

Haryana Power Generation Corporation Limited

(A Government of Haryana Undertaking)

Urja Bhawan,
Sector-6, Panchkula
Haryana-134109



**ENGAGING THE SERVICES OF AGENCY
FOR
HOSTING OF SAP ERP ON GOVERNMENT COMMUNITY
CLOUD AT PRIMARY (DC) & SECONDARY (DR) SITE**

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1. DEFINITIONS

For the purpose of this document, the expressions mentioned hereunder shall have the meaning specified against them unless there is anything repugnant in the subject or context:

(a)	‘Owner’ or ‘Employer’ or ‘Purchaser’	Shall mean the Haryana Power Generation Corporation Limited (HPGCL), a Company incorporated under the Companies Act, 1956 having its registered office at Urja Bhawan, C-7, Sector-6, Panchkula, Haryana and its power stations, units and all offices under its control.
(b)	‘Tender’	Shall mean the tender submitted by the tenderer for acceptance by the Owner.
(c)	‘Managing Director’	Shall mean the Managing Director (MD) of HPGCL, or his successors in office as designated by the Owner.
(d)	‘Agency’ or ‘Contractor’ or ‘Bidder’	Shall mean the person or persons, firm or company or consortium with maximum of 2 firms whose tender has been accepted by HPGCL and includes the Contractor’s legal representatives, his successors and permitted assignees.
(e)	‘Sub-contractor’	Shall mean any person or firm or company (other than the contractor) to whom any part of the work has been entrusted by the Contractor, with the written consent of the owner or his representative and the legal representatives, successors and permitted assignee of such person, firm or company.
(f)	‘Contract’	Shall mean the agreement between the Owner and the agency for execution of the contract including therein all documents such as the invitation to Tender, instructions to tenderer, Special Conditions of Contract, Scope of Work, agreed Variations if any etc.

(g)	‘Contract Document’	Shall mean collectively the tender documents, agreed variations, if any and other documents constituting the tender and acceptance thereof.
(h)	‘Site’	Shall mean the locations and places wherever business activities are conducted by the Owner. A list of such locations is provided at clause no. 6.1.
(i)	‘Plant’	Shall mean the Power Generating station of HPGCL.
(j)	‘Offices’	Shall mean Corporate Office and Offices at various Power Generating station of HPGCL
(k)	‘Notice’	Shall mean a notice in written, typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post/speed post/e-mail to the last known private or business address or registered office of the addressee and shall be deemed to have been received in the ordinary course of post/electronic post it would have been delivered.
(l)	‘Appointing Authority’	Shall be the Managing Director or any other person so designated by him for the purpose of arbitration.
(m)	‘Letter of Intent’	Shall mean intimation by a Letter to tenderer that the tender has been accepted in accordance with the provisions contained in the letter.
(n)	‘Days’	Shall mean a calendar day of 24 hours from midnight to midnight irrespective of the number of hours worked in that day.
(o)	Total Value of Contract’	Shall mean the total bid price including all applicable taxes in accordance with the prices accepted in tender as payable to the agency for providing the consulting services

In the event of any doubts arising with respect to the provisions of the rules and inadequacy in the scope of its coverage, the final authority of interpretation shall vest with the MD whose decision shall be final.

2. ABBREVIATIONS

BCP	Business Continuity Plan
COTS	Commercial Off-The-Shelf
CSP	Cloud Service Provider
DC	Data Centre
DRC	Disaster Recovery Centre
EMD	Earnest Money Deposit
ERP	Enterprise Resource Planning
GST	Goods & Service Tax
GCC	Government Community Cloud
HA	High Availability
IPS/IDS	Intrusion Prevention/Detection System
ISO	International Organization for Standardization
LOI/LOA	Letter of Intent / Letter of Award
MIS	Management Information System
MPLS	Multiprotocol Label Switching
NMS	Network Monitoring/Management System
P2P	Point to Point
PBG	Performance Bank Guarantee
RFP	Request for Proposal
RPO	Recovery Point Objective
RTO	Recovery Time Objective
SAN	Storage Area Network
SLA	Service Level Agreement
TCO	Total Cost of Ownership
TCV	Total Contract Value
TDS	Tax Deducted at Source
UAT	User Acceptance Testing

3. INTRODUCTION

Haryana Power Generation Corporation Ltd. came into existence on 14.08.98 after the restructuring of Haryana State Electricity Board into Haryana Power Generation Corporation Ltd. (HPGCL), Haryana Vidyut Prasaran Nigam Ltd. (HVPNL), Uttar Haryana Bijli Vidyut Nigam Ltd.(UHBVNL) & Dakshin Haryana Bijli Vidyut Nigam Ltd. (DHBVNL) under the Reform Programme.

The main objectives of HPGCL are as under: -

1. To generate power from its existing Generating Stations in the most efficient manner on commercial lines and to sell the same to distribution companies.
2. To set up new Power Generation Projects.

HPGCL owns & operates the following power plants in the state:

Sr.No	Name of Power Station	Unit Details	Total Capacity (MW)
i.	Panipat Thermal Power Station.	1x210MW+2x250MW	710 MW
ii.	Deen Bandhu Chhotu Ram Thermal Power Project(DCRTTP), Yamuna Nagar.	2x300 MW	600 MW
iii.	Rajiv Gandhi Thermal Power Project(RGTPP), Khedar, Hisar	2x600 MW	1200 MW
iv.	WYC Hydro Electric Station, Yamuna Nagar	6x8MW+2x7.2MW	62.4 MW
v.	Solar Power Plant at PTPS, Panipat	10 MW	10 MW

3.1. SAP Landscape

HPGCL wishes to leverage the benefit of Cloud to achieve vertical & horizontal scalability to address its growth plan without impacting on performance and without locking to a specific technology, hence it is envisaged to migrate SAP ERP & other applications on Enterprise Government Community Cloud environment. There are four different environments i.e., Development, Quality, Production, Disaster Recovery.

It is envisaged to provide access to all users from HPGCL Thermal & Hydro power plants across Haryana to access SAP from the Primary data center (DC) or from Secondary site (DR) during DR drill or when primary data center is not available to continue uninterrupted services.

4. INSTRUCTION TO BIDDERS

4.1. e-Tendering Process

4.1.1. e-Tendering Portal

Bidders can download tender documents from the portal: <https://etenders.hry.nic.in>. Bidders shall have to pay Tender document fee, e-Service fee and EMD online by using the service of secure electronic payment gateway. The secure electronic payment gateway is an online interface between bidders / contractors and online payment authorization networks. Payment for Tender Document Fee and e-Service Fee can be made by bidders / contractors online directly through Debit Cards / Internet Banking Accounts / any other online mode and payment for EMD can be made online directly through RTGS / NEFT/ any other online mode.

NOTE: If tender is cancelled or recalled on any ground, the tender document fee & e-service fee will not be refunded to the bidders.

4.1.2. Registration of Bidders on e-Procurement Portal

All the bidders intending to participate in the tenders processed online are required to get registered on the centralized e-Procurement Portal i.e. <https://etenders.hry.nic.in>. Please visit the website for more details.

4.1.3. Obtaining a Digital Certificate

- 1) The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.
- 2) The bidders may obtain Class-III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities.
- 3) Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt the data and sign the hash during the stage of bid preparation & hash submission. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online. Hence, the users are advised to keep a backup of the certificate and also keep the copies at safe place under proper security (for its use in case of emergencies).
- 4) In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/power of attorney /lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate

signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.

- 5) In case of any change in the authorization, it shall be the responsibility of management / partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.
- 6) The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

4.1.4. Electronic Payment

Tender document can be downloaded online. Bidders are required to pay the tender documents fees online using the electronic payments gateway service. For online payments guidelines, please refer to the Home page of the e-tendering Portal <https://etenders.hry.nic.in>.

4.1.5. Pre-requisites for online bidding

In order to bid online on the portal <https://etenders.hry.nic.in>, the user machine must be installed with Java as per requirement of e-tendering Portal.

4.1.6. Online Viewing of Detailed Notice Inviting Tenders

The bidders can view the detailed NIT and the time schedule (Key Dates) for all the tenders floated through the single portal e-Procurement system on the Home Page at <https://etenders.hry.nic.in>.

4.1.7. Key Dates

The bidders are strictly advised to follow dates and times as indicated in the Bid Data Sheet. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

4.1.8. Mode of Payment for submission of tender

- 1) The online payment for Tender document fee, eService Fee & EMD can be done using the secure electronic payment gateway. The Payment for Tender Document Fee and eService Fee can be made by eligible bidders/ contractors

online. The transaction reference no. will be intimated to HPGCL along with supported documents.

- 2) The secure electronic payments gateway is an online interface between contractors and online payment authorization networks.
- 3) Please visit HPGCL website www.hpgcl.org.in and <https://etenders.hry.nic.in> for NIT details.
- 4) Bidders are instructed to submit their bids online only on Haryana e-portal website (<https://etenders.hry.nic.in>).
- 5) Unless exempted specifically, tenders not accompanied with the prescribed EMD/Cost of Tender shall be rejected. EMD/Cost of Tender shall be in the prescribed mode of payment as asked in the NIT, otherwise the tender shall be liable to be rejected.
- 6) Tender received through Telefax / email or in physical form shall not be considered.
- 7) In case, date specified for opening of tender, happens to be a public holiday, then next working day shall be considered automatically for the same.
- 8) All the costs and expenses incidental to the preparation of tender, discussions, conferences, if any, shall be borne by the tenderers and HPGCL shall bear no liability whatsoever on such costs and expenses.

4.2. Date of Validity

The validity of tender shall be 120 days from the date of opening of Part-II 'Price Bid'. It is the responsibility of the Bidders to ensure that Bids are delivered in accordance with the instructions set out in the NIT and its accompanying documents.

4.3. Preparation of Bids

4.3.1. Language of Bid

- 1) The Bid, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and the Purchaser, shall be written in the English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.

