सत्यमेव जयते

प्रसार भारती/ PRASAR BHARATI
भारत का लोक सेवा प्रसारक/ INDIA'S NATIONAL PUBLIC SERVICE BROADCASTER
आकाशवाणी महानिदेशालय/DIRECTORATE GENERAL: ALL INDIA RADIO
योजना और विकास एकक आकाशवाणी भवन, संसद मार्ग,नई दिल्ली-110001
P & D UNIT, AKASHVANI BHAWAN, SANSAD MARG, NEW DELHI-110001
[क्रय अनुभाग/PURCHASE SECTION]

No. 1(65)11/NIT-40/2020-D(P)E/134 Dated: 04.03.2021

Corrigendum/ Addendum-V to NIT- 40/2020

The following amendments, comments, extension of bid submission / opening date for the tender mentioned below are hereby authorized-

Tender no. 1(64)1/5kW/2020/D(P)675-D(P-S)Cell/E for the Supply, Design & integration of 5 kW Digital Compatible (HD & DRM+) VHF FM Solid state MOSFET technology based broadcast transmitter in (1+1) configuration with automatic changeover unit, Power Supply System and associated equipments/ items in two mobile containers along with Supply & Design of Foldable pneumatic tower with trolly, VHF FM Antenna system for use anywhere in India as mobile station/ transmitter set up [AIR Specification No: 5 kW FM TX. (Containerised)/03/April/2020-D (TD/FM)] :

Reference: Letter dated 18.01.2021, 30.01.2021, 13.02.2021 & 19.02.2021 submitted by M/s Falcon Technologies Pvt. Ltd., letter dated 15.01.2021 submitted by M/s R&S India Pvt. Ltd. via email dated 16.01.2021 and letter dated 04.02.2021 by M/s GatesAir via email dated 04.02.2021.

A. M/s Falcon Technologies Pvt. Ltd letter dated 18.01.2021

1. 2.11 AUTOMATIC CHANGEOVER CONTROL UNIT (ACU):

The following Para may be read as

Any one of the 5 kW Digital Compatible FM transmitter unit shall be selectable as master or slave automatically in active standby mode. When the RF power of the 1 st transmitter goes down by 3 dB or more, it should be sensed as a failure to switch to second transmitter automatically. In case of failure of the complete system, there should be provision of three trials wherein against each trial, the time shall be adjustable up to 1 minute individually before final switch OFF.

in place of

Any one of the 5 kW Digital Compatible FM transmitter unit shall be selectable as master or slave automatically in active standby mode. When the RF power of the 1 st transmitter goes down by 3 dB or more, it should be sensed as a failure to switch to second transmitter automatically. In case of failure of the complete system, three trials at interval adjustable up to 1 minutes shall be done before final switch OFF.

2. SECTION IV-M, GENERAL DESCRIPTION AND SILENT FEATURES OF MOBILE CONTAINERS

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It is clearly mentioned that "The Body of each container shall build on 4 Wheel Base with approx. Suggestive Size of 6000mm (L) × 2200mm (H) × 2500mm (W)".

Hence, n o change is required.

A. M/s Falcon Technologies Pvt. Ltd letter dated 30.01.2021

1. Clause 1.15 under Section-IV, **TECHNICAL SPECIFICATION OF SILENT TYPE DIESEL GENERATOR SET WITH AUTOMATIC MAINS FAILURE (AMF) PANEL**

The clause may be read as

CLEARANCE : The supplier should have to arrange clearance from CEA (**if applicable**) for DG set before the same is offered for acceptance to AIR at site.

in place of

CLEARANCE : The supplier should have to arrange clearance from CEA for DG set before the same is offered for acceptance to AIR at site.

2. Clause 2.1, II-1 under Section-IV, **TECHNICAL SPECIFICATION OF SILENT TYPE DIESEL GENERATOR SET WITH AUTOMATIC MAINS FAILURE (AMF) PANEL**

(i). The word " **air cooled** " in respect of TECHNICAL **SPECIFICATION OF SILENT TYPE DIESEL GENERATOR SET WITH AUTOMATIC MAINS FAILURE (AMF) PANEL** may be read as " **air cooled/liquid cooled** ".

