

NTPC Vidyut Vyapar Nigam Limited

(A wholly owned subsidiary of NTPC)



Invites

Global

Expression of Interest

(EOI)

From

Fuel Cell Electric Vehicle

(FCEV)

Bus & Car Manufacturers

For

Supply of FCEV Buses& Cars in India

DOCUMENTS OF EOI

This EOI document comprises of the following sections:

- | | | |
|-------|-------------|----------------------------------|
| (i) | Section I | : Eoi Information |
| (ii) | Section II | : Introduction |
| (iii) | Section III | : Instructions to the Applicants |
| (iv) | Section IV | : Consideration of Response |
| (v) | Section V | : Application Form and Annexures |

Section I

Eol Information

(GLOBAL INVITATION FOR EXPRESSION OF INTEREST)

NOTICE INVITING GLOBAL EXPRESSION OF INTEREST (EOI)

EOI No.: NVVN / C&M / RE-51 / 2020-21

Date: 23-04-2020

Supply of FCEV Buses & Cars in India

- 1.0 NTPC Limited (A Government of India Enterprise), through its wholly owned subsidiary NTPC Vidyut Vyapar Nigam Limited, invites Global Expression of Interest (EOI) from Fuel Cell based Electric Vehicle (FCEV) Manufacturers of Bus & Car (**herein after called APPLICANT**) for supply of FCEV bus and car in India.
- 2.0 The purpose of inviting this EOI is to seek interest from APPLICANT for supply of FCEV buses and cars for demonstration and use in public transportation.
- 3.0 After identifying the APPLICANT's through EOI who are interested in supplying FCEV bus and car in India, commercial proposals for undertaking pilot project(s) in some of the locations shall be invited for demonstration of technology and shall be scaled up further for additional requirements.
- 4.0 **DOWNLOAD AND SUBMISSION OF EOI**
 - 4.1 Interested APPLICANTS may download the documents of EOI free of cost from <https://eprocurementpc.nic.in>.
 - 4.2 APPLICANTS may send their queries related with EOI through e-mail at ravindrasudehly@ntpc.co.in & nvvncontracts@ntpc.co.in
 - 4.3 The APPLICANT is required to submit his EOI application complete in all respect in hard (printed) or soft form. The copy of EOI application shall be e-mailed to following:- ravindrasudehly@ntpc.co.in, anilkaushik@ntpc.co.in and nvvncontracts@ntpc.co.in
 - 4.4 **Last date for submission of EOI** : **15th May 2020**
 - 4.5 **Last date for queries/ seeking clarifications** : **8th May 2020**
 - 4.6 **Date of opening of EOI response** : **15th May 2020**
 - 4.7 **Response Validity** : **180 Days from Last Date of submission of EOI**
 - 4.8 **For consideration of EOI, APPLICANT is required to e-mail softcopy of EOI through e-mail or send the hard copy, which can be submitted either in person or by registered / speed post till 15th May on the following address :-**

AGM – NVVN Contracts
NTPC Vidyut Vyapar Nigam Limited
2nd Floor, Core-5, SCOPE Complex, 7, Lodhi Rd,
Institutional Area,

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New Delhi, 110003

- 5.0 APPLICANT shall ensure that EOI application is complete in all respect.
- 6.0 NVVN reserves the right to reject or accept any or all applications, cancel / withdraw the EOI process without assigning any reason whatsoever and in such case, APPLICANT shall not have any claim arising out of such action.

Section II

Introduction

1.0 **INTRODUCTION**

NTPC Limited is a leading power generation company of India. It has been ranked No#1 Independent Power Producer (IPP) in the world as per Platts (2018) and 7th in terms of generation per employee.

NTPC Limited produces more than 300 Billion units of electricity annually through its cluster of gas and coal based power stations of more than 62 GW capacity spanning across Indian subcontinent and neighbouring countries. NTPC with a paid up equity of 1.3 billion USD, has revenues from operations exceeding 12.2 billion USD. NTPC group achieved a net profit of 1.7 billion USD in the last financial year and had been consistently paying dividends to its shareholders for the last 26 years.

NTPC, while maintaining focus on decarbonisation of the energy sector, intends to leverage its position of leading power generating company of India and diversify into different opportunities in energy domain. The e-Mobility domain with a targeted addition of 10,000 Nos. EV chargers and rollout of 3000 Nos. EV buses in next 4 yrs is expected to lead e-mobility business. These e-Mobility initiatives are being undertaken in coordination with its wholly owned subsidiary **NTPC Vidyut Vyapar Nigam Limited (NVVN Limited)**.

