

REQUEST FOR INFORMATION (RFI)

From

Indian Manufacturers and Qualified Suppliers

For the Potential Procurement of the Broadcast Equipment

Under Phase-III (Batch-3) of FM Radio Broadcasting.

Ref No. BECIL/Proj.- III / Radio Group / FM Phase-III(Batch-3)/2024

Dated: 13.12.2024



Broadcast Engineering Consultants India Limited

(A Government of India Enterprise)

Head Office: 14-B Ring Road, IP Estate, New Delhi- 110002

Tel: 011 23378823 Fax: 01123379885

Corporate Office: BECIL BHAWAN, C-56/A-17, Sector-62, Noida-201 307

Tel: 0120 4177850 Fax: 0120 4177879

[Web: www.becil.com](http://www.becil.com)

TABLE OF CONTENTS

SECTION I - GENERAL INFORMATION & INSTRUCTIONS TO RESPONDENT

A. RFI SCHEDULE AND CRITICAL DATES.....	3
B. RFI INTRODUCTION	4
C. RFI INTENT	5
D. RFI INTERACTIVE / INFORMATIVE SESSION	6
E. CLARIFICATIONS	7
F. MAKE IN INDIA	8
G. SUBMISSION OF RFI RESPONSE :.....	9
H. RFI RESPONSE FORMAT	10
I. Information Requested.....	12
i. FM Broadcast Antenna System	12
ii. FM Combiner System	14
iii. Transmission Line and RF Cables	16
iv. Transmitter 1 KW, 3KW, 5KW & 10KW	17
v. Dehydrator	18
i. After-Sales Support and Warranty for the above equipment's.....	18
ii. Manufacture / Supplier Information	18
Annexure-I. PARTICULAR OF THE RESPONDENT.....	19
Annexure-II. DETAILS OF WORK EXPERIENCE	20
Annexure-III. DETAILS OF MANUFACTURING UNIT ON INDIAN SOIL	21
Annexure-IV. FINANCIAL STRENGTH OF THE RESPONDENT	22
Annexure-V. SELF-DECLARATION FOR NON BLACK LISTING.....	23

A. RFI SCHEDULE AND CRITICAL DATES

Tentative Schedule and Critical Dates are shown below:

	ACTIVITY	SCHEDULED DATE & TIME
1.	RFI Issue to Prospective RESPONDENT	13.12.2024
2.	Interactive / Information session date	23.12.2024
3.	Date and Time for Submission of RFI	Upto 15:00 Hrs. 03.01.2025
4.	Date and Time for Opening of RFI	Online on 15:30 Hrs. on 03.01.2025
5.	Availability of Document	https://www.becil.com
6.	Address for Communication	BECIL Bhawan, C-56 / A -17, Sector - 62, Noida - 201 307.

NOTE: Broadcast Engineering Consultants India Ltd. reserves the right to amend the RFI tentative schedule and critical dates without giving any explanation whatsoever. Corrigendum may be published in this regard on www.becil.com. Respondents are advised to check the website for updates in this regard.

The RFI document can be downloaded from our website www.becil.com.

B. RFI INTRODUCTION

The Ministry of Information and Broadcasting (MIB), Government of India, has announced the opening of Phase-III (Batch-3) of FM Radio Broadcasting for private participation. **The Cabinet has approved a major expansion of the Private FM Radio network across 234 new cities and towns in India. This rollout includes the introduction of 730 new FM channels in these cities.**

A Notice Inviting Applications (NIA) No. N-38014/4/2024-FM dated 14 Oct 2024 has been issued for the E-Auction of the Third Batch of Private FM Radio Phase-III Channels. The Government has also published this notice on its official website (www.mib.gov.in), which will serve as the primary platform for general clarifications, updates, or changes to the notice or auction process.

With the expansion, the government aims to make radio a key tool for regional engagement, fostering local culture, and enhancing communication across the country. The decision reflects a commitment to democratising access to media, empowering local communities, and supporting India's diverse linguistic and cultural landscape. The rollout is anticipated to position FM Radio as a cornerstone of India's local connectivity and information dissemination.

BECIL, the system integrator plays an important role in setting up of Common Transmission Infrastructures (CTIs) across India for Private FM Broadcasters, for operationalization of their Radio Channels. We procure all the desired material (imported & indigenous) on behalf of the Broadcasters, for setting up of CTI and provide end to end solution to the Broadcasters for setting up of the CTIs.

