



Bid Number/बोली क्रमांक (बिड संख्या):
GEM/2024/B/5146757
Dated/दिनांक : 19-07-2024

Bid Document/ बिड दस्तावेज़

Bid Details/बिड विवरण	
Bid End Date/Time/बिड बंद होने की तारीख/समय	08-08-2024 15:00:00
Bid Opening Date/Time/बिड खुलने की तारीख/समय	08-08-2024 15:30:00
Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)	175 (Days)
Ministry/State Name/मंत्रालय/राज्य का नाम	Ministry Of Environment Forest And Climate Change
Department Name/विभाग का नाम	Na
Organisation Name/संगठन का नाम	N/a
Office Name/कार्यालय का नाम	Delhi
Item Category/मद केटेगरी	Virtual Machine (Compute) - Government Community Cloud (GCC); Red Hat Enterprise Linux; 32; 16; 1:2; Application; Primary DC; 500
Contract Period/अनुबंध अवधि	3 Year(s)
Minimum Average Annual Turnover of the bidder (For 3 Years)/बिडर का न्यूनतम औसत वार्षिक टर्नओवर (3 वर्षों का)	1500 Lakh (s)
Years of Past Experience Required for same/similar service/उन्हीं/समान सेवाओं के लिए अपेक्षित विगत अनुभव के वर्ष	3 Year (s)
MSE Exemption for Years Of Experience/अनुभव के वर्षों से एमएसई छूट/ and Turnover/टर्नओवर के लिए एमएसई को छूट प्राप्त है	Yes
Startup Exemption for Years Of Experience/अनुभव के वर्षों से स्टार्टअप छूट/ and Turnover/ टर्नओवर के लिए स्टार्टअप को छूट प्राप्त है	Yes
Document required from seller/विक्रेता से मांगे गए दस्तावेज़	Experience Criteria,Bidder Turnover,Certificate (Requested in ATC),Additional Doc 1 (Requested in ATC),Additional Doc 2 (Requested in ATC),Additional Doc 3 (Requested in ATC),Additional Doc 4 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया	No

Bid Details/बिड विवरण	
Type of Bid/बिड का प्रकार	Two Packet Bid
Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय	3 Days
Estimated Bid Value/अनुमानित बिड मूल्य	46700000
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation
Financial Document Indicating Price Breakup Required/मूल्य दर्शाने वाला वित्तीय दस्तावेज ब्रेकअप आवश्यक है	Yes

EMD Detail/ईएमडी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
EMD Amount/ईएमडी राशि	200000

ePBG Detail/ईपीबीजी विवरण

Advisory Bank/एडवाइजरी बैंक	State Bank of India
ePBG Percentage(%) / ईपीबीजी प्रतिशत (%)	3.00
Duration of ePBG required (Months) / ईपीबीजी की अपेक्षित अवधि (महीने).	38

(a). EMD EXEMPTION: The bidder seeking EMD exemption, must submit the valid supporting document for the relevant category as per GeM GTC with the bid. Under MSE category, only manufacturers for goods and Service Providers for Services are eligible for exemption from EMD. Traders are excluded from the purview of this Policy./जेम की शर्तों के अनुसार ईएमडी छूट के इच्छुक बिडर को संबंधित केटेगरी के लिए बिड के साथ वैध समर्थित दस्तावेज प्रस्तुत करने हैं। एमएसई केटेगरी के अंतर्गत केवल वस्तुओं के लिए विनिर्माता तथा सेवाओं के लिए सेवा प्रदाता ईएमडी से छूट के पात्र हैं। व्यापारियों को इस नीति के दायरे से बाहर रखा गया है।

(b). EMD & Performance security should be in favour of Beneficiary, wherever it is applicable./ईएमडी और संपादन जमानत राशि, जहां यह लागू होती है, लाभार्थी के पक्ष में होनी चाहिए।

Beneficiary/लाभार्थी :

AO(M)
Central Pollution Control Board (Parivesh Bhavan), East Arjun Nagar Shahdara, Delhi - 110032
(Meena Sharma)

Splitting/विभाजन

Bid splitting not applied./बोली विभाजन लागू नहीं किया गया

MII Compliance/एमआईआई अनुपालन

MII Compliance/एमआईआई अनुपालन

Yes

1. If the bidder is a Micro or Small Enterprise as per latest definitions under MSME rules, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

2. If the bidder is a Startup, the bidder shall be exempted from the requirement of "Bidder Turnover" criteria and "Experience Criteria" subject to their meeting of quality and technical specifications. If the bidder is OEM of the offered products, it would be exempted from the "OEM Average Turnover" criteria also subject to meeting of quality and technical specifications. In case any bidder is seeking exemption from Turnover / Experience Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer.

3. The minimum average annual financial turnover of the bidder during the last three years, ending on 31st March of the previous financial year, should be as indicated above in the bid document. Documentary evidence in the form of certified Audited Balance Sheets of relevant periods or a certificate from the Chartered Accountant / Cost Accountant indicating the turnover details for the relevant period shall be uploaded with the bid. In case the date of constitution / incorporation of the bidder is less than 3-year-old, the average turnover in respect of the completed financial years after the date of constitution shall be taken into account for this criteria.