4.3.2. Documents comprising the Bid

- 1) The Bid shall comprise following details:
 - a) (i) Earnest Money Deposit and (ii) Proof of Purchasing Tender document and e-Service Fee as per BDS (Bid Data Sheet).
 - b) Relevant documents related to "Technical Proposal"
 - c) Relevant formats / details related to "Price Proposal"

4.3.3. **Earnest Money Deposit (EMD) and Security Deposit**

- 1) The Bidders shall have to pay for EMD Fees online through e-Tendering portal. The bidder shall also be required to pay for Tender documents Fee & e-Service Fee online by using the service of secure electronic payment gateway as per details mentioned in the BDS.
- 2) The EMD of the unsuccessful bidder will be returned without any interest within 30 days after award of contract to successful bidder. The Earnest Money Deposit of the successful bidder shall be converted into the security deposit till readiness of DC & DR.

Security Deposit:

An amount equivalent to 10% of the Quarterly running bills shall be deducted and kept as security deposit.

Release of Security deposit:

- 3) The EMD of the successful bidder on whom the work order is placed shall be released 30 days after handover of DC & DR infrastructure.
- 4) The Security Deposit deducted as the 10% amount shall be released 30 days after completion of the contract period of 5 years.
- 5) No interest shall be paid on EMD/ Security Deposit for the period it remains deposited with HPGCL.
- 6) The earnest money /security deposit shall be forfeited in part or in full under the following circumstances:
 - a. If the tenderer withdraws his tender at any stage during the currency of his validity period.
 - b. If the order has been issued but the tenderer refuses to comply with it.
 - c. Where the order has been complied with but the supplier stops making the supplies/commissioning after partially fulfilling the order.
 - d. In the event of breach of a contract in any manner.
 - e. In the case of evidence of cartel formation by the bidder(s).
 - f. In case the bidder has submitted or submits false / forged information or documents.

4.3.4. **Price Schedules**

- 1) The Bidders should take note of following points while submitting the Price Proposal:
 - a) Price Proposal should clearly indicate the price to be charged without any qualifications whatsoever and should include all taxes, duties as may be applicable, to be paid pre- or post-delivery or to be deducted by the purchaser at source, in relation to the Goods and Related Services.
 - b) If price for any Good, Component or Services as required in the Price Proposal is not quoted, it will be considered as included in the price proposal. No addition or modification to the quoted price will be allowed.
- 2) All items in the Schedule of Supply must be listed and priced separately in the Price Schedules. If an item listed in Price Schedule is not priced, the bidder shall notify specifically that the price of said item is included in the prices of other items and also specifying their Sr.No.
- 3) Prices quoted by the Bidder must be firm and final and shall remain constant

throughout the period of the contract and shall not be subject to any upward revision.

4.3.5. Currency of Bid

- 1) Bidders may express their bid price in Indian Rupees only.

4.4. Submission of Bids

- 1) Bids shall be of two parts: (a) Technical Bid, and (b) Financial Bid
- 2) The bidders shall upload their technical offer containing documents, qualifying criteria, technical specification, schedule of deliveries, and all other terms and conditions except the rates (price bid).
- 3) The bidders shall quote the prices in price bid format only.
- 4) Submission of bids will be preceded by submission of the digitally signed & sealed bid (Hash) as stated in the time schedule (Key Dates) of the Tender.
 - a. If bidder fails to complete the Online Bid Submission stage on the stipulated date and time, His/hers bid will be considered as bid not submitted, and hence not appear during tender opening stage.
 - b. Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://etenders.hry.nic.in>
 - c. For help manual please refer to the 'Home Page' of the e-Procurement website at <https://etenders.hry.nic.in>.
- 5) HPGCL reserves the right to select or reject any party without assigning any reason whatsoever.

4.4.1. Technical Bids

- 1) The Bidder is expected to examine all terms and conditions included in the Document. Failure to provide the requested information will be at his risk and may result in rejection of the Bid.
- 2) Technical Bid must provide the information, using, but not limited to, the formats attached as annexure in bid.
- 3) Technical Bids needs to include Bidder's understanding of the processes, the proposed solution including an elaboration of how the required tasks are proposed to be undertaken
- 4) TECHNICAL BID MUST NOT INCLUDE ANY FINANCIAL INFORMATION. IF FOUND SO THE BIDDER WILL BE DISQUALIFIED.

4.4.2. Financial Bids

The financial Bid must take into account the tax liability & cost of insurances if any and any other statutory pay-outs as per the standard guidelines

4.4.3. Late Bids

The Purchaser shall not consider any Bid that arrives after the deadline for submission of Bids. Any Bid received by the Purchaser after the deadline for

submission of Bids shall be declared late; rejected, and returned unopened to the Bidder

4.4.4. Withdrawal, Substitution and modification of bids

A Bidder may not withdraw, substitute, or modify its Bid after due date of bid submission.

4.5. Evaluation and Comparison of Bids

4.5.1. Responsiveness of Technical Proposal

- 1) The Purchaser's determination of the responsiveness of a Technical Proposal will be based on the contents of the Technical Proposal itself.
- 2) A substantially responsive Technical Proposal is one that conforms to all the terms, conditions, and specifications of the Bidding Document including all required forms, documents, compliances as defined in the bid document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
 - a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
 - b) limits or is inconsistent in any substantial way, with the Bidding Document, the Purchaser's rights or the Bidder's obligations under the Contract; or
 - c) if rectified would unfairly affect the competitive position of other Bidders presenting substantially responsive Technical Proposals.
- 3) If a Technical Proposal is not substantially responsive to the Bidding Document, it shall be rejected by the Purchaser and shall not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.

4.5.2. Non-conformities, Errors, and Omissions

- 1) Provided that a Technical Proposal is substantially responsive, the Purchaser may waive any nonconformity or omission in the Bid that does not constitute a material deviation.
- 2) Provided that a Technical Proposal is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify non-material non-conformities or omissions in the Technical Proposal related to documentation requirements. Such omission shall not be related to any aspect of the Price Proposal of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 3) Provided that the Technical Proposal is substantially responsive, the Purchaser will correct arithmetical errors during evaluation of Price Proposals on the following basis:
 - a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the

Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;

- b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected;
 - c) if there is a discrepancy between words and figures, the amount in words shall prevail. However, where the amount expressed in words is related to an arithmetic error, the amount in figures shall prevail subject to (a) and (b) above;
 - d) if there is a discrepancy between percentage and figures related to various taxes or levies, the percentage shall prevail over figure mentioned. However, where the amount expressed in percentage is related to an arithmetic error, the amount in figures shall prevail subject to (a) and (b) above. It should also be noted that at time of payment against, the prevailing tax/levy rates will be used as on the date of approval of payment.
- 4) Except as provided in sub-Clauses (a) to (d) herein above, the Purchaser shall reject the Price Proposal if the same contains any other computational or arithmetic discrepancy or error.
- 5) If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Earnest Money Deposit shall be forfeited.

4.5.3. Examination of Terms & Conditions

- 1) The Purchaser shall examine the Bids to confirm that all terms and conditions specified in the GCC (General Terms & Condition of Contract) and the SCC (Special Terms & Condition of Contract) have been accepted by the Bidder without any material deviation or reservation.
- 2) The Purchaser shall evaluate the technical aspects of the submitted Bid to confirm that all requirements specified in the Section 7: Scope of Work, of the Bidding Document have been met without any material deviation or reservation.
- 3) If, after the examination of the terms and conditions, the Purchaser determines that the Technical Proposal is not substantially responsive in accordance with Clause 4.5.1, it shall reject the Bid.
- 4) The Purchaser reserves the right to verify the credentials (including documents, declarations, self-certifications etc.) provided by the Bidders by its own means and methods. In case Purchaser receives feedback contrary to the responses of the Bidder or is not satisfied with compatibility of the experience with the required standards / expectations, Purchaser reserves the right to form its own opinion and even reject the bids.

4.5.4. Deviations

Deviations, if taken by the bidder(s) on the specifications, terms & conditions of the tender documents will not be acceptable. No deviations certificate should be attached by bidder as per **Annexure-6**.

4.5.5. Evaluation of Price Bids

- 1) The Purchaser shall evaluate Price Proposals of each Bid for which the Technical Proposal has been determined to be substantially responsive.
- 2) To evaluate a Technical Proposal, the Purchaser shall only use all the criteria and methodologies defined in NIT and any other approach specified in the bid document.
- 3) To evaluate a Price Proposal, the Purchaser shall consider the Bid Price quoted in Price Proposal Submission Sheet i.e. inclusive of all duties, levies and taxes.

4.5.6. Comparison of Bids

- 1) Total Cost of Ownership (TCO) will be calculated based on response provided in the price proposal. Price Bid evaluation will be done on total prices all-inclusive of taxes, duties and levies.
- 2) The TCO of the Bidder will be calculated on the basis of Grand Total Cost defined in Section-10 Schedule of requirement & Price bid schedule.
- 3) The Bid having the Lowest TCO shall be termed as the Lowest Evaluated Bidder.

4.6. Purchaser's Right accept or reject any or all bids

The Purchaser reserves the right to accept or reject any or all Bid or annul the bidding process and reject any or all Bids at any time prior to Contract award without assigning any reasons and without thereby incurring any liability to the Bidders.

4.7. Award of Contract

4.7.1. Award Criteria

- 1) The final bidder will be selected on the basis of lowest price quoted under final schedule of requirement and price bid schedule i.e. Section-10 and contract will be awarded to the lowest bidder.

2) Negotiations:-

Negotiations, if required would be held by competent authority of HPGCL with reference to Haryana Govt. O/o order No 14/26/2023-6FA dated 10.05.2023.

a) Price negotiation could be held up to four number of such bidder (s), in addition to L1- bidder in cases where there are bidders falling within 5% of the L-1 bidder. In cases where the L-1 bidder refuses to further reduce his offered price and any of the four bidders come forward to offer a price which is better than the price offered by L-1 bidder, the bidder whose price is accepted becomes the L-1 bidder. However, in such a situation, the original L1 bidder may be given one more opportunity to improve upon the discovered price. In case, the original L1 bidder further improves upon the

price discovered during the negotiations, he would be treated as the L1 bidder.

- b) In cases where there is no bidder within 5% of the L-1 bidder,
 - i) L-2 bidder will be invariably called for negotiation in addition to the L-1 bidder and
 - ii) L-3 bidder will also be called, if it is so decided by the competent authority, in addition to L-1, L-2 bidders.