(ii). All the power ratings of the equipments mentioned in the tender specifications shall also take into account/consideration the extreme climatic conditions already mentioned in the tender documents at requisite places.

However, the following Para may be read as

1. Scope:
This specification is for Supply, Installation, Testing and Commissioning of a Silent type 30 kVA capacity (at Site conditions) Three phase, 50 Hz, 240 volt AC, air-cooled Diesel Generator set with brush-less excitation for FM transmitters and associated equipments. The (DG set) will be provided with suitable acoustic enclosure **with trolley** for indoor/outdoor location in tropical climate. The schedule of requirement is given which should be read with this specification.

in place of

1. Scope:
This specification is for Supply, Installation, Testing and Commissioning of a Silent type 30 kVA capacity (at NTP) Three phase, 50 Hz, 240 volt AC, air-cooled Diesel Generator set with brush-less excitation for FM transmitters and associated equipments. The (DG set) will be provided with suitable acoustic enclosure **with trolley** for indoor/outdoor location in tropical climate. The schedule of requirement is given which should be read with this specification.

3. Clause 2.1, II-7 under Section-IV, **TECHNICAL SPECIFICATION OF SILENT TYPE DIESEL GENERATOR SET WITH AUTOMATIC MAINS FAILURE (AMF) PANEL**

No change is required.

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4. Clause 2.1, II-12 under Section-IV, **TECHNICAL SPECIFICATION OF SILENT TYPE DIESEL GENERATOR SET WITH AUTOMATIC MAINS FAILURE (AMF) PANEL**

Class of Insulation:

The above clause may be read as

Class of Insulation: Rotor Class 'F' stator Class 'B' **or better** .

in place of

Class of Insulation: Rotor Class 'F' stator Class 'B'.

A. M/s Falcon Technologies Pvt. Ltd letter dated 13.02.2021

1. No change is required.

2. No change is required.

3. SECTION IV, I - TECHNICAL SPECIFICATION OF RF COAXIAL (FOAM TYPE) CABLE

The following Para may be read as

All following accessories associated with RF Coaxial Cables are to be provided:

(i).Hoisting stockings

(ii). Earthing kits

(iii). Wall gland

(iv). Cable Clamps (adjustable height) with nut, bolt & washer and associated accessories

Any other accessories offered for the completeness of the system (Item wise details & part No., if any, of the offered and included materials are to be given by the tenderer)
(v) **Suitable arrangement for cable reel for housing the cable shall be provided.**

in place of

All following accessories associated with RF Coaxial Cables are to be provided:

(i). Hoisting stockings

(ii). Earthing kits

(iii). Wall gland

(iv). Cable Clamps (adjustable height) with nut, bolt & washer and associated accessories

Any other accessories offered for the completeness of the system (Item wise details & part No., if any, of the offered and included materials are to be given by the tenderer)

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4. Please refer " **Introduction** " at Page No. 36 regarding type of tower.
Hence no change is required.

5. No. change is required.

6. No change is required.

A. M/s Falcon Technologies Pvt. Ltd letter dated 19.02.2021

All the power ratings of the equipments mentioned in the tender specifications shall also take into account/consideration the extreme climatic conditions already mentioned in the tender documents at requisite places.

Hence, no change is required.

B. M/s R&S India Pvt. Ltd. letter dated 15.01.2021

1. 2.0 TRANSMITTER CONFIGURATION :

(k). Both transmitter equipment of (1+1) configuration shall be housed in separate rack having pleasing appearance. All metal works shall be protected against rust and corrosion. All materials used in transmitter shall be non-inflammable and fire retardant.

No change is required.