C. RFI INTENT

Broadcast Engineering Consultants India Ltd. is seeking information from Indian Manufacturers and Qualified Suppliers for the potential procurement of the Broadcast Equipment for Phase-III (Batch-3) of FM Radio Broadcasting.

The primary purpose of this RFI :

- Understand the available solutions and products in the Indian market.
- Identify Indian Manufacturers and qualified suppliers with expertise/potential in FM broadcast equipment.
- Evaluate technical and budgetary feasibility based on the information provided by Manufacturer / supplier.
- Gather insights on delivery timelines, support services, and warranty options.

Required Major equipment and accessories are as under : -

1. FM Transmitter (3kW, 5 kW & 10 kW)
2. FM Combiner
3. FM Broadcast Antenna & Accessories
4. Transmission Lines, RF Cable & Accessories
5. Dehydrator

This RFI aims to gather information on Product Specifications, Manufacturer and Supplier Capabilities and delivery timelines in respect of the above mentioned equipment from Indian Manufacturers and qualified suppliers. Additional information may include, but is not limited to, past performance records, lists of available items of work. The responses to this RFI will be used to guide future procurement decisions.

Respondent may respond either for all the Equipment or Combination of equipment or for a Single Equipment as desired.

D. RFI INTERACTIVE / INFORMATIVE SESSION

This Session will be held on 15.00 hours on 23rd December, 2024 at the following venue for responding to the queries of prospective respondent.

Broadcast Engineering Consultants India Ltd.
BECIL BHAWAN,
C - 56/A - 17, Sector - 62,
Noida - 201307
Tele phone - 0120-4177850

During the Informative Session, BECIL officials will summarize the goals of this RFI, and the information requested. BECIL officials will take questions from prospective Respondents during the Informative Session. All the answers given in the Informative Session will be posted on website (www.becil.com) via a Q&A document.

E. CLARIFICATIONS

BECIL has designated the following officer to serve as the official point of contact for this RFI. This individual is the only authorized contact permitted to communicate on behalf of the Broadcast Engineering Consultants India Ltd. (BECIL) about this RFI.

Contact Information:-

Sh. Avnish Kumar Gupta, DGM
BECIL BHAWAN,
C - 56/ A - 17, Sector - 62,
Noida - 201307
Tele phone - 0120-4177850
Email : avnish@becil.com

Note: -

This RFI is for information-gathering purposes only and does not constitute a solicitation for offers or a commitment to procure any items. Respondents will be notified for further procurement actions, if applicable.

F. MAKE IN INDIA

Broadcast Engineering Consultants India Limited (BECIL) is actively seeking to identify and collaborate with leading Indian manufacturers and suppliers specializing in FM broadcasting chain solutions. This initiative aligns with the Government of India's Make in India policy, aimed at fostering domestic production and reducing reliance on imports. The goal is to promote indigenous capabilities, promote local expertise, and support national economic growth through self-reliance in the broadcasting sector.

The applicable definitions shall be as covered under Public Procurement (Preference to Make in India) Order 2017- Revision dated 16.09.2020 issued by DPIIT). These will be applicable, if BECIL decides to progress further procurement, subsequent to the responses received against this RFI.

The manufacturer/supplier classification shall be as follows

1 Manufacturer / Supplier Classification:

- a. Class-I Local Manufacture / supplier LC (Local Component) $\geq 50\%$
- b. Class-II Local Manufacturer / supplier LC (Local Component) $\geq 20\% < 50\%$

As this is a Domestic RFI, only Class I and Class II Local Manufacturers & suppliers are eligible.

G. SUBMISSION OF RFI RESPONSE :

The Proposal should contain the following:-

RFI documents duly completed and signed.

This cover should also be subscribed with:

“REQUEST FOR INFORMATION (RFI) from Indian Manufacturer and Qualified Suppliers for the potential procurement of the Broadcast Equipment for Phase-III (Batch-3) of FM Radio Broadcasting”

The response to this RFI may be forwarded through registered post/courier to the under mentioned address.

**Shri Avnish Kumar Gupta, DGM
Broadcast Engineering Consultants India Ltd,
C - 56/A - 17, Sector -62, Noida 201 307,
Tel: 0120-4177850,**

The Response to RFI should reach at the above address, not later than 15:00 hrs on 03.01.2025. Response received beyond the specified date will be rejected. It is the responsibility of the Respondent to confirm that the Response to RFI has been received on time & to the proper place within the specified dates. Facsimile and electronic replies are not acceptable.

H. RFI RESPONSE FORMAT

All the Respondents are requested to use the same format as given while submitting the response.