4.7.2. Provision of Extension Order

The Purchaser reserves the right to place an extension order for maximum of 10% of total contract value regarding goods and services on same rate, terms & conditions within the total contract period including mandatory & optional services.

4.7.3. Letter of Award

- 1) Prior to the expiration of the period of bid validity, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted and will issue the Letter of Award (LoA)
- 2) Until a formal contract is prepared and executed, the notification of award or LoA shall constitute a binding contract.

4.7.4. Contract Agreement

The firm shall execute a contract agreement with HPGCL on a Non Judicial Stamp Paper of appropriate value within 07 days of receipt of work order.

4.7.5. Period of Contract

The contract period shall be effective from the date of start of work and including 5 years Operations & Maintenance (O&M) commencing from successful handover of DC& DR infrastructure as per **Annexure A.3**.

4.7.6. Performance bank Guarantee

Within thirty (30) days of the receipt of work order from the purchaser, the successful bidder shall furnish the performance bank guarantee of the nationalized bank.

4.7.7. Note

- 1) If bidder fails to complete the Online Bid Submission stage on the stipulated date and time, his/her bid will be considered as bid not submitted, and hence will not appear during tender opening stage.
- 2) Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online tenders at the portal <https://etenders.hry.nic.in>. For help manual please refer to the 'Home Page' of the e-Procurement website at <https://etenders.hry.nic.in> and click on the available link 'Information about DSC'.

- 3) For help manual please refer to the 'Home Page' of the e-Procurement website at <https://etenders.hry.nic.in> and click on the available link 'Help to Contractor'.
- 4) For any technical related queries please call at 24 x 7 Help Desk Number given on the 'Home Page' of the e-Procurement website at <https://etenders.hry.nic.in> and click on the available link 'Contact Us'.
- 5) These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

5. Bid Data Sheet

5.1. Bidding Document
For clarification purposes only, the Purchaser's address is: Office of the O/o XEN/IT& ERP O/o CE/ERP Haryana Power Generation Company Limited, Urja Bhawan, C-7, Sector-6, Panchkula, Haryana, India Phone/Fax: 91-172-5022416 Email: it@hpgcl.org.in
5.2. Preparation of Bids
The language of the Bid is: English
a) The e-Service fee shall be required, and the amount required to be furnished is Rs. 1180/- b) The Tender Document Fee shall be required, and the amount required to be furnished is Rs. 5,000/- (Rupees Five Thousand only). c) The Earnest Money Deposit amounting to Rs. 10 Lakh (Rupees Ten Lakh only) shall be required to be furnished online as per Clause No. 4.1 & 4.3.3.
The Pre-Bid meeting shall be held on: Date: 12.08.2026 Time: 11:00 hrs (IST) Venue: Haryana Power Generation Corporation Limited, Urja Bhawan, C-7, Sector-6, Panchkula. Bidders should note the following for bid related queries/clarifications: 1. All queries / clarifications related to the bid document need to be emailed by 10.08.2026 (15:00 Hrs.) 2. All queries /clarifications needs to be sent at it@hpgcl.org.in. No other email ID or mode of submission will be allowed. 3. Bidders needs to clearly mention (i) Page No., (ii) Clause No. and (iii) Query/Clarification required Bidders need to email MS Excel along with the PDF version of queries/clarifications. 4. The queries received after due date of submission, will not be considered. NOTE: Wherever reference to "Time" has been made, the same shall be taken as Indian Standard Time.
Bid Submission end date and time: Date: 26.08.2026 Time: 11:00 hrs (IST)
The Technical bid opening shall take place online as per following schedule: Date: 27.08.2026 Time: 15:00 hrs (IST)

6. Qualifying Criteria

The Firm intending to bid should fulfill the following eligibility criteria (**satisfactory evidence to be provided by the firm**):

1. The tender is open to all firms/companies from within India, who are eligible to do business under relevant Indian laws as in force at the time of bidding.
2. Firm/company declared by GoI, GoH to be ineligible to participate for corrupt, fraudulent or any other unethical business practices shall not be eligible during the period for which such ineligibility is declared.
3. Only Ministry of Electronics and Information Technology (MeitY) empanelled cloud service providers (CSP) offering Government Community Cloud are eligible to bid. All the IT infrastructure setup of the purchaser should be installed in MeitY empanelled DC & DRC.
4. The DC & DR site should be from the same CSP and should be in a different seismic zone within the country.
5. Essential requirements –

SN	Criteria	Description	Document Proof
1	Registration Status	The bidder should be an established Information Technology company registered under the Companies Act, 1956	Valid Certificate Copy need to be provide
2	Turnover	The bidder should have Minimum Average Annual Turnover of INR 2.05 Crore of last three financial years (i.e. year 2022-23, year 2023-24 & year 2024-25).	Copy of proof of the audited balance sheets along with profit & loss account during last 3 financial years (FY 2022-23, 2023-24 and 2024 -25)
3	Net worth	Bidder should have positive net worth for three last year (FY 2022-23, 2023-24 and 2024 -25)	Copy of Audited Annual Report for financial years 2022-23, 2023-24 and 2024 -25 along with a certificate from Chartered Accountant mentioning year wise net worth.
4	Experience	The bidder should have carried out 'Similar Works' i.e. providing hosting/managed services for Data center-Data recovery center for enterprise customers during last five years reckoned from last day of the month previous to the month of NIT: One 'Similar Work' costing not less than 8.20 Crore OR Two 'Similar Works' costing not less than 5.12 Crore each OR Three 'Similar Works' costing not less than 4.10 Crore each.	Purchase Orders /Work Orders / Contract Agreement indicating contract value and successful service Certificate from the Client(s) including ongoing assignments.

5	Empanelment	The bidder should be empanelled with Ministry of Electronics and Information Technology (Meity), Govt. of India offering Government Community Cloud and STQC audited Cloud Service Provider (CSP) valid as on last date of bid submission.	• Certificate of empanelment with Ministry of Electronics and Information Technology, GoI. • STQC audit compliance certificate.
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7. Scope of Work

HPGCL is currently operating its SAP ERP system (ECC 6.0) across its all power plants in Haryana and its corporate office at Panchkula for core business processes and HPGCL have hosted its SAP ERP on Government Community Cloud at primary Data Centre & secondary Disaster Recovery Centre site. HPGCL intends to renew/migrate its SAP ERP system on a Government Community Cloud (GCC) with a Primary Data Centre and a geographically separate Disaster Recovery Centre.

The purpose of RFP is to solicit proposals from qualified bidders for Operation & Maintenance (O&M) services of SAP ERP applications in an Uptime certified TIER III data Centre and Disaster Recovery Centre.

The scope of the project includes end-to-end migration of existing SAP ERP system, Hosting, monitoring, security, backup, DR operations, and support services of SAP ERP system on Government Community Cloud (GCC) with Primary Data Centre (DC) and Geographically Separate Disaster Recovery Centre (DR) as per the SAP landscape given in **Annexure-A.5**. The scope includes, but is not limited to, the following:

The tasks associated with this project are broadly classified into five categories namely

1. Assessment & Planning- DC & DR
2. Designing & Implementation of hosting plan – DC & DR
3. Project management – DC & DR
4. Provisioning of SAP on Government Community Cloud – DC & DR
5. SAP ECC Installation & Migration – DC & DR
6. DR setup on Government Community Cloud with replication between DC & DR
7. Post implementation support (Government Community Cloud)– DC & DR

Bidder needs to submit details like Architecture diagram, VM sizing, Security solution; Storage sizing with IOPs delivered, Project Plan, Approach & Methodology for deployment on Government Community Cloud on Data Center & Disaster Recovery Site and Post implementation support methodology for 5 years.

7.1. Assessment & Planning

1. Study and assessment of existing SAP ERP system (ECC 6.0) landscape, including application servers, database, storage, interfaces, custom developments, batch jobs, and security setup.
2. Assessment of current data volume, growth trends, and performance baselines.
3. Preparation of detailed migration plan, cutover strategy, rollback plan, and project schedule.

4. Identification of risks, dependencies, and prerequisites for migration.

7.2. Designing & Implementation

As part of designing and implementation methodology, bidder needs to submit the details of

1. Design of SAP-certified cloud architecture at Primary Data Centre (DC) and Disaster Recovery Centre (DRC)
2. Storage and backup architecture aligned with SAP best practices
3. High Availability solution at different level from Network, Physical nodes, VM's & Storage, having no single point of failure.
4. Proposed Solution should be compatible with IPv6 and High level architectural diagram showing different layers of solution like Network, Security, Compute, Hardware, Storage & Backup layers.
5. Proposed solution should have IP schema depicted at high level with natting to secure the applications directly getting exposed to Internet. Bidder should propose to deploy different applications and database in different VLANs with restricting users to directly access database layer and storage layer.
6. Backup solution with different features, like snapshots of VM's, online RDBMS backup (Standalone and Clustered), File system backups incremental and full back up of all data, restoration of data in test environment or as and when required.
7. Compliance sheet for the features mentioned in the following section for Cloud specifications.
8. DR solution and replication methodology.
9. All product i.e. hardware and software should be deployed and used should be as per the Meity and SAP guidelines. HPGCL reserve right to do the Physical audit of provided infrastructure and CSP is bound to disclose details of hardware and software.

7.3. Project Management

Selected Bidder will be required to perform the following project management tasks for the assigned areas:

1. Provide a detailed work plan for different stages mentioned above.
2. Provide test plan for testing the new setup at data center.
3. Provide detailed work plan for implementing DR site and configure replication between DC and DR to meet the defined RTO and RPO.
4. Provide BCP planning approach and methodology.

5. Provide setup specific training for the project team and assist in management of project progress.
6. Provide the complete technical documentations.
7. Vendor coordination for HPGCL sites accessibility to DC and DR with HPGCL.