NVVN Limited has been incorporated in India under the Companies Act 1956 with strategic intent to enable development of power trading in India. It has recently bagged prestigious order from state of Andaman, a union territory of Government of India, to set up necessary charging infrastructure, supply and operate fleet of electric buses also. Besides, backed with strong financial credibility of NTPC, NVVN Limited has excellent resources of technical and managerial manpower pool from NTPC.

2.0 **INTENT OF THE EXPRESSION OF INTEREST (EOI)**

- 2.1 In pursuit of adopting future technologies targeting decarbonisation of the transport sector by promoting utilisation of vehicles utilising hydrogen as a fuel, NVVN intends to undertake pilot projects on Fuel cell based electric vehicles (termed FCEVs). The pilot projects are intended to be undertaken with 5 Nos FCEV Bus & Cars each in Leh and New Delhi in Phase-I. Subsequently, other cities/locations for rollout of FCEVs at other locations may also be included.

These projects envisage production of hydrogen utilising the renewable energy sources and utilising it for use in FCEV buses and cars for public transportation. The major roles and responsibilities of the major stakeholders under the pilot projects shall be as follows:

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NTPC/NVVN's Role:

- Arranging renewable energy for the project for hydrogen generation
- Setting up Hydrogen generation and dispensing station(s) at locations based on the inputs received from various applicants.
- Invest in 10 Nos FCEV Buses and/or 10 Nos FCEV Cars
- Coordinate with local/State transport authorities for operation of vehicles for public transport at locations of the pilot projects.

FCEV Manufacturer/Supplier's Role:

- Providing operational and technical inputs required for planning and operation of the pilot project regarding the vehicles and related eco-system like i.e. hydrogen dispensation requirement, requirement of hydrogen in Kg/km, battery details, passenger capacity, etc.
- Manufacturing and Supply of FCEV vehicles suitable for public transportation
- After sales support of the FCEVs for the duration of pilot project.

The Applicants may express their interest in respect of their offerings along with other inputs as indicated in relevant Annexures/formats.

2.2 Geographical Inputs

(i) Lehi: Lehi is the largest town of union territory of Ladakh in Himalayan region of India. It has a cold desert climate with long, cold winters from late November to early March, with minimum temperatures well below freezing (average (-)14 deg C) for most of the winter. The city gets occasional snowfall during winter. The weather in the remaining months is generally fine and warm during the day. Average annual rainfall is only 102 mm. Situated at an altitude of more than 4500 m (11500 ft), surrounded with mountainous landscape.

(ii) Delhi: Delhi, the capital of India, has subtropical climate. It lies 215 m above Mean Sea Level.

2.3 The response(s) received in the EOI will be utilised by NTPC/NVVN for:

- (a) identification of parties for undertaking pilot project(s) in India at Lehi and New Delhi and other locations

AND/OR

- (b) Formulation of specifications for various components/systems required for execution of pilot project as per Point 2.1 above.

The participants of this EOI may be shortlisted for forthcoming Request for Proposals (RFP) / short term tenders.

2.4 NVVN reserves the right to reject any or all submissions, even without achieving stated objective(s) of EOI, without assigning any reasons and liability thereof.

Section III

Instructions to the Applicants

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3.1 The Applicants should note that:

1. Language of the responses to EOI or any query/ clarifications/ correspondences shall be in English only.
2. For expression of interest, Application Form and Annexures given in Section-V shall be duly filled and sent to NVVN by the APPLICANT in hard or soft form.
3. Applicants should go through Section-I and Section-II thoroughly before filling and submitting the Application Form and Annexures in Section-V.
4. Applicants shall mention the name and contact details of two persons, with complete address, phone number and email ids.
5. NVVN Ltd. may, at its sole discretion, ask for additional information/ documents and/ or seek clarifications from the Applicant(s) after the Deadline for submission of response, inter alia, for the purpose of removal of inconsistencies or infirmities in their responses.

3.2 Enquiries and clarifications

Any clarifications on the EOI may be sought to the following via e-mail:

	Contact #1	Contact #2
Name	: Ravinder Sudehely	Binay Mallik
Designation	: DGM(BD)	AGM(BD) NVVN
Contact no.	: 9650991751	9650998066
Email id	: ravindrasudehely@ntpc.co.in	binaymallik@ntpc.co.in

3.3 Corrigendum

At any time before the last date of submission of EOIs, NVVN may, for any reason, whether at its own initiative or in response to a clarification requested by an Applicant, modify the EOI document. The amendment will be posted on the website and will be binding on the Applicants and the Applicant will give due consideration to the same, while they submit their EOIs, and would invariably enclose documents/ information, as required,

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on account of the amendment, as a part of the EOI. NVVN may, at its discretion, extend the deadline for the submission of EOIs.