1. The RFI must be submitted in English Only. All the documents including the supporting documents/enclosures etc. must be Calibri/Aerial/Times New Roman, font size-12 and fully legible. Supporting documents if in a language other than English must be accompanied by an English translated document. The English version shall prevail in matters of interpretation. Each and every page of the RFI response should be numbered and mention the relevant page no. of the documents in the checklist. RFI Documents which are not legible shall be rejected.
2. The RFI includes official response to Informative session questions, addendum, and any other material published by the BECIL pursuant to the RFI. The Respondent is to disregard any previous draft materials and any oral representations it may have received. All responses to the requirements in Sections (list appropriate section) of this RFI must clearly state whether the proposal will satisfy the referenced requirements, and the manner in which the requirement will be satisfied.
3. BECIL reserves the right to amend any term of the RFI at any point of time before the submission date and Respondent should regularly check the website. Further any amendment done by client after the selection of Respondent, all the amendment will be applicable.
4. The RFI should be duly signed on each page by authorized person in support of having read, understood and complied with the requirements of the tender document. Each page should be properly numbered. Documents authorizing the signatory must accompany the RFI.

5. The RFI complete in all respects must be submitted with requisite information and annexure(s). The RFI should be free from ambiguity, change or interlineations. Incomplete RFI will not be considered and is liable to be rejected without making any further reference to Agency/Respondent/ OEM.
6. RESPONDENT have to take into account any changes/amendments made in the RFI through corrigendum till date of submission of response to RFI.
7. The RESPONDENT shall be ignored, if complete information is not given therein, or if the particulars and data (if any) asked for are not filled in properly.
8. The Respondent Company should not be blacklisted or debarred by any Govt. department/entity, any statutory Authority or any Central/State Govt. PSU's.

I. Information Requested

Respondents are requested to provide detailed information on the following items:

i. FM Broadcast Antenna System

FM Antenna System and accessories are required from Indian manufactures as per category requirement of **20/40/60 KW Dual feed/Single feed circularly polarized 4/6/8 Bay pole type/2-Bay X 4 Sides panel type broadband (88 Mhz-108MHz) FM antenna along with accessories including antenna interface and mounting components.**

The antenna will consist of a set of 4/6/8 dipoles to be mounted on steel tower. The power feeding to the antenna shall be through dual 3-1/8" / 1-5/8" RF feeder cable. Hence, the input connector size of the antenna shall be modified to connect to 3-1/8" / 1-5/8" using required adapter. However, the required power rating of the Antenna shall be provided before using adaptors.

Technical Specifications:

Polarization:	Circular (Right Hand)
Input impedance:	50 Ω (ohm) unbalanced.
Frequency Range:	88-108 MHz
VSWR:	Better than or equal to 1.2:1 over the Operating full band (Frequency Range 88 - 108 MHz). Better than or equal to 1.15:1 over the range of 88-98 or 98-108 MHz (BW=10 MHz). Value over entire frequency range (88-108 MHz) to be enclosed in graphical form.
Maximum Average input Power Rating:	As per desired configuration.
Number of Bays:	4/6/8/ pole type or 2x4 panel type, as required
Antenna gain vs. bandwidth	To be provided
Downward Beam Tilt:	0.5° (0.5 degree)/0.75° (0.75 degree)/1.0° (1degree)
Null fill	$\geq 10\%$.

Mechanical Conditions:

- External Material: Panels / Dipoles will be made of stainless steel or ho dip galvanized steel or marine Brass. Power Dividers & Rigid feed lines will be made of Marine Brass or Copper. End Connectors on Dipoles will be of standard & reputable makes & their makes should be indicated in Tender. All electrical

contacts must be silver plated. Clamps shall be constructed of hot dip galvanized M.S. material or light weight alloy/fiber reinforced materials. All fasteners will be of Stainless Steel or high tensile non corrosive material.

- Internal Material:

Inner lines of dipoles will be of copper or Brass. All electrical contacts will be silver plated. All inners and bullets will be made of Beryllium copper and silver plated. Insulators will be made of high quality pure Teflon/ PTFE. All joints to be made completely air tight & water tight

- Accessories

Antenna supply to be complete with power dividers, Adaptors / reducers; clamps & fasteners for dipoles, reflector panels etc. Full details, list and schematic drawing of 4/6/8 dipole VHF FM antenna & associated hardware system / subsystem drawings to be forwarded with RFI.

ii. FM Combiner System

Constant Impedance (Balanced) FM Combiner units as per given **Specification Sheet**.
The set of one combiner shall be complete in all respect as required for connecting to Input and output rigid lines.