7.4. Provisioning of Government Community Cloud

Cloud service provider to setup complete SAP environment to host SAP ERP at DC (Production, Quality & Development) on Government Community Cloud & DR site. Bidder will be required to perform the following minimum technical tasks for the assigned areas:

- a. Setup Meity empanelled and STQC audit Government Community Cloud with VM's designated for individual SAP modules (DEV/TEST/PROD) with entire production environment in high availability mode. **Annexure- A.5** indicates high availability remarks including Guest VM OS clusters.
- b. Individual VM's running respective SAP ERP instance should deliver the given SAPs as per Annexure-A.5.
- c. High Availability to be configured for Production environment by bidder including Guest VM OS cluster and integration of SAP Services in OS Cluster. Bidder to ensure High available nodes should not run on same physical host.
- d. Different VLAN's to be created to segregate front ending servers and database servers.
- e. Storage proposed for DC & DR should support IOPs as required.
- f. VM's provisioned should have feature of multi-dimensional auto-scalability of resources like vCPU& RAM without requiring any manual intervention or to reboot the VM, in case there is sudden traffic on the server or if the number of users increase then the VM should detect the incoming traffic and accordingly should scale the resources.
- g. The cloud service provider should support HPGCL in migrating the data from its existing DC & DR to proposed one. Procedures and documentation to be developed for migration of applications, data & content. Hence, necessary connectivity needs to be provided by the bidder till the time of data migration.
- h. The entire scope of work pertaining to end-to-end migration of SAP ECC 6.0 ERP system, including SAP applications, databases, and all associated infrastructure components, shall be the sole responsibility of the shortlisted Cloud Service Provider (CSP). The CSP shall ensure seamless migration with

minimal downtime, complete data integrity, and no disruption to existing business operations.

- i. Bidder should propose and deploy firewall, load balancer, Antivirus, hardening operating system & associated security solution to protect the VM's, Application, Database from any type of external attacks like Virus attack, DDOS attack, hacking attempt, etc.
- j. Detailed Cloud specifications and features are given in further section.
- k. Provisioning of SAP-certified compute, storage, and network resources on Government Community Cloud.
- l. Installation and configuration of SAP-supported Operating System (RHEL / SUSE)
- m. Configuration of required file systems, swap, kernel parameters, and time synchronization
- n. Setup of monitoring and management tools.

7.5. SAP ECC Installation & Migration

- a. Installation of SAP ECC .
- b. Migration of SAP database and application using SAP-recommended tools.
- c. Migration of custom developments, profiles, RFCs, logical systems, printers, and background jobs
- d. Reconfiguration of interfaces with third-party systems, printers, email, batch jobs, etc.

7.6. DR setup on Government Community Cloud with replication between DC & DR

1. Provisioning of DRC infrastructure at a geographically separate location.
2. Configuration of database replication (real-time or near-real-time) between DC and DR
3. Setting up of DR site after SAP ERP is LIVE from primary data center (DC) Government Community Cloud solution. Bidder will be required to perform the following technical tasks for the assigned area:
 - a. Setup Meity empanelled and STQC audit Government Community Cloud to host SAP ERP at DR location.
 - b. Proposed Government Community Cloud solution should have feature of multi-dimensional scaling of resources like vCPU & RAM automatically without requiring to reboot the VM, in case there is sudden traffic on the VM

or if the number of users increase then the VM should detect the incoming traffic and accordingly should scale the resources.

- c. The cloud platform should support scalability feature to handle load during normal & peak period. That is when users are accessing applications from DC, there will be no users accessing the applications from DR and so the only process on the servers at DR site would be of data replication, so the VM's to be proposed on Govt Community Cloud at DR site during normal scenario should be working at minimum resources say for e.g at 20% or 30% and should scale resources like vCPU & RAM when the load increases on VM's in DR site like during DR drills or when DR is LIVE. Once the DR drill is complete or primary DC is LIVE again, the VM itself should be able to scale down and continue to operate at minimum resources.
- d. Setup replication between DC & DR.
- e. Provide complete DR solution, data replication plan and IT-BCP planning report.
- f. Approach on how Bidder will meet the given RTO & RPO.
- g. Propose replication monitoring tool to configure DR to be invoked with a single click.
- h. Generate reports to ensure RTO & RPO are met as per the set timelines.
- i. Bidder has to decide for DR Automation tool or Disaster Recovery Management tool in order to match required RPO/RTO as per RFP.
- j. Proposed DR solution and Data replication methodology should be a proven solution for SAP applications.

7.7. Post implementation support

Following maintenance support is required to be provided by the shortlisted bidder.

- a) Complete monitoring and maintenance of DC & DR infrastructure, Cloud infrastructure, network, security, storage & backup, etc.
- b) Maintenance of Infrastructure Configuration Changes in the already implemented Modules.
- c) Provide 24x7, 365 days support for the entire solution including but not limited to proposed Cloud, storage, network, security and Backup solution proposed.
- d) Propose support and helpdesk system to allow HPGCL users to call or log issues via phone, ticket and online chat (24x7).

- e) Number of Phone calls, chats and tickets should be unlimited.
- f) Bidder to create and maintain all the necessary technical documentation, design documents, standard operating procedures, and configurations required to continued operations and maintenance of cloud services.
- g) Redundant Internet bandwidth along with security should be provided for smooth access of SAP applications with 99.5% uptime.
- h) Following broad areas of services under this project:

7.7.1. Server Administration & Management

The Bidder is expected to provide the Server Administration & Management services as follows-

- i. Bidder shall provide the "Server Administration service" to keep servers stable, reliable and their operation efficient.
- ii. 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.
- iii. Setting up and configuring servers and applications as per configuration documents/ guidelines provided by HPGCL.
- iv. Installation/ re-installation of the server operating systems and operating system utilities.
- v. OS Administration including troubleshooting, hardening, patch/ upgrades deployment, BIOS & firmware upgrade as and when required/ necessary for Windows, Linux or any other O.S proposed as part of this solution whether mentioned in the RFP or any new deployment in future.
- vi. Ensure proper configuration of server parameters, operating systems administration, hardening and tuning.
- vii. Regular backup of servers as per the backup & restoration policies stated by HPGCL from time to time.
- viii. Regularly monitor and maintain a log of the status of critical services, performance of servers including but not limited to monitoring of CPU, disk space, memory utilization, I/O utilization, etc.
- ix. Regular analysis of events and logs and maintain the reports for future audit purposes.
- x. Managing uptime of servers as per SLAs.

- xi. Take appropriate steps to comply with the audit observations made by various internal/ external auditors.
- xii. Depending on the nature of applications deployed, Bidder shall suggest/ implement appropriate security measures on various servers, especially the Web, Application and Database servers.
- xiii. Co-ordinate with SSL Certificate vendor for issuing and deployment of SSL certificates.
- xiv. Preparation/ updating of the new and existing Standard Operating Procedure (SOP) documents on servers & applications deployment and hardening.

7.7.2. Storage Administration and Management

- i. Installation and configuration of the storage disk to VMs at Data Centre and DR Site.
- ii. Management and monitoring of storage environment to maintain performance at desired optimum levels.
- iii. Preparation of Standard Operating Procedure (SOP) document for the Storage and SAN Administration
- iv. Configuration and provisioning of storage whenever a new application is hosted in the Data Centre and at DR Site. This shall include activities such as management of storage space, volume, RAID configuration, LUN, zone, security, business continuity volumes, NAS, performance, etc.
- v. Bidder shall provide L1, L2, L3 & subject matter expert level of support for any issues related to proposed storage infrastructure to HPGCL at primary Data Centre and DR site. Bidder will coordinate with HPGCL and ERP implementation vendor to resolve any storage / IOPS performance related issues as per SLA.
- vi. Compliance to IT Security policies of HPGCL/ Statutory bodies.
- vii. Adherence and maintenance of the user access controls as advised by HPGCL.

7.7.3. Network & Security Management Services

- a) Cloud service provider will have to provide complete managed services for all networking components proposed as part of the solution like, vSwitches, routers, vFirewall, load balancers and links.
- b) Configure, manage & modify configuration of the network devices / vFirewall etc. policies as and when required.

7.7.3.1. Monitoring & Fault Management

- Monitoring & management of Links (Internet, P2P, and IPsec VPN
- Tunnels) etc. proposed as part of this solution
- Bandwidth utilization, latency, packet loss etc.
- Call logging and co-ordination with Internet Service Providers, Point-to-point line vendors for restoration of links, if need arises.

7.7.3.2. Configuration Management

- Creation of VLAN creation / hardening / routing /load sharing etc.
- Maintaining / Updating of Network diagram.
- Maintaining complete details of network hardware along with interfaces, IP address etc.
- Redesigning of network architecture as and when required by HPGCL.

7.7.3.3. Security Management Services

- 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.
- Maintaining an updated knowledge base of all the published security vulnerabilities and virus threats. During the duration of the contract any security threats like Malware Spyware Ransomware it will be bidder responsibility to protect the environment from the threats.
- Ensuring that patches / workarounds for identified vulnerabilities are patched / blocked immediately.
- Ensure a well-designed access management process, ensuring security of physical and digital assets, data and network security, backup and recovery etc.
- Quarterly (or as required by HPGCL) review of domain level rights and privileges; Modifying access permissions of existing security policies on existing firewall.
- Adding/ Changing network address translation rules of existing security policies on the firewall.
- Diagnosis and resolving problems related to firewall, IDS /IPS.
- Managing configuration and security of Demilitarized Zone (DMZ) Alert /

advise HPGCL about any possible attack / hacking of services, unauthorized access / attempt by internal or external persons etc.

- Implementation of IT security policies as advised by HPGCL/ Statutory bodies.
- Resolution and restoration of services in case of any possible attack and necessary disaster management.
- Shutdown of critical services to prevent attack (internal or external) in coordination with HPGCL.
- Cloud service provider to ensure adherence to MeitY Guidelines for security and ensure any updates/changes in guidelines are adhered for the entire contract period.
- IPv6 configuration.