2. SECTION IV-M, GENERAL DESCRIPTION AND SILENT FEATURES OF MOBILE CONTAINERS

The Body of each container shall build on 4 Wheel Base with approx. Suggestive Size of 6000mm (L) × 2200mm (H) × 2500mm (W).

No change is required.

3. SECTION IV, L-TECHNICAL SPECIFICATION OF SETC OF VENTILATION EQUIPMENT AIR COOLED SPLIT TYPE (REVERSIBLE)

The word " **reversible** " wherever used in Section-IV & Section-V in respect of **TECHNICAL SPECIFICATION OF SETC OF VENTILATION EQUIPMENT AIR COOLED SPLIT TYPE (REVERSIBLE)** may be treated as **deleted** and may be read as **TECHNICAL SPECIFICATION OF SETC OF VENTILATION EQUIPMENT AIR COOLED SPLIT AC (INVERTER TYPE)**

Accordingly, following clauses are also amended as under:

1. General:

The clause may be read as

Air cooled split AC unit (**Inverter type**) [**2 Nos. × 2.0 TR (Ton)**] shall be provided for cooling transmitter and associated equipments/items in transmitter equipment container.

in place of

Air cooled split type A/C Reversible unit [4 Nos. x 2.0 TR (Ton)] shall be provided for cooling transmitter and associated equipments/items in transmitter equipment container.

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2. Technical specification:

(ii). Heating/ Cooling Capacity: 2 kW

The above clause may be read as

(ii). Cooling Capacity: 6400W or above

in place of

(ii). Heating/ Cooling Capacity: 2 kW

(iv). Power Consumption:

The above clause may be read as

(iv). Power Consumption: Five star **(Year 2020)** for better efficiency

in place of

(iv). Power Consumption: Five star for better efficiency

(vi). Protections:

The above clause may be read as

(vi). Protections: Refrigerant High Pressure
Refrigerant Low Pressure
Cooling Thermostat
Time Delay Relay
Overload for Motors

in place of

(vi). Protections: Refrigerant High Pressure
Refrigerant Low Pressure
Over heat for Heaters
Heating / Cooling Thermostat
Time Delay Relay
Overload for Motors

(vii). Controls

The above clause may be read as

(vii). Controls (a). ON/Off
(b). Cool

in place of

(vii). Controls (a). ON/Off
(b). Heat
(c). Cool

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In addition to above, the quantity of Ventilation Equipment Air Cooled Split AC may be read as 2 Nos. in place of 4 Nos. wherever used in the specification. The requirement of Air conditioning in Transmitter Equipment Container may be read as 4 TR (Ton) in place of 8 TR (Ton) at Page No. 67.

4. 1.16 ENVIRONMENTAL CONDITIONS FOR TRANSMITTER AND ALL ASSOCIATED EQUIPMENT:

Working altitude: Up to 4500 meters AMSL

All the power ratings of the equipments mentioned in the tender specifications shall also take into account/consideration the extreme climatic conditions already mentioned in the tender documents at requisite places.

Hence, no change is required.

5. 2.0 TRANSMITTER CONFIGURATION:

2.9 COOLING SYSTEM:

No change is required.

6. TECHNICAL SPECIFICATIONS OF TRANSMITTER

The following clause may be read as

3.3.3	Analog and AES/EBU input Level for ±75kHz (peak) Deviation	ANALOG AUDIO INPUT: Input Level adjustable from -6 dBu to +6 dBu AES/EBU AUDIO INPUT: Input Level adjustable from -12dBFS to 0dBFS

in place of

3.3.3	Analog and AES/EBU input Level for ±75kHz (peak) Deviation	ANALOG AUDIO INPUT: Input Level adjustable from -6 dBu to +6 dBu AES/EBU AUDIO INPUT: Input Level adjustable from -15dBFS to 0dBFS

7. SECTION IV, J- TECHNICAL SPECIFICATION OF THE FOLDABLE PNEUMATIC TOWER

The word " **pneumatic** " wherever used in the whole specification in respect of **TECHNICAL SPECIFICATION OF THE FOLDABLE PNEUMATIC TOWER** may be read as " **pneumatic/ electro-mechanical** ".