4. Years of Past Experience required: The bidder must have experience for number of years as indicated above in bid document (ending month of March prior to the bid opening) of providing similar type of services to any Central / State Govt Organization / PSU. Copies of relevant contracts / orders to be uploaded along with bid in support of having provided services during each of the Financial year.

5. Estimated Bid Value indicated above is being declared solely for the purpose of guidance on EMD amount and for determining the Eligibility Criteria related to Turn Over, Past Performance and Project / Past Experience etc. This has no relevance or bearing on the price to be quoted by the bidders and is also not going to have any impact on bid participation. Also this is not going to be used as a criteria in determining reasonableness of quoted prices which would be determined by the buyer based on its own assessment of reasonableness and based on competitive prices received in Bid / RA process.

Excel Upload Required/एक्सेल में अपलोड किए जाने की आवश्यकता :

Financial Breakup - [1720784697.xlsx](#)

Additional Qualification/Data Required/अतिरिक्त योग्यता /आवश्यक डेटा

Scope of Cloud Service:As per the Scope of the Work

Instruction to Bidder:As per the Scope of the Work

This Bid is based on Quality & Cost Based Selection (QCBS) . The technical qualification parameters are :-

Parameter Name	Max Marks	Cutoff Marks	Qualification Methodology Document
Average Annual Turnover	20	10	View File
Number of Certifications	20	08	View File
No. of cloud hosting projects	20	05	View File
Certification of Proposed Data Centre	15	10	View File
Technical Presentation	25	10	View File

Total Minimum Qualifying Marks for Technical Score: 43

QCBS Weightage(Technical:Financial):30:70

Pre Bid Detail(s)

Pre-Bid Date and Time	Pre-Bid Venue
29-07-2024 11:00:00	IT Division Central Pollution Control Board (Parivesh Bhavan) East Arjun Nagar, Shahdara Delhi - 110032 Contract Person - Sh. Archit Uprit, IT Division (Mob : 9958161440) Sh. Sant Ram, Material Division (Mob: 8178386362)

Virtual Machine (Compute) - Government Community Cloud (GCC); Red Hat Enterprise Linux; 32; 16; 1:2; Application; Primary DC; 500 (49)

Technical Specifications/तकनीकी विशिष्टियाँ

Specification	Values
Core	
Deployment Model	Public Cloud , Virtual Private Cloud (VPC) , Government Community Cloud (GCC)
Operating System	Microsoft Windows Server , Red Hat Enterprise Linux , Oracle Linux , SUSE Linux Enterprise Server , CentOS Operating System , Ubuntu Operating System , Windows Server 2012(64 bit) / RHEL , Windows Server 2016 Standard , SUSE for SAP , RHEL for SAP , SUSE for SAP or RHEL for SAP , Microsoft Windows Server or RHEL , Microsoft Windows Server or RHEL or CentOS
RAM(in GB)	8 , 16 , 24 , 32 , 48 , 64 , 96 , 128 , 256 , 512 , 1024 , 2 , 4 , 6 , 12 , 36 , 56 , 144
vCPU	4 , 8 , 12 , 16 , 32 , 64 , 128 , 20 , 28 , 36 , 2
Physical Core to vCPU Ratio	1:1 , 1:2 , 1:4 , 1:3
Type of Server	Application , Database , Web Server , NA , OCR Server , Search Server
Usages Type (Primary / DR)	Primary DC , DR Site
Storage (in GB)	50 , 100 , 150 , 200 , 300 , 400 , 500
Type of Storage Media/Drive	HDD , SSD , NA , SSD with NVMe
Mandatory Inclusion with each Virtual Machine	As defined in definition and SLA documents which is integral part of Virtual Machines

Specification	Values
CPU Launch Year	Upto Year 2015 , Beyond Year 2015 , 2018 , 2019 , 2020
System Software / DB	Wildfly 13 (Jboss AS) , Oracle , SQL Server Standard 2016 , JBOSS EAP 6.2/ WebSphere 9.x or above , MongoDB Server License , NA
Planned Duration in months	3 , 6 , 9 , 12 , 15 , 18 , 21 , 24 , 27 , 30 , 33 , 36 , 48 , 60 , 1
Addon(s)/एडऑन	

Additional Specification Documents/अतिरिक्त विशिष्टि दस्तावेज़

Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Number of Virtual Machines	Additional Requirement/अतिरिक्त आवश्यकता
1	Meena	110032, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Shahadara	49	<ul style="list-style-type: none"> Planned Duration (in Months) : 36

Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

1. Generic

OPTION CLAUSE: The buyer can increase or decrease the contract quantity or contract duration up to 25 percent at the time of issue of the contract. However, once the contract is issued, contract quantity or contract duration can only be increased up to 25 percent. Bidders are bound to accept the revised quantity or duration

2. Service & Support

AVAILABILITY OF OFFICE OF SERVICE PROVIDER: An office of the Service Provider must be located in the state of Consignee. DOCUMENTARY EVIDENCE TO BE SUBMITTED.

