I/7703/2023

Expression of Interest (EOI)

For Implementation of Demonstration Projects on Hydrogen Fuel Technologies

EoI No. EMC/34/2023-ETB-3(EED) dated. 15/02/2023

Addendum Document

No. EMC/34/2023-ETB-3(EED)/EOI-1/A1 25-02-2023

1. In order to include some other technologies such as Hydrogen generation from Biomass since Kerala agricultural waste and biomass are available in Kerala, the objective of this EoI is extended with the following scope. This item may be read as item 5 & objective 5 of this EOI

   5. Supply Installation and Commissioning of Hydrogen Generation system by means of thermal cracking of biomass, solid waste, agricultural waste etc. or any other suitable technology.

   The technical submittal to be uploaded by the respondent is attached as annexure of this Addendum document. Respondents can write down the above mentioned item against 'parameter v' of summary sheet if necessary.

2. In order to include start up companies the Qualification criteria A & B (Item No 5 of Information to Respondents) are revised as follows.

Sl	Existing Criteria	Revised Criteria
A	The agency should have been in the business of providing technological Services in India or abroad for a period of at least two or more years as on 31/12/2022. The agency should be a private/ public limited company with proven track record in consultancy /implementation/ research for Green Hydrogen projects including production or storage or transportation or other renewable energy projects. Preference shall be given to the companies registered in India or companies having tie ups with Indian	The agency should have been in the business of providing technological Services in India or abroad for a period of at least two or more years as on 31/12/2022 or Startup companies having valid startup registration certificate and having at least 6 months of experience. The agency should be a private/ public limited/Limited liability Partnership company with proven track record in consultancy /implementation/ research for Green Hydrogen projects including production or storage or transportation or other renewable energy projects.

	Manufacturers (Electrical or Electronics equipment only).	Preference shall be given to the companies registered in India or companies having tie ups with Indian Manufacturers (Electrical or electronics equipment only).
B	Total turn over the agency shall be more than Rs. 100 lakhs over the last three years from Hydrogen based technologies business. The agency should be a dedicated technology company with dependable credentials and service history. For agencies with multiple service verticals, 10% or minimum INR 100 Lakhs, of their total turnover should be from hydrogen based technologies business.	Total turn over the agency shall be more than Rs. 100 lakhs over the last three years from Hydrogen based technologies business. The agency should be a dedicated technology company with dependable credentials and service history. For agencies with multiple service verticals, 10% or minimum INR 100 Lakhs, of their total turnover should be from hydrogen based technologies business. For, Startup company, they should have working order for Renewable Energy (Electricity / Biomass) based Project

Annexure

Technical submittals for Supply, Installation and Commissioning of Hydrogen Generation system by means of thermal cracking of biomass, solid waste, agricultural waste etc. or any other suitable technology.

i	Name of the technology	
ii	Attach a presentation regarding technology	
iii	**Minimum Standard** Output capacity of the plant that can be installed	---- kg/hr of Hydrogen ---- kg/Day of Hydrogen or specify range from --kg/hr to – kg/hr
	Input electricity, biomass and water required	---V -- Hz

		-- kW 1P or 3P -- LPH of water --- kg/Hr of Biomass
	Biomass Quality	Type: ---- Size: ---- GCV: --- Ash content: --- Moisture Content: --- --- kg of H_2/kg of Biomass
iv	**Medium Standard** Output capacity of the plant that can be installed	---- kg/hr of Hydrogen ---- kg/Day of Hydrogen or specify range from --kg/hr to – kg/hr
	Input electricity, biomass and water required	---V -- Hz -- kW 1P or 3P -- LPH of water --- kg/Hr of Biomass
	Biomass Quality	Type: ---- Size: ---- GCV: --- Ash content: --- Moisture Content: --- --- kg of H2/kg of Biomass
v	**Maximum Standard** Output capacity of the plant that can be installed	---- kg/hr of Hydrogen ---- kg/Day of Hydrogen or specify range from --kg/hr to – kg/hr
	Input electricity, biomass and water required	---V -- Hz -- kW

	Biomass Quality	1P or 3P -- LPH of water --- kg/Hr of Biomass Type: ---- Size: ---- GCV: --- Ash content: --- Moisture Content: --- --- kg of H2/kg of Biomass
vi	Indicative unit cost for supply and installation of Minimum capacity range plant	Provide the rate in Rupees per 1 kg/hr capacity plant
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ix	Land area required per kg/hr of Hydrogen electrolyser	In square meter
x	Details of clearances and approvals required prior to implementation	
xi	Any other relevant information	