7.7.3.4. Internet & Web Security Administration

- Coordination with ISPs for installation / configuration of links.
- Monitoring of Internet links and co-ordination with ISPs for restoration of failed link(s).
- Monitoring bandwidth utilization.
- Carrying out configuration changes on router as per the HPGCL requirements.
- To ensure working of all the HPGCL's URLs and Internet applications from outside HPGCL's Intranet.
- Backup /restoration/synchronization of configuration files of devices.
- Maintaining static NAT table of ISPs.
- Installation/configuration/management/up gradation of the devices / appliances.
- Public IP management and DNS management
- DNS redirection during DR Drill

7.7.3.5. Antivirus (AV) Management

AV management service includes virus detection, eradication, and synchronization across devices and support for required security classifications. The scope of services is applicable to all the nodes, all current and future versions of the Antivirus S/W:

- Support for virus control and loading of antivirus patches/ signatures as and when available.

- Installation/ up gradation/ support of Antivirus software clients.
- Ensure all the servers updated with the latest virus definition.
- Problem analysis and its resolution related to Antivirus software.
- Periodic review and reporting of logs and corrective action.
- Diagnose and rectify any virus/worm problems, which can be fixed by the anti-virus tool.
- Provide feedback to HPGCL on any new viruses detected or possible virus attack and take up promptly with OEM/ Support vendor for getting the appropriate patch and carry out the timely maintenance.
- Guide/suggest HPGCL on the effectiveness of anti-virus management and alternate remedial action, if any.

7.7.4. Backup/Restore Management for Servers, Database, Applications etc.

- To perform backup and restore management in coordination with HPGCL's policy & procedures for backup and restore, including performance of daily, weekly, monthly, quarterly and annual backup functions (full volume and incremental) for data and software maintained on the servers and storage systems using Enterprise Backup Solution.
- Backup and restoration of Operating System, application, databases and file system etc. in accordance with defined process / procedure / policy.
- Define backup architecture and mechanism (SAN/LAN/Object Storage) to meet HPGCL's requirement
- Monitoring and enhancement of the performance of scheduled backups, schedule regular testing of backups and ensure adherence to related retention policies.
- Ensuring prompt execution of on-demand backups & restoration of volumes, files and database applications whenever required.
- 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.
- Media management including, but not limited to, tagging, cross-referencing, storing (both on-site and off-site), logging, testing, and vaulting in fire proof cabinets.
- Installation, re-installation, upgrade and patch deployment of the Operating System in the event of hardware/ Software failure, OS issues, release of new

version or patches by the OEM etc.

- Generating and sharing backup reports periodically.
- Coordinating to retrieve off-site media in the event of any disaster recovery.
- The CSP would be the owner of Backup media and HPGCL will not provide any media for Backup.
- Periodic Restoration Testing of the Backup.
- Maintenance log of backup/ restoration.
- Update/ Maintain Standard Operating Procedure (SOP) documents.

7.7.5. BCP Planning and Disaster Management

In view of providing continuous availability of the SAP applications along with complete managed services and disaster recovery services in case of disaster at primary site, HPGCL wishes to setup DR setup on to Cloud. Compute and Storage of only Production landscape (without HA) of DC to be considered at DR. The said DR infrastructure is envisaged to enable HPGCL to deliver services quickly and effectively to its stakeholders while improving productivity and enhancing performance even in case of disaster. Bidder should provide and own solution to perform DR drill for full and selected applications every six months without any data loss at DC or DR.

HPGCL wishes to leverage the benefit of Cloud by keeping the VM's in DR site running at minimum resources at 20% to 30% as that of DC compute resources during normal scenario, that is when applications are LIVE from primary site and cloud solution should facilitate to auto scale the resources to 100% capacity as that of DC compute as soon as disaster is announced and users are transferred to DR site. And when the primary site is restored and ready to resume normal operations, VM's at DR site should again release the additional resources consumed and continue working at normal resource utilization that at 20% to 30% as that of DC compute resources.

7.7.6. Government Community Cloud Deployment at DR site and BCP planning:

Detailed planning of Government Community Cloud deployment and configuration should be submitted to HPGCL. The configuration planning should include following details.

- a. Network architecture planning
- b. Firewall configuration planning.

- c. VLAN configuration planning.
- d. IP address planning.
- e. Subnet planning and routing planning.
- f. Backup methodology.
- g. Failover Mechanism for replication links.

7.7.7. System export planning

Once infrastructure at DR is ready, the bidder should prepare detailed plan of system exports of SAP to setup SAP environment at DR site. This planning would require following details

- a. On line and full off-line backup of existing system.
- b. Notification of downtime to end users.
- c. System export window
- d. Replication tool configuration
- e. Transfer time of data from DC to DR
- f. Data restoration at DR side.
- g. Data Sync times and dependencies if any
- h. Switching on DR servers
- i. Notifying end users.
- j. Coordination with other vendors

7.7.8. Testing Planning

Once Government Community Cloud is deployed, data is exported, imported in DR servers, the testing of application at DR site becomes very important. Therefore, the bidder has to perform following testing:

7.7.8.1. Infrastructure testing

The bidder should perform various testing on Infrastructure provided at DR site. This should include following thing:

- a. Disk IO testing.
- b. Network throughput testing
- c. CPU and RAM benchmarking testing
- d. Read/Write latency testing.
- e. Dry Run of DR drill

This should also include following not limited to:

Inclusion of “Backup/Restore, Virtualization, Cloud provisioning, Replication

and Reverse Replication etc.

7.7.8.2. Functional Testing

Once data is replicated to DR site and application started functioning, the functional testing of Application will be done by HPGCL Team along with Application vendors. The bidder requires to provide support and co-ordination in this case. HPGCL and application vendors may perform following testing.

- a. Software Module testing as per functional requirement.
- b. User authentications testing.
- c. Users add/delete, reports generations
- d. Heavy application transactions on DR servers.
- e. Backup exports
- f. Backup restoration and so on

7.7.8.3. Data Integrity Testing

Data integrity will be very important and crucial factor in overall process. Data integrity testing will be performed by HPGCL IT staff and application vendors which would include:

- a. Amount of data verification at both end.
- b. Table size and records testing.
- c. User's status at both end.
- d. Invoices/transactions verification at both ends.
- e. Data in log files.

7.7.8.4. Reverse Replication testing

The reverse replication from DR side to DC site needs to be verified properly by the bidders. The testing should include the:

- a. Uninterrupted replication to DC servers.
- b. Lag in replication due to any unforeseen errors.
- c. Process of recovering from lags if any.
- d. Data integrity test at DC servers.

7.7.8.5. Service Maintenance

The bidder requires to maintain the infrastructure at DR site as per the scope mentioned in scope of work in section 7. Reporting for DR site should be as per the section 7.6.

- a. Monitoring of Replication status.

- b. Lag in replication due to any unforeseen errors.
- c. Network monitoring
- d. Security monitoring and analysis
- e. Reporting if any issue is arising in replication.
- f. Daily backup at DR end.

7.7.9. Failover

In the event of a disaster, the SAP system at Proposed Bidder's DR site will become primary system. All users of HPGCL will connect to Bidder's DR site through Internet/MPLS/P2P link. Since the SAP systems has been asked on cloud infrastructure, all systems should be auto scalable. Whenever load of users will grow, the SAP systems should scale resources automatically in terms of RAM and CPU and once the DC is LIVE then reverse replication should be configured and DNS records to be changed and Operations should be transferred to Primary Site (DC), post this the resource utilization like vCPU& RAM should be back to minimum requirement. The failover from Main DC to DR should be done through a proper DR announcement and informing all stakeholders. DR portal should have self-service ability to kick off various tasks including failover and failback.

7.7.10. Restoration

Restoration provides an easy process for copying updated data from the DR server back to the DC server. Whenever main DC will be recovered and operational, the data from DR system to DC systems should be synchronized. Once this data is synchronized and verified, the switchover from DR system to DC system should be done. In that case all users will be accessing SAP systems of main DC

7.8. Reporting & Documentation

7.8.1. Reporting

- i. Submit reports on a regular basis in a mutually decided format that is daily / Weekly and monthly uptime/downtime report. Softcopy of these reports shall be delivered automatically via email at specific frequency and to the pre-decided list of recipients.
- ii. Submit information as part of periodic review as and when required by HPGCL. Following is the indicative list of reports:
 - a. Summary of component wise Data Centre uptime.
 - b. Summary of changes in the Data Centre.
 - c. Log of preventive / scheduled maintenance undertaken.

- d. Configuration Management summary report.
- e. Change Management summary report.
- f. Service Level Management – priority/severity wise response and resolution.
- g. Service Failure Analysis, listing out escalations and downtime/outages, if any.
- iii. Incident Reporting
 - a. Detection of security vulnerability with the available solutions / workarounds for fixing.
 - b. Hacker attacks, Virus attacks, unauthorized access, security threats, etc. – with root cause analysis and the plan to fix the problems.
 - c. Standard Operating Procedure (SOP) for DC, System Documentation/ User manuals have to be prepared and maintained up-to-date with version control.

7.8.2. Documentation

Preparation/ Updating of System Documentation of support requirements, upgrade, patching, cloning & migration in detail with version control. This will also include preparation of System document for complete infrastructure/facilities available in data centre including Server, storage, network, network security configuration and deployments initially complete document and thereafter regular updating of the same with version controls. This documentation should be submitted as the project undergoes various stages of implementation. Indicative list of documents includes:

- i. Detailed Project Plan
- ii. Project Management Plan
- iii. Details of complete solution deployed for HPGCL in DC & DR sites including but not limited to all infrastructure deployed as part of Government Community Cloud, like IP schema, VM details, VLAN, storage LUN details, backup configuration and policies, network settings, firewall policies escalation matrix, BCP document, etc.

7.9. Training, knowledge sharing and skills development for HPGCL employees

- i. Identification of training needs, evaluation of knowledge transfer requirements on the software tools, technologies proposed under this contract.
- ii. Training on Cloud system, implemented customizations & personalization. Periodical training need assessment and training to the existing users on the implemented Cloud solution as and when required.

iii. Training Material should be provided which shall include the presentations used for trainings and the required relevant documents for the topics being covered.

7.10. Help Desk Support

Bidder is required to create and maintain Help Desk / hotline that will resolve problems and answer queries related to any issues, problems, concerns occurring in Government Community Cloud including network connectivity, network security deployed in primary data centre (DC) and disaster recovery (DR) site and its equipment supplied by the bidder.