3. Generic

Actual delivery (and Installation & Commissioning (if covered in scope of supply)) is to be done at following address

CENTRAL POLLUTION CONTROL BOARD
PARIVESH BHAVAN
EAST ARJUN NAGAR

SHAHDARA
DELHI - 110032

4. **Forms of EMD and PBG**

Bidders can also submit the EMD with Fixed Deposit Receipt made out or pledged in the name of A/C (Name of the Buyer). The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of EMD, the FDR will be released in the favour of the bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Bidder has to upload scanned copy/ proof of the FDR along with bid and has to ensure delivery of hardcopy to the Buyer within 5 days of Bid End date/ Bid Opening date

5. **Generic**

Bidder financial standing: The bidder should not be under liquidation, court receivership or similar proceedings, should not be bankrupt. Bidder to upload undertaking to this effect with bid.

6. **Generic**

Bidders shall quote only those products (Part of Service delivery) in the bid which are not obsolete in the market and has at least 3 years residual market life i.e. the offered product shall not be declared end-of-life by the OEM before this period.

7. **Certificates**

Bidder's offer is liable to be rejected if they don't upload any of the certificates / documents sought in the Bid document, ATC and Corrigendum if any.

8. **Generic**

Buyer Organization specific Integrity Pact shall have to be complied by all bidders. Bidders shall have to upload scanned copy of signed integrity pact as per Buyer organizations policy along with bid. [Click here to view the file](#)

9. **Buyer Added Bid Specific ATC**

Buyer uploaded ATC document [Click here to view the file](#).

10. **Service & Support**

Dedicated /toll Free Telephone No. for Service Support : BIDDER/OEM must have Dedicated/toll Free Telephone No. for Service Support.

11. **Service & Support**

Escalation Matrix For Service Support : Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support.

12. **Generic**

Malicious Code Certificate:

The seller should upload following certificate in the bid:-

(a) This is to certify that the Hardware and the Software being offered, as part of the contract, does not contain Embedded Malicious code that would activate procedures to :-

- (i) Inhibit the desires and designed function of the equipment.
- (ii) Cause physical damage to the user or equipment during the exploitation.
- (iii) Tap information resident or transient in the equipment/network.

(b) The firm will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Right (IPRs) are caused due to activation of any such malicious code in embedded software.

13. **Purchase Preference (Centre)**

Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for percentage of 100% of total value.

14. **Purchase Preference (Centre)**

Preference to Make In India products (For bids less than 200 Crore):Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document 50%. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. In case Buyer has selected Purchase preference to Micro and Small Enterprises clause in the bid, the same will get precedence over this clause.

15. **Payment**

PAYMENT OF SALARIES AND WAGES: Service Provider is required to pay Salaries / wages of contracted staff deployed at buyer location first i.e. on their own and then claim payment from Buyer alongwith all statutory documents like, PF, ESIC etc. as well as the bank statement of payment done to staff.

16. **Past Project Experience**

Proof for Past Experience and Project Experience clause: For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria:a. Contract copy along with Invoice(s) with self-certification by the bidder that service/supplies against the invoices have been executed.b. Execution certificate by client with contract value.c. Any other document in support of contract execution like Third Party Inspection release note, etc.**Proof for Past Experience and Project Experience clause:** For fulfilling the experience criteria any one of the following documents may be considered as valid proof for meeting the experience criteria:a. Contract copy along with Invoice(s) with self-certification by the bidder that service/supplies against the invoices have been executed.b. Execution certificate by client with contract value.c. Any other document in support of contract execution like Third Party Inspection release note, etc.

17. **Forms of EMD and PBG**

Successful Bidder can submit the Performance Security in the form of Fixed Deposit Receipt also (besides PBG which is allowed as per GeM GTC). FDR should be made out or pledged in the name of

CENTRAL POLLUTION CONTROL BOARD

A/C (Name of the Seller). The bank should certify on it that the deposit can be withdrawn only on the demand or with the sanction of the pledgee. For release of Security Deposit, the FDR will be released in favour of bidder by the Buyer after making endorsement on the back of the FDR duly signed and stamped along with covering letter. Successful Bidder has to upload scanned copy of the FDR document in place of PBG and has to ensure delivery of hard copy of Original FDR to the Buyer within 15 days of award of contract.

18. Generic

1. The Seller shall not assign the Contract in whole or part without obtaining the prior written consent of buyer.
2. The Seller shall not sub-contract the Contract in whole or part to any entity without obtaining the prior written consent of buyer.
3. The Seller shall, notwithstanding the consent and assignment/sub-contract, remain jointly and severally liable and responsible to buyer together with the assignee/ sub-contractor, for and in respect of the due performance of the Contract and the Sellers obligations there under.

Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. If any clause(s) is / are incorporated by the Buyer regarding following, the bid and resultant contracts shall be treated as null and void and such bids may be cancelled by GeM at any stage of bidding process without any notice:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process. (However, in bids for [attached categories](#), trials are allowed as per approved procurement policy of the buyer nodal Ministries)
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

This Bid is governed by the [General Terms and Conditions/सामान्य नियम और शर्तें](#), conditions stipulated in Bid and [Service Level Agreement](#) specific to this Service as provided in the Marketplace. However in case if any condition specified in General Terms and Conditions/सामान्य नियम और शर्तें is contradicted by the conditions stipulated in Service Level Agreement, then it will over ride the conditions in the General Terms and Conditions.

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action

in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो।बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्रवाई का आधार होगा।

---Thank You/धन्यवाद---

Scope of Work
for
Procuring Cloud Services
(Virtual Machine)
for
Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change)

Parivesh Bhawan, East Arjun Nagar,

Delhi-110032

1. Eligibility Criteria

S. No.	Clause	Documents required
1	Bidder should be a limited company (Public/Private) registered in India under the Companies Act, 1956/2013 or Partnership firm / LLP registered in India under Partnership Act 1932/2008 as amended for the last 3 years as on RFP issuance date.	<ul style="list-style-type: none"> Certificate of Incorporation/ AOA / MOA / Registered Partnership Deed
2	The Bidder should valid PAN and GST certificate	<ul style="list-style-type: none"> PAN & GSTIN Certificate
3	The Bidder must have average annual turnover of Rs.15 Crore in last three (3) financial years, i.e. FY 2021-22, 2022-23 and 2023-24	<p>Audited Financial statements for the FY 2021-22, 2022-23 and 2023-24.</p> <p>Certified letter from the Chartered Accountant for Turnover.</p>
4	<p>The Bidder should have any 04 certificates from below certifications / compliance document:</p> <ol style="list-style-type: none"> ISO 27001 ISO 20000 ISO 27017 ISO 27018 Soc 2 Type 2 and SOC 3 	Certificates from relevant Governing body
5	The bidder should be empanelled with MeitY for providing Government Community Cloud (GCC) infrastructure	Documentary Proof to be attached
6	The proposed Data Centre (Both DC and DR) should be at least Uptime Tier III certified from authorized agency.	Certificate from Uptime Institute or any equivalent third-party certifying agency for DC site compliance with Tier III requirements as per Uptime Institute norms. Undertaking on a SP's letterhead, clearly mentioning that the Data Centre is complying With Rated 3/ Tier III requirements.
7	The bidder should have at least 2 Data Centre facilities in India in 2 separate seismic zones	Self-declaration of bidders on their letter head duly signed by the authorized person.
8	Bidder should not have been Blacklisted by the Central / any of	Self-declaration of bidders on their letter head duly signed by the authorized person.

S. No.	Clause	Documents required
	the State Governments/PSU in India as on date of bid submission.	

2. Responsibilities of Bidder/Cloud Service Provider:

The cloud service provider shall be responsible for following:

1. Bidder shall follow the guidelines of MeitY for providing cloud services to govt. organization.
2. Bidder shall be responsible for setting up, installation, configuration, management, upgradation, and migration of application servers, database servers/storage.
3. Maintain and manage the required network components for the cloud services procured by CPCB. Setup and configure the VMs, storage, Network, Database etc. at DC site meeting RPO and RTO (Recovery Time Operations) requirements of CPCB Service provider shall provide access to logs for analysis.
4. The bidder shall responsible to deploy 01 System Administrator without any extra cost as per follows:
 - a. Requirement of 1 Onsite System Administrator (on Central Pollution Control Board Premise) having B.E./B.Tech/M.Sc/MCA or equivalent in IT or CS Stream with experience as System Administrator in Linux with 2+ years of experience.
 - b. Should know about Linux Installation.
 - c. LVM configuration and troubleshooting.
 - d. Patching and fixing updates of Linux Servers. 6. User/ Group Administration and System Security.
 - e. Installing Software Applications and Packages using tar ball, RPM, Yum, Linux Server hardening and Server monitoring.
 - f. Creating and managing cron in the beginning of day and end of day process for different servers.
 - g. Web Hosting through Apache/Nginx/Tomcat.
 - h. Managing Apache Web Server, Tomcat Web Server, Nginx Web Server.
 - i. Load Balancing (Tomcat cluster, Apache/Nginx web server).
 - j. Application data Backup and restore.
 - k. Installation of RDBMS configuration and Tuning.
 - l. Administration of Database users, replication of master/slave server, access rights & taking regular database backups & restoring them in restored in archival server.
 - m. Knowledge of DBMS queries.
 - n. Awareness of Virtualization and Cloud Environment.
 - o. Installation of monitoring tools like Nagios server configuration etc.
6. Service provider shall not delete any data before and without approval of CPCB during the period of Contract and will not delete any data after the expiry of Contract without written approval from CPCB.
7. Service provider will implement anti-malware and conduct regular vulnerability scanning and penetration testing of systems and infrastructure.
8. Service Provider shall configure external connections to the hosting infrastructure required to upload database/files etc.
9. Service provider is expected to understand the complete architecture of existing applications and processes necessary for smooth migration of applications and databases including interdependencies between applications and data.
10. Service provider shall be responsible for deployment of Security patches on Hardware and Software.
11. Bidder will be responsible for migrating to cloud and managing the cloud services.