3.4 Preparation of the response to EOI

The application of EoI consists of the following:

- (a) Annexure 1 & 2 of Section V
- (b) Schedule I / II (as applicable) of Section V

3.5 Validity of the responses

The Applicant shall submit the responses which shall remain valid up to one hundred and eighty (180) days after the response Deadline (“Response Validity”). NVVN reserve the right to reject any response, which does not meet the aforementioned validity requirement.

NVVN may solicit the Applicant’s consent for an extension of the period of validity of the response. The request and the response in this regard shall be in writing. In the event any Applicant refuses to extend its response validity as requested by NVVN, NVVN shall terminate processing of such Applicant’s responses. An Applicant accepting NVVN request for validity extension shall not be permitted to modify its response.

3.6 Submission of the response to EOI

The responses to the EOI are to be submitted in soft copy via below e-mail format to:
nvvncontracts@ntpc.co.in

Ref. EOI No.

Dated:

Due date of Opening: _____

Submitted to:

Name, designation & address of the concerned officer of NVVN

Submitted by:

Name, address & contact no. of the Applicant

All the pages of the response should be duly stamped and signed by the authorized signatory in whose favour the Power of Attorney is issued.

The responses to the EOI should be submitted within the deadline at the address provided in the Section I of this EOI.

3.7 Opening of responses to the EOI

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The responses to the EOI shall be opened as per the schedule as mentioned in Section I and will be communicated to the Applicants via e-mail.

In the event of any of above dates falling on a day which is not a working day or which is a public holiday, the responses shall be opened on the next working day at the same venue and time.

3.8 Costs and expenses towards response to EOI

The Applicants shall be responsible for all the costs associated with the preparation of the response and participation in discussions and finalization & execution of the documents related with this EOI, NVVN shall not be responsible in any way for such costs, regardless of the conduct or outcome of this short-listing/ selection process.

3.9 Confidentiality

The Applicants undertake to hold in confidence this EOI and any document related or pursuant to this EOI and not to disclose the terms and conditions of the transaction contemplated hereby to third parties, except:

- (a) To their professional advisors;
- (b) To their officers, contractors, employees, agents or representatives, financiers, who need to have access to such information for the proper performance of their activities;
- (c) Disclosures required under applicable Law, without the prior written consent of the other parties of the concerned agreements.

Provided that the Applicant(s) agrees and acknowledges that NVVN may at any time, disclose the terms and conditions of this EOI and any document related or pursuant to this EOI to any person, to the extent stipulated under the applicable Law.

3.10 Disclaimer

- (a) This Expression of Interest (EOI) has been prepared by NVVN Ltd. for response from FCEV bus/car manufacturers to supply and support 5 Nos of FCEV bus and(or) car for 3 years at the identified pilot locations and further scale up.
- (b) In submitting an expressed EOI in response to the EOI, the Applicants certify that it understands, accepts and agrees to the disclaimers on this page. Nothing contained in any other provision of the EOI nor any statements made orally or in writing by any person or party shall have the effect of negating or superseding any of the disclaimers set forth herewith.

Section IV

Consideration of Response

RESPONSIVENESS/EVALUATION METHODOLOGY

5.1 Responsiveness check

The responses submitted by Applicants shall be scrutinized to establish their interest in NTPC/NVVN's requirements for supply of FCEV buses and cars. Following shortcomings / discrepancies shall render the EOI as non-responsive and liable for non-consideration:-

- Responses that are incomplete, i.e. not accompanied by any of the applicable formats inter alia covering letter, Power of attorney, applicable undertakings, provided in Section-V ;
- Responses not signed by authorized signatory and / or stamped in the manner indicated in this EOI;
- Material inconsistencies in the information/ documents submitted by the Applicant
- An Applicant submitting more than one response to this EOI either itself or through an affiliate or subsidiary company;
- Response validity being less than that required as per Clause 3.5 of this EOI;
- Response being conditional in nature;
- Response not received by the response Deadline;
- Response having Conflict of Interest;
- Applicant delaying in submission of additional information or clarifications sought by NVVN, as applicable;

All responses that shall meet the responsive check requirements set out above in this section of the EOI document shall be considered as responsive. In case of non-submission of relevant details as above, the responses may be considered as “**Non-responsive**”, at the sole discretion of NVVN and will not be considered further.