SPECIFICATIONS FOR CONSTANT IMPEDANCE (BALANCED) VHF BAND-II FM COMBINERS (3 POLE)

PARAMETER	SPECIFICATION	COMPLIANCE
FREQUENCY RANGE	88 -108 MHz (TUNABLE)	
CHANNEL SPACING	>/= 800KHz	
IMPEDANCE	50 Ohm	
RETURN LOSS (NB)	>/= 30 dB, +/- 200 KHz	
RETURN LOSS(WB)	>/= 28 dB, +/- 200 KHz	
INSERTION LOSS (NB)	</= 0.35 dB	
INSERTION LOSS (WB)	</=0.15 dB	
ISOLATION (WB TO NB)	>/= 50 dB	
ISOLATION (NB TO WB)	>/=30 dB	
ISOLATION (NB TO NB)	>/= 50 dB	
THIRD ORDER INTERMOD	</= -80dBc	
GROUP DELAY	</= 40 nsec, +/- 100 KHz	
INPUT RF POWER(NB)	>/= 3.5 Kw of each Combiners	
INPUT RF POWER (WB)	Combiner-1 >/= 5 KW	
OUTPUT RF POWER	>/= 10 KW	
INPUT CONNECTOR (NB)	1-5/8" EIA Unflange	
INPUT CONNECTOR (WB)	1-5/8" EIA Unflange	
OUTPUT CONNECTOR (WB)	To be Specified by supplier	
NARROW BAND INPUT CENTRE FREQUENCY MHz (FACTORY TUNED)	
COOLING	Natural Convection	

ENVIRONMENTAL (Operational)	-10 TO + 50 deg. C/ RH-95% NON-CONDENSING		
DIMENSIONS	TO BE SPECIFIED BY SUPPLIER		
WEIGHT	TO BE SPECIFIED BY SUPPLIER		

NOTE # Narrow Band I/P, Wide Band and Wide Band O/P may vary as per requirements /
No. of Broadcasters.

iii. Transmission Line and RF Cables

- Type and length option.
- RF Cable specifications (impedance, loss rate, etc.).
- Cable durability and maintenance.

SPECIFICATIONS FOR AIR DIELECTRIC RF FEEDER CABLE

Sr No	Parameter	Specification	Compliance	Remarks
1	Cable Type	Air Dielectric, Corrugated		
2	Cable size (Nominal)	1-5/8" and 3-1/8"		
3	Inner Conductor	Corrugated Copper Tube		
4	Outer Conductor	Corrugated Copper		
5	Impedance	50 ± 0.5 Ohms		
6	Average power rating (@100 MHz)	>16 KW (1-5/8") >40 KW (1-3/8") (at 40° C ambient temp)		
7	Peak power rating (@100 MHz)	>260 KW (1-5/8") > 640 kW (3-1/8")		
8	Attenuation (@100 MHz)	< 0.7 dB/100 meters (1-5/8") < 0.4 dB/100 meters (3-1/8") (at 20° C)		
9	Frequency range	88 -108 MHz		
10	VSWR	≤ 1.2		
11	Operating temperature Range	-10° C to +80° C		
12	Pressurization	To be specified by supplier		
13	Dimensions (after packing)	To be specified by supplier		
14	Weight (after packing)	To be specified by supplier		

iv. Transmitter 1 KW, 3KW, 5KW & 10KW

General

Transmitter Type	Solid State VHF Power Amplifier for FM. Compatible for future up gradation to HD Radio, FM+DRM
Exciter	FM digital stereo Exciter
Frequency Range	87.5 to 108.0 MHz, 10 kHz steps
Operating Modes	FM, (Future upgradable to HD/ DRM)
Frequency Stability	As per ITU RR
Power Stability	$\leq \pm 0.25$ dB
Asynchronous AM SNR	>60 dB
Synchronous AM SNR	>50 dB
RF Harmonic and Spurious Suppression	As per ITU Radio regulation
VSWR	Operation up to 1:1.2 and power fold back $\geq 1:1.4$

v. Dehydrator

Dehydrator: Automatic Dehydrator (Pressurization System) with tubing & accessories:-

Redundant, Connected in Circuit complete in all respect (for Pressurization in entire RF feeder cable (1-5/8, 3-1/8 etc.) and Antenna system.