8. SECTION IV, H - TECHNICAL SPECIFICATION OF 2-BAY VHF FM ANTENNA SYSTEM

No change is required.

9. SECTION IV, J- TECHNICAL SPECIFICATION OF THE FOLDABLE PNEUMATIC TOWER

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(i). 6. SUB- SECTION (TECHNICAL SPECIFICATIONS)

Please refer " **Introduction** " at Page No. 36 regarding type of tower.

However, the following clause may be read as

A). TECHNICAL FEATURES:

The electro-mechanical tower should have following technical features:

a. Extending the tower
b. Lowering the tower

in place of

A). TECHNICAL FEATURES:

The pneumatic tower should have following technical features:

a. Extending the tower

b. Rotating the tower

c. Lowering the tower

(ii). 6. SUB- SECTION (TECHNICAL SPECIFICATIONS)

The following clause may be read as

B). Tower to be designed for the following parameters.

(i). Nested height: less than 6M

(ii). Extended height: 30 M

(iii). Type of mounting: External support bracket

(iv). Number of sections: 7

(The inner top section will be with the provision for mounting antenna system)

(v). Material: Structural steel conforming to IS:2062 amended to date

(vi). Base plate: As per design

(vii). Weight of tower: As per design

(viii). Wind speed: 198Kmph

(ix) Loading due to Antenna system & cable:
Approx. 150 Kg Dead Weight & 300 Kg wind load @ 198kmph)

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in place of

B). Tower to be designed for the following parameters.

(i). Nested height : less than 6M

(ii). Extended height : 30 M

(iii). Type of mounting: External support bracket

(iv). Number of sections : 7

(The inner top section will be with the provision for mounting antenna system)

(v). Tube diameter range : As per design

(vi). Tube material :Steel/Alloy

(vii). Base plate : As per design

(viii). Weight of tower: As per design

(ix). Wind speed: 198Kmph

(x) Loading due to Antenna system & cable:

Approx. 150 Kg Dead Weight & 300 Kg wind load @ 198kmph)

10. SECTION IV, J- TECHNICAL SPECIFICATION OF THE FOLDABLE PNEUMATIC TOWER

Please refer " **Introduction** " at Page No. 36.

Hence, no change is required.

11. SECTION IV-M, GENERAL DESCRIPTION AND SILENT FEATURES OF MOBILE CONTAINERS

2.1 Transmitter Equipment Container:

The following Para may be read as

The transmitters and all the electronic equipments for broadcast, monitoring & control panels, etc., are located in this container. Tenderer is required to keep the aesthetics of the transmitter equipment container.

in place of

The transmitters and all the electronic equipments for broadcast, monitoring & control panels, etc., are located in this container. Tenderer is required to keep the aesthetics of the transmitter equipment container. This zone shall be thermally and acoustically insulated. For acoustic insulation the walls and roof shall be lined with 50mm thick glass wool and secured by perforated Aluminium Sheet.

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2.2 Power Supply Container:

The following Para may be read as

The Power Supply Container houses the DG Set, UPS, Ladder and other accessories. Provision shall be made for supporting and anchoring these items on the base frame.

in place of

The Power Supply Container houses the DG Set, UPS, Ladder and other accessories. Provision shall be made for supporting and anchoring these items on the base frame. For acoustic insulation the walls and roof shall be lined with 50mm thick glass wool and secured by perforated Aluminium Sheet.

12. 1.8 DELIVERY:

No change is required.

13. 2.0 TRANSMITTER CONFIGURATION :

(e). 5 kW Digital Compatible VHF FM solid state MOSFET technology based broadcast Transmitter shall be frequency agile and capable of giving $\geq$ 5 kW power continuously with 5% headroom.

Please also refer **INSPECTIONS, (A) INSPECTION OF TRANSMITETRS** under **Annexure-I** .