The help desk support to users shall be provided on 24x7x365 basis (Log issues via phone, ticket and online chat (24x7). The details regarding telephonic support will be carefully considered, as this will have effect on the support response to HPGCL system end-users. The Bidders response and resolution time will be the basis for end- user support time in HPGCL's service level agreements with the Bidder.

7.11. Testing & Validation

- Unit testing and system integration testing after migration
- Functional testing of all SAP modules in coordination with users
- Performance testing and benchmarking against baseline
- Conduct of DR drill to validate RTO and RPO
- Rectification of defects and fine-tuning

7.12. Cutover & Go-Live

- Final cutover execution as per approved plan
- Synchronization of final data and transports
- Switching of users from one system to new system
- Go-Live support and hyper-care period

7.13. Post Go-Live Operation & Maintenance

- Hosting and management of SAP ECC 6.0 at GCC
- 24x7 monitoring of SAP, OS, database, and infrastructure
- Incident, problem, and change management
- Regular SAP kernel, OS, and database patching
- Backup management and periodic restoration testing

7.14. Security & Compliance

- Implementation of role-based access control and least-privilege principles

- Compliance with CERT-In, and Government security guidelines
- Log management and audit trail maintenance
- Support during security audits and inspections

8. General Terms & Conditions of Contract

8.1. Counter Part Arrangements: -

The agency is required to execute the work at HPGCL sites. As a counterpart arrangement, the concerned officers shall be designated for providing the requisite assistance for the proposed work. All other requirements shall be borne by the agency.

8.2. Letter of Award: -

Acceptance of a Bid Proposal by HPGCL shall be communicated by the issue of a letter of Intent (the "Letter of Award").

8.3. Acceptance of Letter of Award and Agreement: -

The successful bidder shall accept the Letter of Award within 7 (seven) days from the date of issue of the Letter of Award by returning a duly signed copy thereof and shall enter into the Contract Agreement with HPGCL within 7 days from the date of issue of work order, on a non-judicial stamp paper of requisite value with HPGCL. The stamp duty is to be borne by the bidder. The bidder shall also furnish PBG along with the contract agreement and shall be kept in full force and effect for the full term of the Contract Agreement. The **period of contract agreement** shall be effective for the full term of Contract Agreement.

8.4. Subletting of Assignment: -

The agency shall not assign or transfer the Contract Agreement, in whole or in part, to any sub-contractor or any other party i.e. no sub-letting of the contract is allowed.

8.5. Force Majeure:

The delay in the completion of work may be treated as force majeure to the firm only if:-

- a) The delay is resulted from any causes arising out of compliance with regulations, orders or instructions of the Central or State Governments, acts of God, acts of Civil & Military authority, fires, floods, strikes, lock-outs, freight embargoes, war-risk riots and civil commotion, and
- b) The contractor's request for extension of the delivery period along with all necessary evidence comes, before the expiry of the schedule date (s) of delivery.

8.6. Indemnity

If, for any reason or resulting from any cause whatsoever, any statement, representation or warranty set forth in the Bid Proposal and Contract Agreement

is found to have been materially incorrect or untrue when made, in breach or fails to prove to be true, the agency shall be fully liable to any and all liability, damage, any third party claims, costs and expenses including legal fees arising from such misrepresentation, breach or incorrect statement. The agency shall indemnify and keep indemnified the Employer fully and hold harmless against any and all liabilities, costs, expenses including legal fees, third party claims of infringement of copyright, trademarks, trade names, patents and other intellectual property rights subsisting in or used in connection with the Consultancy Assistance to HPGCL including all documentation and manuals relating thereto including any original authorship of further developmental works or derivative works made. The agency shall indemnify the Employer against all actions, suits, claims, demands, costs or expenses arising in connection with death or injuries suffered by persons employed by the agency under any applicable Law for the time being in force.

8.7. Compliance with Laws: -

The agency shall conform to and comply with all applicable Laws of the state or central government and / or any Legal Authority, bye-laws of the Employer and all other local authorities including without limitation to industrial and labour laws and tax laws.

8.8. Penalties for Delay: -

Time is the essence of the Project. The agency shall ensure the timely completion of the work as per stipulated completion period. In case of delay in completing the work/job, the penalty shall be levied @ 1% per week or part thereof of the total contract price subject to maximum of 10% of the total contract price. In addition, the bidder is liable to the purchaser for payment penalty as specified in the SLA.

8.9. Arbitration: -

All matters, questions, disputes, differences and / or claims arising out of and / or concerning, and / or in connection with, and / or in consequences or relating to this contract, whether or not obligations of either or both parties under this contract be subsisting at the time of such dispute and whether or not this contract has been terminated or purported to be terminated or completed, shall be referred to the sole arbitrator to be appointed by the mutual consent both the parties.

The award of the Arbitrator shall be final and binding on the parties to this contract. The provisions of Arbitration & Conciliation Act, 1996 as amended from

time to time and rules made thereunder for the time being in force, shall apply to the Arbitration proceedings under this clause.

8.10. Price, Taxes, Duties and Evaluation: -

8.10.1. Price offered in financial bid will be fixed throughout the contract period and no escalation will be allowed.

8.10.2. Any variation, up or down, in taxes and duties or any new levy introduced subsequent to bid opening will be considered as applicable.

8.10.3. The Tax liability, if any, on deputation of the agency personnel shall be borne by the agency and shall be responsibility of the agency as per Tax laws of India.

8.10.4. The contractor shall pay taxes, duties, fees, GST and other impositions as may be levied under the applicable laws in India, the amount of which is deemed to have been included in the quoted price.

8.10.5. Amount payable to the firm shall be subjected to deduction of TDS (Tax deduction at source) or any other applicable taxes as per tax laws of India. The Contractor shall be responsible for assessment of his income as per the applicable Income tax laws in India. The Owner will not accept any liability because of Tax/addition tax/penalty/Interest burden etc. for assessment of his taxable income by Indian Income Tax Authorities.

8.10.6. The personal income tax of overseas agency, if payable shall be paid by the overseas agency directly. Owner shall neither be liable to pay the income tax nor for filling the tax return for overseas agency.

8.11. Statutory Deductions: Statutory deduction on account of Income Tax, Works tax & Sales Tax, etc. including surcharge shall be made at source from the bills of the contractor at the prevailing rates.

8.12. Security Deposit: An amount equivalent to 10% of the Quarterly running bills shall be deducted and kept as security deposit.

Release of Security deposit:

- 1) The EMD of the successful bidder on whom the work order is placed shall be released 30 days after handover of DC & DR infrastructure.
- 2) The Security Deposit deducted as the 10% amount shall be released 30 days after completion of the contract period of 5 years.
- 3) No interest shall be paid on EMD/ Security Deposit for the period it remains deposited with HPGCL.

- 4) The earnest money /security deposit shall be forfeited in part or in full under the following circumstances:
 - a. If the tenderer withdraws his tender at any stage during the currency of his validity period.
 - b. If the order has been issued but the tenderer refuses to comply with it.
 - c. Where the order has been complied with but the supplier stops making the supplies/commissioning after partially fulfilling the order.
 - d. In the event of breach of a contract in any manner.
 - e. In the case of evidence of cartel formation by the bidder(s).
 - f. In case the bidder has submitted or submits false / forged information or documents.
- 5) If the firm fails or neglects to observe or perform any of his obligations under the contract, it shall be lawful for the HPGCL to forfeit either in whole or in part, in its absolute discretion, the EMD/Security deposit furnished by the firm.
- 6) The forfeiture of EMD/Security deposit shall be without prejudice to the right of HPGCL to recover any further amount or any liquidated and/or other damages as admissible under the law, under payments or over payments made to the firm under this contract or any other contract as well as to take such administrative action against the firm as blacklisting etc.

8.13. Jurisdiction of Courts: -

The courts at Panchkula shall alone have exclusive jurisdiction to decide any dispute arising out of or in respect of the contract.

8.14. Exit Management: -

The responsibilities of the cloud service Provider during the exit management period need to be clearly delineated in the document. The bidder shall assist HPGCL in the migrating the VM's data etc., and should ensure destruction of data.

8.15. Termination of Agreement: -

If the work entrusted is not proper and to the satisfaction of HPGCL and if the work of the agency continues to be unsatisfactory, the agreement shall be terminated by HPGCL by giving 45days' notice at any time during subsistence of this agreement. The same will be entrusted to another agency and the extra expenditure incurred by HPGCL, the same will have to be borne by the existing agency.

8.16. Negligence & Risk Coverage: -

If the agency contravenes the provisions of this contract or fails to provide efficient services or refuses to comply with any reasonable order given in writing by the Controlling officer of the Employer or his authorized representatives, a one-week notice shall be served upon him to correct himself and to execute this contract in true spirit. If an agency fails to take notice

of such notice served upon him, the Employer shall be at liberty to take the work wholly or in part, out of the agency hands and re-contract with any other person(s) at the cost of the agency. Any extra expenditure incurred by the Employer on such re-contracting shall also be recoverable from the agency, in addition to the HPGCL right or claim for liquidated damages. It shall also be lawful for the HPGCL to forfeit either in whole or in part, in its absolute discretion, the security deposit furnished by the agency. Forfeiture of the security deposit shall be without prejudice to the right of the HPGCL to recover any further amount of any liquidated and / or other damages to the maximum of 10% of the total contract value, undue payment or overpayment made to the agency under this contract or any other contract.

8.17. Inspection and Tests: - The Supplier shall at its own expense and at no cost to the Purchaser carry out all such tests and/or inspections of to ensure that the Goods and Related Services are complying with the functional parameters, codes and standards specified in the Scope of Work, to the satisfaction of the Purchaser.

Whenever the Supplier is ready to carry out any such test and inspection, it shall give a reasonable advance notice, including the place and time, to the Purchaser.

8.18. Set Off :- Any sum of money due and payable to the supplier under a contract (including security deposit returnable to the supplier) may be appropriated by the Corporation and set off against any claim of the Corporation for the payment of a sum of money arising out of that or any other contract entered into by the supplier with the Corporation.