12. The bidder shall be responsible to monitor the cloud services and ensure 99.9 % uptime of all services as per agreement.
13. Deployment of New Applications on cloud, security administration, planning and implementation of cloud management and monitoring portals for complete infrastructure and services procured.
14. Provide access to CPCB for installation/commissioning and management of Virtual Machines.
15. Provisioning of scalable storage capacity as per requirements of CPCB and availability of such services as per agreement.
16. Service provider shall ensure committed time taken for restoration of data from Backup as claimed.
17. Service provider should ensure and meet all standard data formats for data transfer /portability from cloud to CPCB machines and vice-versa.
18. Service Provider shall provide inter-operability support with regard to APIs and Data Portability.
19. Service provider shall be responsible for security of Facilities, Physical Security of Hardware, Network infrastructure and virtualization Infrastructure.
20. Service provider shall workout migration plan for co-existence of non-cloud and cloud architecture during and after the migration period in close coordination with CPCB.
21. Service provider shall provide necessary training to CPCB or its Systems Administrator on management of cloud VMs.
22. Service provider shall provide necessary technical documentations, design documentations, standard Operating Procedures (SOPs) required for operations and management of services.
23. All risk management related to migration, migration plan shall be jointly worked out with CPCB and Cloud Service Provider.
24. Service provider shall have provision to provide and support additional VM requirements and related services.
25. The service provider shall provide necessary details including sizing, current loads, utilization, expected growth/demand and other details for scale up/scale down in close coordination with CPCB.
26. Service provider shall be responsible for implementation of tools and processes for monitoring the availability of applications, responding to system troubleshooting.
27. Monitoring of performance, resource utilization and other events such as failure of services, degradation of services, availability of network, storage, Database systems, OS etc.
28. Provide the relevant reports, including real time as well as past data/reports on dashboard.
29. Service provider shall be responsible for conduct of DR Drills and follow Standard Operating Procedures (SOP) and inform CPCB in advance for such drills conducted twice a year normally, with 15 days' prior notice.
30. Service Provider shall monitor Internet Links, MPLS -VPN including bandwidth, data transfer, response time and packet loss and perform corrective measures.
31. The Service Provider will train and transfer the knowledge to the replacement agency or CPCB to ensure continuity and performance of services post expiry of Contract.
32. The CSP shall be responsible for provisioning the required IT infrastructure (server/ virtual machines), storage for hosting applications. The CSP must manage and maintain the VM's including underlying Hardware, Operating systems, Database, Antivirus etc. for the contract period. Inbuilt Antispam/ Malware/ Antivirus threats control software as per defined SLAs in this tender document.
33. The CSP will be responsible for provisioning of requisite network infrastructure (including switches, router, firewalls, and load balancers) to ensure accessibility of the servers as per defined SLA. All the Equipment/ Devices in the path must be in HA mode.
34. Backup solutions need to be the responsibility of the CSP for storage & server for copying of uploads data other than tape backup.
35. CSP must provide a dedicated or shared backup tool for backup of the Database, Applications etc. The backup must be automated through backup agents.
36. Daily incremental backup with retention period of 7 Days.
37. Weekly full backup with retention period of 1 Month.
38. Monthly full backup with retention period 3 months.
39. The CSP must provide Public/ Private static IP address for all the VM's.

40. The CSP should configure, schedule, and manage backups of all the data including but not limited to files, folders, images, system states, databases, and enterprise applications as per the backup policy.
41. The managed CSP should ensure inter-operability support and data portability in case of change/migration to another CSP.
42. Ownership of data generated on usage of the system at any point in time during the contract or expiry shall rest absolutely with CPCB.
43. The hosted solution must include a firewall along with the IPS/ IDS Features.
44. The CSP should provide the infrastructure performance and availability of the cloud services being used, as well as alerts that are automatically triggered by changes in the health of those services.
45. Event-based alerts, to provide proactive notifications of scheduled activities, such as any changes to the infrastructure powering the cloud resources.
46. Ability to discover all the provisioned resources and view the configuration of each.
47. Notifications should be triggered each time a configuration changes.
48. The CSP should provide access to their data center to CPCB officials for physical review of the deployment once a year, if needed.
49. CSP should handover the monitoring and maintenance reports, SLA report on monthly basis.
50. The CSP should provide 24*7 helpdesk support along with ticket management system and an escalation matrix.
51. The CSP facility should at a minimum implement the security toolset: Security & Data Privacy comprising of Data & Network Security including Anti-Virus, Firewall, IPS, Syslog, SSL, DDOS Protection, Rights Management, Vulnerability Assessment, Data Privacy, Data Encryption, and Authentication & Authorization.
52. The CSP should report forthwith in writing of information security breaches to the Corporation by unauthorized persons (including unauthorized persons who are employees of any Party) either to gain access to or interfere with the Project's Data, facilities, or Confidential Information.
53. CPCB information will not be communicated / published / advertised by the CSP to any person/ organization without the prior written consent/ permission of the CPCB.
54. The location of the data (text, audio, video, or image files, and software, that are provided to the CSP for processing, storage, or hosting) will be guaranteed to reside in India.
55. The CSP to comply with all the below mentioned points:

a. The CSP to comply with all the below mentioned points:

- i. CSP should enable CPCB to provision cloud resources through self-service admin portal.
- ii. The user admin portal should be accessible via secure method.
- iii. CPCB should be able to shutdown and reboot virtual machines from admin portal.
- iv. CPCB should be able to provision additional resources from the admin portal as and when required.
- v. CPCB should be able to take snapshot of virtual machines from admin portal.
- vi. CPCB should be able to provision all additional storage required for cloud services.
- vii. CPCB should get list of all cloud resources from admin portal.

b. Operational Management

- i. CSP should provide access of cloud virtual machines by RDP in case of Windows servers.
- ii. CSP should enable CPCB to get console access of cloud virtual machine from portal and perform operations.
- iii. CSP should upgrade its hardware time to time to recent configuration to deliver expected performance for CPCB.
- iv. Investigate outages, perform appropriate corrective action to restore the hardware, operating system, and related tools.

c. Compatibility Requirements

- i. CSP must ensure that the virtual machine format is compatible with other CSPs.
- ii. CSP should give provision to import/ export cloud VM template from other CSPs.
- iii. CSP should ensure connectivity to and from other CSPs if required.

d. Cloud Data Centre specifications

- i. The data center of CSP must be within India only.
- ii. All the physical servers, storage, and other IT hardware from where cloud resources are provisioned for CPCB must be within Indian data centers only.
- iii. The data centers of CSP should be spread across different geolocation in different seismic zones.
- iv. The CSP data centers should comply/certified Tier III data center norms.

e. Cloud Storage Service Requirements

- i. CSP should provide scalable, dynamic, and redundant storage.
- ii. CSP should offer provision from self-admin portal to add more storage as and when require by CPCB.
- iii. CSP should have block disk offering as well as file/object disk offering to address different kind of CPCB needs.
- iv. CSP must give provision to attach new disk block to any cloud VM CPCB needs from self-service portal.

f. Cloud Security Requirements

- i. CSP should ensure that OS provisioned as part of cloud virtual machine should be patched with latest security patch.
- ii. In case the CSP provides some of the System Software as a Service, CSP is responsible for securing, monitoring, and maintaining the System and any supporting software.
- iii. CSP should have built-in user-level controls and administrator logs for transparency and audit control
- iv. CSP cloud platform should be protected by fully managed Intrusion detection system using signature, protocol, and anomaly-based inspection thus providing network intrusion detection monitoring.

g. Virtual Machine specifications

- i. The Cloud virtual machine provided by CSP should be provisioned on redundant physical infrastructure.
- ii. The cloud virtual machines should be scalable in terms of RAM and CPU whenever required.
- iii. CPCB should be able to provision cloud virtual machine of operating system like Windows.
- iv. CSP should clearly define policies to handle data in transit and at rest.
- v. CSP should not delete any data at the end of agreement without consent from CPCB.
- vi. CSP should provide facility to make template from virtual machines.
- vii. CSP should enable CPCB to select configuration of cloud virtual machine-like custom RAM, CPU, and disk.
- viii. CSP should enable CPCB to add either block storage volume or file level storage block to cloud VM from admin portal.
- ix. CSP should enable CPCB to select even 1 GB RAM configuration of cloud virtual machines.
- x. CSP should have provision to live migration of virtual machine to another physical servers in case of any failure.
- xi. CSP should provide a facility to use different types of disks like SAS, SSD based on the type of application.

h. Cloud resource and Network monitoring

- i. CSP should give provision to monitor the network traffic of cloud virtual machine
- ii. CSP must make provision of resource utilization i.e. CPU graphs of each cloud virtual machine
- iii. CSP must offer provision to monitor network uptime of each cloud virtual machine.
- iv. CSP must make provision of resource utilization graph i.e. RAM of each cloud virtual machine. There should be provision to set alerts based on defined thresholds. There should be provision to configure different email addresses where alerts can be sent.
- v. CSP must make provision of resource utilization graph i.e. disk of each cloud virtual machine. There should be graphs of each disk partition and emails should be sent if any threshold of disk partition utilization is reached.
- vi. CSP should give provision to monitor the uptime of cloud resources. The report should be in exportable form.
- vii. CSP must give provision to monitor the load of Linux/ Windows servers and set threshold for alerts.
- viii. CSP should make provision to monitor the running process of Linux/ Windows servers. This will help CPCB to take the snapshot of processes consuming resources.
- ix. CSP must ensure that there should be historical data of minimum 6 months for resource utilization.
- x. CSP must ensure that audit logs of scalability are maintained.
- xi. CSP must ensure that there are sufficient graphical reports of cloud resource utilization and available capacity.