C. M/s GatesAir letter dated 04.02.2021

1. Clause 1.19, DEMONSTRATION OF THE OFFERED EQUIPMENT THROUGH WEB CONFERENCING

The clause may be read as

The tenderer will have to arrange a demonstration of the offered Transmitter through web-conferencing during technical evaluation stage, if required by AIR, within 10 days of the issue of request letter. Accordingly, the tenderer should be in readiness for web demonstration, failing which the tender offer is liable to be rejected without any further correspondence.

Functional checking as per AIR specification under Section-II and performance measurements as per AIR specification under Section-III will be carried out on a single transmitter during web demonstration. The tenderer is also required to show the Digital compatibility of the transmitter (HD **OR** DRM+) during web demonstration. Complete system in (1+1) configuration will be carried out during PDI only.

The tenderer will also have to make all necessary arrangement for functional checking/testing of the offered transmitter with full rated power including equipments required for checking the digital compatibility of the transmitter in (HD **OR** DRM+) during web demonstration. All expenses & liabilities for demonstration through web-conferencing of above offered VHF FM transmitter will be borne by the tenderer. This web demonstration will be purely for Technical Evaluation of the offered VHF FM transmitter and is without any commitment for acceptance of offer.

in place of

The bidder will have to arrange a demonstration of the offered VHF FM Transmitter through web-conferencing during technical evaluation stage, if required by All India Radio, within 10 days of the

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issue of request letter. Accordingly, the tenderer should be in readiness for web demonstration, **failing which the tender offer is liable to be rejected without any further correspondence.**

Functional checking as per AIR specification under Section-II and performance measurements as per AIR specification under Section-III will be carried out on a single transmitter during web demonstration. Complete system with (1+1) configuration and digital compatibility of transmitter will be carried out during PDI only.

The tenderer will also have to make all necessary arrangement for testing/checking of the complete offered VHF FM transmitter with full rated power during web demonstration.

All expenses & liabilities for demonstration through web-conferencing of above offered VHF FM transmitter will be borne by the tenderer. This web demonstration will be purely for Technical Evaluation of the offered VHF FM transmitter and is without any commitment for acceptance of offer.

2. Clause A.2
No change is required.

3. Clause B. (c) (ii)
No change is required.

In addition to above, following amendments are also carried out in the specification.

1. Clause 3.9 (3.9.1), 3.9 (3.9.2) & 3.9 (3.9.3), DIGITAL (DRM+ OR HD Radio) OPERATION of TECHNICAL SPECIFICATIONS OF TRANSMITTER under Section-III

The above referred clause 3.9.1, 3.9.2 & 3.9.3 are now merged and may be read as

3.9.1	MER (Modulation Error Ratio) at 25% of nominal RF Output Power of transmitter for pure digital mode in HD/DRM+.	Better than or equal to 32dB @ 16-QAM.

in place of

3.9	**DIGITAL (DRM+ OR HD Radio) OPERATION:**	
3.9.1	Digital operation	The Transmitter should be compatible for HD Radio and DRM+ mode for future upgradation whenever required.
3.9.2	MER (Modulation Error Ratio) for HD Radio	To be given by the tenderer.
3.9.3	MER (Modulation Error Ratio) for DRM+	To be given by the tenderer for 16-QAM & 4-QAM respectively.
3.9.3	Simulcast FM operations with HD/DRM+	Analog & Digital Power with bandwidth requirement for HD & DRM+ may be specify.

2. SECTION IV-M, GENERAL DESCRIPTION AND SILENT FEATURES OF MOBILE CONTAINERS

1 . GENERAL SCOPE

Following Para added in GENERAL SCOPE.

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The body of each container shall be designed in such a manner that there must be adequate provision for air-lifting/lifting the entire container as and when required.