Section V

Application Form & Annexures

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Annexure 1

FORMAT FOR COVERING LETTER CUM UNDERTAKING

(The covering letter should be on the **Letter Head** of the Applicant)

Date : _____

Place : _____

To,
.....

Sub.: EOI for Supply of FCEV buses and cars in India

Ref.: EOI No. _____, dated _____ (the “EOI”)

Dear Sir,

We, the undersigned [insert full name of the “Applicant”] having read, examined and understood in detail the “**Expression of Interest for Supply of FCEV buses and cars in India**”.

1. We confirm that neither we nor any of our Parent Company / Affiliate / Holding Company has submitted response other than this response directly or indirectly in response to the aforesaid EOI.
2. We give our unconditional acceptance to the EOI, issued by NVVN, as amended. In token of our acceptance to the EOI, the same have been signed & stamped by us and enclosed to the response. We hereby confirm that the provisions of the EOI shall be binding on us.
3. We have submitted our response strictly as per provisions and formats of the EOI, without any deviations, conditions and without mentioning any assumptions or notes.
4. We hereby unconditionally and irrevocably agree and accept that the decision made by
5. NVVN in respect of any matter regarding or arising out of the EOI shall be binding on us. We hereby expressly waive any and all claims in respect of EOI process. We confirm that there are no litigations or disputes against us, which materially affect our ability to participate or function under the obligations with regard to EOI.

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5. Details of the contact person(s) from our side are furnished as below:

	Contact Person-1	Contact Person-2
Name		
Designation		
Address		
Contact Numbers		
e-Mail id		

6. We are enclosing herewith the entire response containing duly signed formats in electronic format sent via e mail to: nvvncontracts@ntpc.co.in as per the EOI for consideration.
7. It is confirmed that our response is consistent with all the requirements of submission as stated in the EOI and subsequent communications from NVVN, if any.
8. The information submitted in our response is complete, strictly as per the requirements stipulated in the EOI and is correct to the best of our knowledge and understanding. We would be solely responsible for any errors or omissions in our response.
9. We confirm that all the terms and conditions of our response are valid for acceptance for a period of one hundred and eighty (180) days from the response Deadline.
10. We confirm that we have not taken any deviation so as to be deemed “**Non-Responsive**” as stipulated in Section IV of this EOI.
11. We understand that you are not bound to accept any response you receive.

Yours sincerely

(Name, Designation and Signature of Authorized Person in whose name Power of Attorney is issued)

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Annexure 2

Information to be submitted by Applicant

Category Applied for:	FCEV Bus	FCEV Car
Select the Applicable Category(ies)	<input type="checkbox"/>	<input type="checkbox"/>
Information to be provided as per	Schedule I(enclosed)	Schedule II(enclosed)

(Note: Applicant can apply for more than one category. Documents in support of meeting the respective requirement shall be submitted by the Applicant.)

1. Name of the Company:
2. Legal status of the Company:
3. Brief description of the Company including details of its business groups / subsidiaries / affiliates:
4. Date of Incorporation:
5. Date of Commencement of Business:
6. Full address including Telephone nos. / Fax nos.:
 - (a) Registered Office:
 - (b) Head Office:
 - (c) Address for communication:
 - (d) Contact Details:
 - (e) Office Address in India, if any:
7. Documents to be enclosed:
 - a) **Technical Credentials** – Relevant Product / System catalogues, Experience / Reference List, Copies of Customer Certificates, Engineering strengths, collaborations / tie-ups with manufacturer (if applicable), quality accreditations, etc.
 - b) **Financial Credentials** – Copies of Audited Financial statements (Annual Reports) for last 3 years, Credit Rating, Market share (Domestic / International), Segmental Revenue in the applied category(ies).
 - c) Any other documents considered relevant.

(Sign & Company Seal)
Authorized signatory

(GLOBAL INVITATION FOR EXPRESSION OF INTEREST)**SCHEDULE I****Information to be submitted by FCEV (Bus) Manufacturer**