56. Managed Services:

a. Network and Security Management

- i. Monitoring & management of network link proposed as part of this solution.
- ii. Bandwidth utilization, latency, packet loss etc.
- iii. Call logging and co-ordination with vendors for restoration of links if need arises.
- iv. Addressing the ongoing needs of security management including, but not limited to, monitoring of various devices / tools such as firewall, intrusion protection, content filtering and blocking, virus protection, and vulnerability protection through implementation of proper patches and rules.
- v. Ensuring that patches / workarounds for identified vulnerabilities are patched/ blocked immediately.
- vi. Ensure a well-designed access management process, ensuring security of physical and digital assets, data and network security, backup, and recovery etc.
- vii. Adding/ Changing network address translation rules of existing security policies on the firewall.
- viii. Diagnosis and resolving problems related to firewall, IDS/ IPS.
- ix. Managing configuration and security of Demilitarized Zone (DMZ) Alert/ advise CPCB about any possible attack/ hacking of services, unauthorized access / attempt by internal or external persons etc.

b. Server Administration and Management

- i. Administrative support for user registration, User ID creation, maintaining user profiles, granting user access, authorization, user password support, and administrative support for print, file, and directory services.
- ii. Setting up and configuring servers and applications as per configuration documents/ guidelines provided by CPCB.
- iii. Installation/ re-installation of the server operating systems and operating system utilities.
- iv. OS Administration including troubleshooting, hardening, patch/ upgrades deployment, BIOS & firmware upgrade as and when required/ necessary for

Windows, Linux, or any other OS proposed as part of this solution whether mentioned in the RFP or any new deployment in future.

- v. Ensure proper configuration of server parameters, operating systems administration, hardening and tuning.
- vi. Regular backup of servers as per the backup & restoration policies stated by CPCB from time to time.
- vii. Managing uptime of servers as per SLA.
- viii. Preparation/ Updation of the new and existing Standard Operating Procedure (SOP) documents on servers & applications deployment and hardening.

c. Backup & Restore Services

- i. CSP must provide backup of cloud resources. The backup tool should be accessible.
- ii. Monitoring and enhancement of the performance of scheduled backups, schedule regular testing of backups and ensure retention as per requirement.
- iii. Ensuring prompt execution of on-demand backups & restoration of volumes, files and database applications whenever required.
- iv. Backup and restoration of Operating System, application, databases, and file system etc. in accordance with requirement.
- v. Real-time monitoring, log maintenance and reporting of backup status on a regular basis. Prompt problem resolution in case of failures in the backup processes.
- vi. Media management including, but not limited to, tagging, cross-referencing, storing (both on-site and off-site), logging, testing, and vaulting in fireproof cabinets if applicable.
- vii. Generating and sharing backup reports periodically.
- viii. Coordinating to retrieve off-site media in the event of any disaster recovery.
- ix. Periodic Restoration Testing of the Backup.
- x. Maintenance log of backup/ restoration.

d. Database Management Service

- i. Installation, configuration, maintenance of the database (Cluster and/or Standalone).
- ii. Regular health checkup of databases.
- iii. Regular monitoring of CPU & Memory utilization of database server, Alert log monitoring & configuration of the alerts for errors.
- iv. Space monitoring for database table space, Index fragmentation monitoring and rebuilding.
- v. Performance tuning of Databases.
- vi. Partition creation & management of database objects, Archiving of database objects on need basis.
- vii. Patching, upgrade & backup activity and restoring the database backup as per defined interval.
- viii. Schedule/ review the various backup and alert jobs.
- ix. Setup, maintain and monitor the 'Database replication' / Physical standby and Assess IT infrastructure up-gradation on need basis pertaining to databases.

3. General Terms & Conditions

- A. Monitoring tools shall not capture or send CPCB data to any other establishment over Cloud.
- B. The ownership of Data as well as application shall be of CPCB and CPCB can ask for full copies of Data and applications at any time.
- C. E-BIDDER shall provide complete inter-operability support with regard to available APIs, data Portability, application portability in case CPCB decides to Change the cloud service provider including DR or backups.
- D. No data shall be shared with any Third Party without written approval of Competent Authority of CPCB unless legally required by Court Orders.