S.No.	Technical Parameters	Technical Specifications
1	Dehydrator Type	Automatic
2	Operating Voltage	Single Phase, 230 volt (RMS) ± 10 %, 50 Hz ± 4%
3	Ambient Humidity maximum:	95%
4	Mounting	Floor mounted / Rack Mounted

i. After-Sales Support and Warranty

- The respondents are to provide detailed information on after-sales services and technical support for the equipment mentioned in the RFI including:
 - ◆ Warranty duration and terms.
 - ◆ Optional service packages (if available) for After Sales Support.

ii. Manufacture / Supplier Information

Please include the following details in your response:

- Company background and years of experience in broadcasting equipment/similar domain.
- Details of Branches / Regional Offices & Manufacturing Plants of the Company.
- Past projects or installations relevant to FM broadcast Equipment/similar equipment.
- Client references and testimonials (if available).
- Turnover and Profit & Loss Statements for the past 3 Financial Years.

PARTICULARS OF THE RESPONDENT:

1.	Name of company	
2.	Office Address /Telephone No / Fax No / email id / website	
3.	Year of establishment	
4.	Status of the Company	
5.	Name of Directors	i) ii) iii)
6.	Names of principle person concerned with this work with title and Telephone No / Fax/ Email Id, Etc.	
7.	Whether registered with the registrar of companies /registrar of firms. If so, mention number and date.	i) ii) iii)
8.	In case of change of Name of the Firm, former Name / Names and year/ years of establishment:	
9.	Whether registered for sales tax purposes. If so, mention number and date. Furnish also copies of sales tax clearance certificate.	
10.	Whether an assessee of income tax. If so, mention permanent account number. Furnish copies of income tax clearance certificate.	
11	State Annual turnover of the company Furnish copies of audited balance sheet and profit & loss account (audited) for the last three years.	
12	Particulars and place of similar type of works done in a single order. (Furnish details in a separate sheet and enclose copy of the employers certificate)	
13	Specify the maximum value of single work executed in the past three years.	
14	Status and details of disputes/ litigation/ arbitration, if any.	

Signature of Authorized Signatory

Place: _____

Date: _____

Address: _____

Mobile: _____

Email ID: _____

DETAILS OF WORK EXPERIENCE

PARTICULARS OF SIMILAR PRODUCT SUPPLIED

S. No	Name of Project with address	Short Description of item supplied	Date of Award of work	Date of supply completed	Name and address of Client with contact no.	Value of work executed
1						
2						
3						

Signature of Authorized Signatory

Place: _____

Date: _____

Address: _____

Mobile: _____

Email ID: _____

Annexure-III

DETAILS OF MANUFACTURING UNIT ON INDIAN SOIL

S.No	NAME OF PRODUCT	ADDRESS	MANUFACTUREING OR ASSEMBILING UNIT	MANUFACTUR EING OR ASSEMBILING UNIT CAPACITY	ANY OTHER INFORMATION
1					
2					
3					

Signature of Authorized Signatory

Place: _____

Date: _____

Address: _____

Mobile: _____

Email ID: _____

FINANCIAL STRENGTH OF THE RESPONDENT

S. No.	Last 3 Financial Year	Net -Worth Status (Positive / Negative)	Whether Profitable (yes / No.)	Annual Profit After Tax. (In INR)	Overall Annual Turnover (In INR)
1					
2					
3					

(Note : Statutory Auditor's / Chartered Accountant Certificate should be submitted alongwith proposal)

Signature of Authorized Signatory

Place: _____

Date: _____

Address: _____

Mobile: _____

Email ID: _____

SELF-DECLARATION FOR NON BLACK LISTING

[ON RESPONDENT'S LETTER HEAD]

RESPONDENT Ref. No.

Dated :

To,
The Chairman and Managing Director,
Broadcast Engineering Consultants India Limited,
56-A/17, Block-C, Sector-62, Noida-201307 (U.P.)

We, M/s. ----- hereby declare that the firm/company namely M/s. --
-----, as on the date of response submission, has not been blacklisted or debarred by
any of the Central Government or State Government or any organization under Central/ State
Government or any Statutory Authority, or any Public- Sector Undertaking.

M/s has not been found guilty of any criminal offence by any court of
law in India or abroad.

M/s, its directors and officers have not been convicted of any criminal offence
related to their professional conduct or the making of false statement or misrepresentations as to
their qualifications to enter into procurement contract within a period of three years preceding
the commencement of the procurement process or have not been otherwise disqualified
pursuant to debarment proceedings.

Yours faithfully

For,

Signature of Authorized Signatory

Place: _____

Date: _____

Address: _____

Mobile: _____

Email ID: _____