 826004 (INDIA)**


Mr. Pulkit Goel
Director
ANP GeoEnergy Pvt Ltd
Email: pulkit@anpgeoenergy.com


Witnesses:

1. By KEKA, OJHA (Name & Signature)

2. By  (Name & Signature)