8.19. Documentation :- The firm and the executive in-charge of the work shall ensure the following document before forwarding the bill of the firm to the accounts wing for pass and payment to avoid delay in payment of the firm:-

i. Firm shall submit the bill in duplicate to the executive in-charge along with the followings:

a) Bill for the work done, in duplicate. The bill should be on the firm's bill book duly serially numbered and bearing date of issue, GST number, PAN. A photo copy of the documents such as GST number, PAN etc. shall be attached with the bill.

b) The firm will provide the undertaking regarding deposition of GST collected from HPGCL with Bills.

ii. The bill of firm along with annexure submitted by contractor as mentioned above should be approved and verified by the officer in-charge for gross value as well as net payable value and accompanied with the certificates/documents as mentioned at iii below.

iii. Certificate from the Engineer In-Charge that, a) Work has actually been done as per the contract and to the entire satisfaction of EIC.

b) No penalty is leviable on the firm on any account as per the contract, if leviable; the amount of penalty is _____.

e) Copy of protocol and certificate for stage payment if required.

Note:-Documents attached along with the firm bill should be referred in the forwarding letter of the executive office forwarded the bill for pass and payment.

8.20. Risk-Purchase: -In addition to the provisions defined in this bid document, the Purchaser will have the right to take action as per following:

8.20.1. In case of delay or non-supply of any or all the material or related services on the dates they are due, the Corporation will have a right to refuse to accept such delayed supplies or services and to make the purchase of the material or services so delayed or not supplied from any alternative source or through departmental manufacture, at the sole risk and cost of the supplier. Any extra expenditure incurred on such purchase or departmental manufacture shall be recoverable in full from the supplier in addition to the Corporation's right or claim for applicable liquidated damages or penalty.

8.20.2. The purchasing authority may cancel the purchase order due to non-fulfillment of its terms (i.e. delivery, non-working, etc.) by the supplier and give notice for recovering the damages applicable to such non-fulfillment.

8.20.3. Where risk purchase action is proposed to be taken, a legal notice should be served by the purchasing authority on the supplier by registered post bringing his defaults to his notice pointedly and asking him to complete all pending supplies immediately, and in any case, within the specified period, (a reasonable period to be specified by the purchasing authority in the notice), failing which the Corporation shall reserve the right to effect the risk purchase at his sole risk and cost, besides levying and recovering liquidated and /or other damages admissible under the contract, or to cancel the contract at its sole discretion and recover the damages for non-fulfillment or unsatisfactory execution of the contract. He should be asked to acknowledge the receipt of the notice immediately. In case he again defaults, he should be issued a further legal notice stating that as he had failed to fulfill his part of the contract by delaying deliveries, the purchasing authority was issuing a tender for the purchase of the quantities or services not delivered by him and any extra cost including the cost of re-tendering will be recoverable from him

in addition to the liquidated damages leviable in terms of the contract. He should be asked to acknowledge the receipt of this notice also. Immediately, thereafter, a notice inviting tenders should be issued and a copy of the NIT should also be sent to the supplier giving him an opportunity again to participate in the tender. On receipt of tenders and their comparison, a copy of the purchase order issued should also be sent to him in case he himself is the person on whom the order is to be placed, he will be entitled only to receive the payment as per the original purchase order. On completion of the supplies or services by the firm from whom this purchase is affected, a full account, including loss incurred on risk purchase, liquated and / or other damages claimable under the contract, should be sent to the supplier against whom the risk purchase is effected demanding legally that he shall make good the amount within a reasonable period (to be specified). Failing payment of the same by the supplier, the amount of the claim shall be recovered from his outstanding dues and / or security deposits against the relevant contract or any other contract in operation, and for the balance, due process of law shall be initiated.

8.20.4. For deciding upon the question of acceptance of delayed supplies or services, and /or of grant of extension in the delivery dates against the supplier's application in this behalf, or enforcing risk purchase action or even cancelling the purchase order in such terms, the powers of purchasing authority shall be exercised by the Committee constituted by HPGCL in cases where the Whole time Directors, HPPC, BOD or other higher authority are the competent purchasing authority.

8.21. Risk and Cost: In case the firm fails to fulfill the contractual obligation, the work shall be got done from some other agency at the risk and cost of the contractor. It shall be without prejudice to the right of HPGCL to recover any further amount or any liquidated and/or other damages.

8.22. Damage to Equipment or to any Person or any Third Party: The agency shall be liable for any loss / damage caused to the property, equipment or to any employee of HPGCL or to third party due to their negligence or willful misconduct. HPGCL shall recover the cost of such damage from the agency. If claims are lodged against HPGCL by third parties for compensation of damage or loss caused by agency fault, the consultancy firm / bidder shall keep indemnified

HPGCL against all claims raised by third parties.

- 8.23. Confidentiality:** - The terms of the bid, Letter of Intents, Contract Agreement and all information disclosed by the HPGCL and obtained by the agency in connection with the Consultancy Assistance to HPGCL shall remain the exclusive property of the HPGCL and shall not be disclosed by the agency to any third party other than without the prior written consent of the HPGCL.

The language of the Contract Documents shall be English.

The laws that apply to the Contract are the laws of Union of India.

The currency of the Contract is Indian Rupees.

8.24. INSURANCE OF WORKERS:

The contractor will be solely responsible for any liability for his workers in respect of any accident, injury arising out and in course of contractor's employment.

8.25. Compliance with Laws:

The agency shall conform to and comply with all applicable Laws of the state or central government and/or any Legal Authority, bye-laws of the Employer and all other local authorities including without limitation to industrial and labour laws and tax laws.

8.26. Factory Act/Minimum Wages Act/Insurance Act/ EPF Act Etc.

Strict adherence of various applicable labour laws like the Factories Act, Minimum Wages Act, ESI Act, Payment of Wages Act, the Workman's Compensation Act, EPF Act, Contractor labour (Regulation & Abolition) Act, 1970 and all other statutory requirements as amended from time to time to the entire satisfaction of Central/State Govt. Authorities, shall be the responsibility of the Contractor and he shall have to make good loss, if any, suffered by HPGCL on account of default in this regard by the contractor.

8.27. Dispute Resolution

Any dispute arising out of or in connection with this Agreement or the SLA shall in the first instance be dealt with in accordance with the escalation procedure as set out in the Agreement. In case the escalations do not help in resolution of the problem within 3 weeks of escalation, both the parties should agree on a mediator for communication between the two parties.

8.28. Pre-Delivery Inspection

HPGCL and their representative would visit both the Primary and Secondary data

center for inspection of the devices/services provided by bidder. The bidder needs to provide a certificate of authenticity to HPGCL for both DC & DR site including link and network equipment.

8.29. General Guidelines

- CSP should ensure compliance, visibility, control & cost of applications running in Govt, Community cloud.
- The bidder should have agreement with OEM for support services 24x7x365 with unlimited Incident support including the unlimited upgrades and updates for proposed replication solution for the period of contract.
- Ensure security and compliance of applications and data by maintaining consistent network and security policies across HPGCL cloud.
- CSP should have zero trust security model so that every VM and application segment at micro level can be secured with stateful firewall.
- Should provide automated software defined network and software defined security to create on demand networks. (routed, NAT network profile for various application and departments as VM are created automatically based on application topology)
- DR portal should have VM level view and summary capturing data replicated volume, time required for replication, overall protection summary.
- The solution should be able to support default host-based replication method and automate execution of recovery testing.
- During the entire period of the contract commencing from the date of Letter of Award, any charges incurred on transport / shipping of hardware / equipment from and to the Bidder's DC & DR Site will be borne by the bidder. No claims will be entertained in this regard. The entire responsibility of covering for damage in transit, making good the damaged parts lies solely with the bidder.
- The selected bidder shall document all the installation and commissioning procedures and provide the same to HPGCL within one week of the commissioning of the DC site and within one week of successful execution

of DR drill for DR Site.

- The selected bidder shall provide manuals for configuring Government Community Cloud at DC & DR Cloud Infrastructure. The selected bidder shall be responsible for documenting configuration of all devices / equipment and keeping back up of all configuration files, so as to enable quick recovery in case of failure of devices.

8.30. Eligibility of The Black Listed Firms to Participate In NIT

The firms who have been blacklisted by HPGCL or any other Centre or State Power Utility/ Board or Corporation/ or any other Thermal/Hydro Elect. project shall not be eligible to bid against the NIT of HPGCL, However;

- (i) In case the blacklisting of the firm is for a specific plant and not for the organization as a whole then such blacklisting will not tantamount to ineligibility of the bidder.
- (ii) Blacklisting of the firm by any unit of the HPGCL shall be considered as ineligibility of the firm at any other project of HPGCL.
- (iii) In case any firm was blacklisted for a limited period in past by any organization and presently such blacklisting has removed by such organization then it will not tantamount to ineligibility of the bidder.

Firm has to certify itself for its eligibility with supporting documents to participate in the NIT stating that it has not been blacklisted by any organization presently, however in case at a later stage such certification found wrong then it will lead to misrepresentation of the facts and the firm shall be treated as blacklisted on this ground and action shall be taken as per HPGCL regulation.

- 8.31.** Any other Terms and conditions not specifically mentioned here but required for said work shall be guided by HPGCL Purchase regulations 2015 available on HPGCL website www.hpgcl.org.in.

9. Special Terms & Conditions of Contract

9.1. PAYMENT TERMS

- Setting up and Migration cost (if any) will be paid after completion of end-to-end migration of existing SAP ERP system and readiness of DC & DR infrastructure (servers, storage, network, backup etc.) respectively & handover to ERP Team.
- Operational Expenditure (Opex) will be paid on Quarterly basis after submission of relevant report/documents as per service. The first quarter shall begin from the date of handover of DC & DR infrastructure & Commencement of O&M Period as per Annexure A.3.
- Total Quarterly Payment should be linked to the compliance with the SLA metrics and the actual payment is the payment due to the Service Provider after any SLA related deductions.
- Deployment plan will be shared with successful bidder post kick off meeting.
- Bidder should have valid PAN Card and GST No. The bidder shall submit the RTGS details (i.e. IFSC code, Bank Account No., Name & Branch of Bank) along with PAN/TIN & GST number details in the 1st running bill and also submit the proof of GST registration to HPGCL.
- All payment shall be made subject to deduction of TDS as per the Income tax act and/or any other statutory provisions.