3. 2.0 TRANSMITTER CONFIGURATION:

2.9 COOLING SYSTEM:

The clause may be read as

Full details of cooling system (Air Cooled/Liquid cooled) and subsystems shall be given. Details of cooling system and filters shall be given. Quantum of heat required to be handled by the cooling system is also to be indicated. Any special space requirement for installation of cooling system is also to be indicated.
However, in case of air-cooled transmitter, open looped cooling system shall be deployed with the provision of fresh air with filters etc. The filters shall be of washable type and 5 Sets of filter shall be provided with each transmitter unit. Exhaust duct shall be provided with two-way louvers for recycling exhaust air, if required.

in place of

Full details of cooling system (Air Cooled/Liquid cooled) and subsystems shall be given. Details of cooling system and filters shall be given. Quantum of heat required to be handled by the cooling system is also to be indicated. Any special space requirement for installation of cooling system is also to be indicated.

4. SECTION IV-M, GENERAL DESCRIPTION AND SILENT FEATURES OF MOBILE CONTAINERS

5. HYDRAULIC STABILIZER:

The clause may be read as

TRUCK TRAILER STABILIZER JACK STAND:
Four Nos. of integrated stabilizer jack stand for each container trailer shall be supplied by the Tenderer. The capacity of the jack shall be 6 tons each suitable for hilly terrain.
In extended condition this shall lift the container off the ground by a minimum of 50mm. (with tyres under fully inflated condition.)

in place of

HYDRAULIC STABILIZER:
Four Nos. of hydraulic stabilizer jacks along with the Hydraulic Power pack for levelling of each container, and integrated into the body, shall be supplied by the Tenderer. The controls and monitoring units and level indicator are to be incorporated in the main control panel. The capacity of the jack shall be 6 tons each. It should be possible to control each jack independently for levelling of the container.
In the retracted position, there shall be a clearance of 300mm from the ground. In extended condition this shall lift the container off the ground by a minimum of 50mm. (with tyres under fully inflated condition.)

5. SECTION IV, J- TECHNICAL SPECIFICATION OF THE FOLDABLE PNEUMATIC TOWER

1. INTRODUCTION:

The following Para may be read as

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The Body of the trolly shall be built on 4 Wheel Base and shall have approx. suggestive size of 6000mm (L) × 2200mm (H) × 2500mm (W). The actual size of the mobile trolly for foldable Tower should be as per O&M and regulatory requirements as per applicable standards/ IS and complete details shall be submitted by the tenderer in the tender document. Four Nos. of integrated stabilizer jack stand for trolly shall be supplied by the Tenderer. The capacity of the jack shall be 6 tons each suitable for hilly terrain.

in place of

The Body of the trolly shall be built on 4 Wheel Base and shall have approx. suggestive size of 6000mm (L) × 2200mm (H) × 2500mm (W). The actual size of the mobile trolly for foldable Tower should be as per O&M and regulatory requirements as per applicable standards/ IS and complete details shall be submitted by the tenderer in the tender document.

Extension of Tender submission / opening dates:

Sl. No.	Tender Ref. No.	Description of Stores	Tender Submission Date (Online)		Tender Opening Date (Online)	
			FOR	READ	FOR	READ
1	No.1(64)1/ 5kW/2020 /D(P)675-D(P-S) Cell/E	Supply, Design & integration of 5 kW Digital Compatible (HD & DRM+) VHF FM Solid state MOSFET technology based broadcast transmitter in (1+1) configuration with automatic changeover unit, Power Supply System and associated equipments/ items in two mobile containers along with Supply & Design of Foldable pneumatic tower with trolly, VHF FM Antenna system for use anywhere in India as mobile station/ transmitter set up.	03.03.2021 (02:30 PM)	**24.03.2021 (02:30 PM)**	03.03.2021 (03:00 PM)	**24.03.2021 (03:00 PM)**

NOTE:

i. The bid forms, General Instructions to Bidders and other details including amendments/ changes can be viewed/ downloaded from the website http://prasarbharati.eproc.in.

ii. Tender notice is also available on the Prasar Bharati website www.prasarbharati.gov.in. (using the link: Tender) and CPP PORTAL on website http://eprocure.gov.in.

04.03.2021

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