

Last date for submission of application: January 07, 2019

**Indian Oil Corporation Limited
Research & Development Centre
Faridabad**

Hiring of Consultant in Solar Energy R&D

Background

IOC-R&D work on solar energy was initiated with special focus on solar thermal technologies, owing to its close synergy with IndianOil's existing and future path of progression. The main objective of IOC-R&D's efforts in solar thermal is to make it a profitable business option for IndianOil by development and deployment of efficient & low cost solar thermal based systems. Under solar business plan, IOC-R&D is exploring synergistic business propositions in the solar thermal supply chain. One such potential project that has been identified is production of Solar-Fuels in collaboration with overseas reputed institute.

Requirement of Consultancy Services

Following urgent information & primary data is required to be collected so as to arrive at a meaningful decision:

• **Business Potential**

- The technology being discussed is highly dependent on good quality of solar radiation for which following information is to be collected:
 - Locations in India where high solar radiations conducive to this project is available

- Availability and estimated cost of land in such high solar radiation areas
 - Further, since IOC shall be targeting some of the mutually agreed neighboring countries for commercialization of this technology, an idea of the solar resources and such related inputs shall also be required.
- **Indigenization Potential**
 - The technology needs to be indigenized as much as possible and based on technical inputs from Israel, local component manufacturers and suppliers need to be identified
 - Also cost estimates for local components needs to be arranged
- **Regulatory Requirement Assessment**
 - The solar tower is expected to be about 40 meters high wherein a temperature of over 750-800 C is generated and the same is to be setup in the existing available land of IOC in Jaipur
 - Since this is the first of its kind project on solar thermal energy in the country, a lot of running around will be required to explain to the local civic authorities for seeking various type of clearances

All the above listed jobs require high level of domain expertise and sound knowledge & acclimatization of various geographical areas where this technology can be implemented.

Further, there are several other projects such as solar thermal based water treatment system, solar thermal energy system for process heat applications and cooling / air conditioning, solar thermal & thermal energy storage based versatile cooking system, etc where consultation shall be utilized productively.

Proposed Candidate's Profile

Qualification of the candidate– Graduate in Civil/Mechanical/Electrical Engineering or Master’s in Science (Physics, Energy Studies, Environmental Sciences)
Upper age limit of the candidate - Below 65 years

Desired candidate for fulfilling the consultancy requirements should be competent and experienced in the field of Renewable/ Alternative Energy and specialized in the area of solar thermal. Following are the key attributes of the required consultant profile.

- Minimum 30 years of work experience in renewable energy – R&D, Technology development, Indigenization of the technology, demonstration, policy making etc.
- Sound knowledge, awareness and experience of implementation of policy and planning of different renewable energy based programs.
- Over 10 years of experience in the area of solar thermal related to the following :
 - Research, development and demonstration of indigenously developed solar thermal systems.
 - R&D on solar thermal systems - lab scale, prototype, pilot etc
 - Development, demonstration and operation of solar thermal plants (based on parabolic trough, solar dish, solar tower and Fresnel technologies)
 - Modular Central Receiver Concentrated Solar Power Plant for Decentralized Power Generation
 - Design and development of Solar thermal based cooling system.
 - Design and Development of solar thermal based water treatment systems.
 - Solar resource mapping
 - Solar thermal storage material R&D
- Testing of solar processes/systems/components
- Preference for candidates having following IP credentials

- Author/ Co-author for Books
- Patents related to solar thermal research
- Technical papers in peer reviewed journals

Financial Implication

Remuneration commensurate with the industry practice and shall be negotiated during selection process.

Working conditions - 36 hours per week working from Monday to Friday with Casual leaves and restricted holidays apart from other holidays as per IOC list of holidays

How to Apply

Candidates may send applications along with all documents/testimonials pertaining to qualification, experience etc. on or before **Monday, January 07, 2019** to **General Manager (Alternative Energy), IOC R&D Centre, Sector 13, Faridabad – 121007, Haryana**, through ordinary post.