- E. E-BIDDER shall be responsible for managing and controlling the underlying cloud infrastructure including O.S, Storage, network, Security. Deployed Applications shall be managed and controlled by CPCB.
- F. As part of PaaS the e-Bidder shall provide all necessary technical support for backend infrastructure like O.S, Databases etc.
- G. Prior Intimation (at least 15 days) shall be given to CPCB by Service provider for any scheduled maintenance of servers.
- H. The E-Bidder shall be responsible for all upgrades of Operating systems, Database and related tools including patch management.
- I.E-BIDDER shall be responsible for Data and Application Migration of existing applications, which CPCB would like to migrate to new environments of cloud. Necessary requirements shall be shared by CPCB in phased manner.
- J.E-Bidder shall be responsible for deploying new applications on Cloud, user administration, security administration, planning and implementation with monitoring tools for infrastructure and Services procured.
- K. Service Provider should be able to provide load balancing for proper distribution of traffic.
- L. Services providers should be in position to provide DR Services.

4. Infrastructure and Services Requirements of CPCB

S.No.	Required Specification as per GeM parameter	Qty.	Unit Price	Total Amount for 03 years (Including taxes)
1	vCPU-16 RAM-32GB Storage-500GB OS-RedHat Physical Core to vCPU Ratio – 1:2 Type of Server – Application/Database Usage Type – Primary Server Storage Media –SSD CPU launch year- 2020 System Software/DB - MySQL/Postgress SQL/other supported software as per requirement Note: Costing of 01 onsite System Administrator for 03 years should be included in the VM cost.	49 Nos		
2	SAN Storage (size in TB)	5 TB		
		49 Nos	Total Amount	

Following services should be included with each Virtual Machine as per MietY document

S.No	Attributes	Minimum Inclusion
1	Processor	i. Minimum frequency of 2.0 GHz
2	Network	i. Subnet/network segment capability should be available ii. VM should be firewall protected iii. Mapping of Private IPs to Public IPs for inbound/outbound traffic iv. Bandwidth should be atleast 100 Mbps
3	Security	i. Antivirus ii. Identity and Access Management including Single-Sign-On for managing access to Cloud services of the CSP iii. Encryption of data associated with VM iv. System log should be available v. Multi-factor authentication vi. Hardening & patch management of underlying infrastructure by CSP
4	Backup	i. Entire VM data backup must be available ii. Backup must be taken at least every week iii. Backup of VM must be retained for at least 30 days.
5	Auto scaling	i. Ability to auto scale at least horizontally without bringing the virtual machine down
6	Service Level Agreement	i. i. Virtual Machine Uptime SLA of at least 99.5%
7	Scheduling	i. Scheduling features such as auto start, auto shut-down, etc., without requiring manual intervention
8	Turnaround Time	i. Resource (vCPU, storage, etc.) scaling up and down should be completed within 30 minutes. Alert may be provided.
9	Virtual Machine Administration	i. Basic monitoring tool and dashboard including admin access

5. Technical Evaluation Scheme: -

S.No.	Criteria	Supporting Documents	Marking Parameter
1	The average annual turnover of the Bidder or bidders for last three financial Year.	As per Eligibility Criteria	>= 15 Cr. & < 30 Cr: 10 Marks >= 30 Cr. & < 45 Cr :15 Marks >=45 Cr : 20 Marks
2	Nos of Certifications: 1. ISO 27001	As per Eligibility Criteria	2 marks for each certificate Min- 8 marks Max- 20 marks

	2. ISO 20000 3. ISO 9001 4. ISO 27017 5. ISO 27018 6. ISO 14001 7. ISO 22301 8. Soc 2 Type 2 9. Soc 3 10. Tier III certificate		
3	No. of Cloud Hosting Projects Delivered by Bidder for any central/state Govt./PSU or government body	Document proof of successfully execution	>=3 to <6 Projects: 5 Marks >=6 to <9 Projects: 10 Marks >=9 to >12 Projects: 15 Marks >= 12 Projects: 20 Marks
4	Certification of Proposed Data Center	As per Eligibility Criteria	DC/DR Tier III/Rated 3 – 10 Marks DC Tier IV – 15 Marks
5	Technical Presentation consist 02 parts: A. Summary of cloud services proposed - 10 Marks B. Presentation – 15 Marks a. Demonstration of Self-Monitoring and Management Console/tools b. Display of Data Center Infrastructure c. Backup Policy & Disaster recovery d. Security Firewall Policy for Network e. Make and Model of infrastructure proposed		Min-10 Max-25

(Note: Third party/Tri Party experience will not be considered in evaluation)

6. Major Services

- a. Backup of Database and applications as Miety Guidelines
- b. Inter and Intra Region Data Transfer
- c. Bandwidth-500 Mbps
- d. Log Analysis
- e. Disk Read/Write operations
- f. Static and Dynamic IPs
- g. VPN services
- h. Dash Board for CPCB administrator for Monitoring VMs and reports, Utilisation of resources.
- i. Load Balancing
- j. Web application Firewall(WAF) Services.
- k. Anti-Virus and patch management
- l. Domain URL mapping
- m. Any other service which may be required in future
- n. Deployment of one Technical Support Engineer onsite for VM operational support as per CPCB requirement during the contract period without any extra cost.

7. Penalty Clause

As per given SLA in GeM portal

8. Payment terms & conditions

Payment will be released on quarterly basis as per actual usage of no of virtual machines after satisfactory services.