1. General		
S No	Detail Sought	Details/Response
a	Manufacturer Name	
	Address of the Manufacturing Unit	
b	Year of commencement of operation and Present Manufacturing Capacity of the plant	
c	Vehicle Type - Single Deck / Double Deck) - Right / Left Hand Drive - Floor Height	
d	Mention authorized partner in India, if any	
e	Mention Roadmap for extending further supplies and after sales support in India	
2. Available Dimensions		
a	Size of Vehicle	9 m / 12 m / Any other size Please specify if any other size
b	Passenger Capacity	
	(i) Seating Capacity	
	(ii) Standing Capacity	
3. Power Train		
a	Motor	
b	Transmission	
4. Traction Batteries		
a	Batteries (Type & Capacity)	
5. Fuel Cell System		
a	H2 Tanks (tank specifications like type, volume)	
b	H2 refuel time	
c	FC Stack Nominal Power	
d	Cold Start	
e	Technology	
g	Re-fuelling pressure	
h	Any Additional requirement	
6. Range		
a	Estimated Range	
b	Pilot completed (Brief details : location, Name & Address of Client, Number of buses, ambient conditions (temp, humidity, etc), Date of project, Duration of Project, Total KMs run, Maximum KM run by any Bus, Average Vehicle Performance in KM / Kg of H2 etc.	
7. Braking System		
a	Regenerative Braking (mention brief, if present)	
8. Chassis Details		
a	Axles : Front / Rear	

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b	Suspension	
c	Body Structure	
9. Vehicle Performance(KM/Kg of H2)		
a	with AC	
b	with AC and Heating both inclusive	
c	Without AC	
10. Others		
a	Approach angle	
b	Departure angle	
c	Delivery period, on placement of order	
d	Estimated price	
e	Indicate Compliance to applicable standards for FCEVs (ISA/ IEC / SAE / etc.	
	(i) Safety	
	(ii) Public transportation	
	(iii) Hydrogen Fuelling Interface	
	(iv) Any other applicable for public transportation using Hydrogen Technologies	
f	Any collaboration with FC Manufacturer(s) for supply and dispensation of hydrogen. If Yes, then details of the manufacturer may be provided.	
g	Warranty Coverage (KMs / Yr of service)	
h	FCEVs (Buses) manufactured in last 3 years	
	(i) 2019-2020	
	(ii) 2018-2019	
	(iii) 2017-2018	
i	Annual Turnover (in INR/USD)	
	(i) 2019-2020	
	(ii) 2018-2019	
	(iii) 2017-2018	
	Average Annual Turnover during last 3 FY	

(GLOBAL INVITATION FOR EXPRESSION OF INTEREST)**SCHEDULE II****Information to be submitted by FCEV (Car) Manufacturer**

1. General		
S No	Detail Sought	Details/Response
a	Manufacturer Name	
	Address of the Manufacturing Unit	
b	Year of commencement of operation and Present Manufacturing Capacity of the plant	
c	Vehicle Type (Sedan / hatchback / SUV/etc.) - Right / Left Hand Drive	
d	Mention authorized partner in India, if any	
e	Mention Roadmap for extending further supplies and after sales support in India	
f	Cruising Range	
g	Maximum Speed	
2. Available Dimensions		
a	Size of Vehicle (i) Overall Length (ii) Overall Width (iii) Overall Height	
b	Seating Capacity	
3. Power / Drive Train		
a	Motor	
b	Transmission	
4. Traction Batteries & FC System		
a	Batteries (Type & Capacity)	
5. Fuel Cell System		
a	H2 Tanks (tank specifications like type, volume)	
b	H2 refuel time	
c	FC Stack Nominal Power	
d	Cold Start Capability	
e	Technology	
f	Refuelling Pressure	
h	Any Additional requirement	
6. Range		
a	Estimated Range (city / high-way / combined)	
b	Pilot completed (Brief details : location, Name & Address of Client, Number of buses, ambient conditions(temp, humidity, etc), Date of project, Duration of Project, Total KMs run, Maximum KM run by any Bus, Average Vehicle Performance in KM / Kg of H2 etc.	
7. Braking System		
a	Regenerative Braking (mention brief, if present)	

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8. Electric Motor		
a	Motor Type	
b	Power Output	
c	Peak Torque	
9. Vehicle Performance(KM/Kg)		
a	with AC	
b	with AC and heating both	
c	without AC	
10. Others		
a	Warranty Coverage (Yrs / Nos of KMs)	
c	Delivery period, after placement of order	
d	Estimated Price	
e	Indicate Compliance to applicable standards for FCEVs (ISA / IEC / SAE / etc.)	
	(i) Safety	
	(ii) Public transportation	
	(iii) Hydrogen Fuelling Interface	
	(iv) Any other applicable for public transportation using Hydrogen Technologies	
f	Any collaboration with FC Manufacturer(s) for supply and dispensation of hydrogen. If Yes, then details of the manufacturer may be provided.	
g	FCEVs (Cars) manufactured in last 3 years	
	(i) 2019-2020	
	(ii) 2018-2019	
	(iii) 2017-2018	
h	Annual Turnover (in INR/USD)	
	(i) 2019-2020	
	(ii) 2018-2019	
	(iii) 2017-2018	
i	Average Annual Turnover during last 3 FY	