9.2. PERFORMANCE BANK GUARANTEE (PBG)

The bidder is required to submit PBG of the nationalized bank for an amount equivalent to 10% of the P.O. value valid upto 3 months after the completion of contract Period.

9.3. QUANTITY VARIATION

HPGCL reserves the right to add the number of systems/equipment's/IT Infrastructure to any extent during the contract period subject to maximum of 10% of total contract value regarding goods and services on same rates (unit prices quoted by the contractor), terms & conditions within the total contract period including mandatory & optional services and the charges shall be increased accordingly on pro-rata. Also, HPGCL reserves the right to the delete/reduce the IT infrastructure/services of DC-DRC to any extent and the charges shall be decreased accordingly on pro-rata basis.

9.4. Others

- i. MeitY Empanelled Cloud Service provider (GCC), all Application and infrastructure stack of HPGCL should be logically segregated from the other government clients.

- ii. HPGCL will not be responsible if the CSP has not provisioned some component, sub component, assemblies as a part of bill of material in the bid. The CSP has to be provision the same to meet the solution requirement at no additional cost.

10. SCHEDULE OF REQUIREMENT AND PRICE BID SCHEDULE

1. Bidder should provide all prices as per the prescribed format. Bidder should not leave any field blank. In case the field is not applicable, Bidder must indicate “o” (Zero) in all such fields.
2. All the prices (even for taxes) are to be entered in Indian Rupees ONLY (% values are not allowed)
3. It is mandatory to provide breakup of all taxes, duties and levies wherever applicable and/or payable.
4. HPGCL reserves the right to ask the Bidder to submit proof of payment against any of the taxes, duties, levies indicated.
5. The work awarded will be an all-inclusive contract and HPGCL will not be liable to pay any additional amount for any reason including omission by bidder, escalation in costs etc, except for in variation of statutory taxes and duties as mentioned in relevant Section of the RFP.
6. The unit rate as mentioned in the following formats shall be used for the purpose of Quantity Variation/billing purposes etc. for respective items, if any. However, based on the market trends, HPGCL retains the right to negotiate this rate for future requirements.
7. For the purpose of evaluation of commercial bids, HPGCL reserves the right to make appropriate assumptions to arrive at a common bid price for all the Bidders. This however shall have no co- relation with the contract value or actual payment to be made to the Bidder.
8. Furthermore, any other item required for the overall integration and functioning of the data centre shall be within the scope of the bidder.
9. The bidder will ensure that prices/ cost for all the software licenses required as per this contract will be valid for the entire period of contract and without any additional Operational and Maintenance charges for the same. In case of requirement the bidder has to procure software license to be deployed as a part of the services.
10. For the purpose of this tender, the value of “Price Bid – Serial 1: Setting up and Migration cost /Any other cost, if any”+ “Price Bid – Serial 2: 5 Year O&M Charges” will

be considered for calculating the lowest acceptable commercial bid (L1) for award of this contract.

Price Bid – Part 1: Total Contract Value

Sr. No.	Item Description	Base Price (INR)	Taxes	Total
1	Setting up and Migration cost /Any other cost, if any			
2	5 Year O&M Charges*			
Total	Grand Total With Taxes i.e. TCV= ‘1’+ ‘2’			

Total Price (in words):Rs. _____ only.

*Pls fill Annexure A.7 to fill detailed breakup of the 5 year O&M Cost.

Price Bid – Part 2: Rate Card for additional components

#	Items	Qty	Monthly Prices in INR (excl. GST, rest incl.)	GST (%)	Total GST (Amount in Rs.)	Monthly Prices (In Rs.) (Including GST)
1	vCPU	Per Unit				
2	RAM in GB	Per GB				
3	Disk Storage in TB	Per TB				
4	High Performance Disk storage in TB	Per TB				
5	Backup client	Per Unit				
6	Backup Solution in TB	Per TB				
7	Internet Bandwidth in Mbps	Per Mbps				
8	Public IP	Per IP				
9	P2P / Replication Link in Mbps	Per Mbps				

NOTE:

1. All statutory taxes, duties and other statutory payments including Octroi should be included in the taxes columns. No additional tax except in case of change of rate as per relevant section of the RFP will be reimbursed/ paid by HPGCL.
2. HPGCL reserves the right to add the number of systems/equipment's/IT Infrastructure to any extent during the contract period subject to maximum of 10% of total contract value regarding goods and services on same rates (unit prices quoted by the contractor), terms & conditions within the total contract period including mandatory & optional services and the charges shall be

increased accordingly on pro-rata. However, HPGCL reserves the right to the delete/reduce the IT infrastructure/services of DC-DRC to any extent and the charges shall be decreased accordingly on pro-rata basis.

3. SI shall install and configure the Cloud based solution as per the indicative Implementation plan provided in RFP Document.
4. The indicative bill of materials is summarized in Annexure A.5
5. The minimum technical specification of the Cloud based Solution to be supplied is mentioned in the Technical Specification Section 11.
6. The SI should supply latest configuration and standard of services available in the market at the date of delivery for the price quoted by the SI in the financial proposal.
7. Existing CSP will not be eligible for the payment of Setting up and Migration cost.
8. The rates offered for cloud services must be valid for entire contract/project duration and No upward variation in these quoted rates shall be allowed during this period.
9. HPGCL will have a liberty to scale up / order additional cloud service items in the unit rates of particulars/services offered in the commercial bid as per Part-2: Rate Card for additional components during the entire contract/project duration.
10. HPGCL reserves the right to scale down the Cloud based Infrastructure as a Services based on HPGCL and project schedule requirements. The payment to Cloud services would be made only on the actual usage of the Cloud based IT Infrastructure Services as per the rates provided by the SI in their Commercials **(Annexure- A.7)**.
11. All cost before O&M commencement date to be considered as part of Migration Charges.

11. TECHNICAL SPECIFICATIONS

11.1. General Terms & Conditions:

The aspect of reliability, availability and serviceability features as primary DC & DR Site are meant for running mission critical applications. While selecting the entire DC & DR Platform the care should be taken so that the selected Infrastructure should support the scalability, availability & performance.

- a) The Uptime required for entire GCC Infrastructure is 99.5%.
- b) The servers need to be certified for SAPS requirement as mentioned in the SAP landscape.
- c) Detailed Specification & detailed BoM has to be shared by bidder.
- d) Appropriate Security solutions such as vFirewall/UTM,IPS/IDS/Anti-DDoS/VPN, software along with licenses for number of users / installed capacity, anti-virus applications etc. should be provided with the systems.
- e) Appropriate network and data security solution should be designed for securing HPGCL's application and data, minimum requirements are mentioned in the respective technical specifications, however, bidder can propose most optimum solution to secure entire solution, applications & data and provide secure access to HPGCL's users over different links including Internet link considering Cert-In & NCIIPC – Critical Sector Guidelines
- f) Additional resources during failover with necessary Infrastructure, management software and licenses should be part of the solution
- g) CPU proposed should be as per SAPS at 65% utilization.
- h) DR Drill has to be carried twice in a year.
- i) Compute and Storage of only Production landscape (without **High Availability**) of DC to be considered at DR.
- j) Carry out the capacity planning in advance to identify & provision, where necessary, the additional capacity to meet the user growth and / or the peak load requirements to support the scalability and performance requirements of the solution.
- k) The Service Provider shall provide the necessary details including the sizing calculations, assumptions, current workloads & utilizations, expected growth / demand and any other details justifying the request to scale up or scale down.
- l) Manage the instances of storage, compute instances, and network environments. This includes department-owned & installed operating systems and other system software that are outside of the authorization boundary of the CSP. Service Provider is also responsible for managing specific controls relating to shared touch points within the security authorization boundary, such as establishing customized security control solutions.
- m) Provisioning and configuring their implementation of storage, virtual machines, and VPCs that allows for the Service Provider to launch and terminate cloud instances, change firewall parameters, and perform other management functions. Upon deployment of virtual machines, the Service Provider has to assume full administrator access and is responsible for performing additional configuration, patching, security hardening, vulnerability scanning, and application installation, as necessary.
- n) HPGCL will release separate RFP to provide MPLS and Internet VPN connectivity from their multiple site locations to DC and DR. Bidder to consider connectivity and Integration of ISP Router (MPLS and Internet VPN RFP successful bidder) with Bidder's proposed DC-DR Government Community Cloud solution.
- o) Router for Point. to Point. link termination between DC & DR
- p) Network Switch can be shared or dedicated.

- q) Secure and appropriately segregate / isolate data traffic/application by functionality using DMZs, subnets etc.
- r) Additional resources during failover with necessary Infrastructure, management software and licenses should be part of the solution.
- s) All the proposed hardware, software and support part codes (if applicable) needs to be provided along with technical bid and commercial bid.
- t) Furthermore, any other item required for the overall integration and functioning of the Data Centre, though not covered in the detailed specification, bill of materials, shall be within the scope of the bidder and should be included in the Solution.
- u) The bidder shall also provide all required equipment which may not be specifically stated in the RFP but are required to meet the intent of ensuring completeness, maintainability and reliability to support to run the application smoothly.
- v) Any non-compliance to above clauses & technical specifications will result in direct disqualification of the bid.
- w) The CSP should ensure that the data should not leave the boundaries of the country and data residing with CSP and should not be accessed by any entity outside the control of Purchaser.
- x) The CSP shall not delete any data at the end of the agreement (for a maximum of 90 days beyond the expiry of the Agreement) without the express approval of the HPGCL.
- y) Migration of the Application Suite from the existing infrastructure to the cloud infrastructure. The migration shall also include the migration of underlying data & files from the current database(s) / storage into the database(s) / storage on the cloud.
- z) The Vulnerability assessment of complete infrastructure should be done once in a Quarter and share reports with HPGCL.
- aa) The ownership of the data generated upon usage of the system, at any point of time during the contract or expiry or termination of the contract, shall rest absolutely with HPGCL.
- bb) In case of end of agreement, the bidder shall be responsible for providing the tools for import / export of VMs & content and HPGCL shall be responsible for preparation of the Exit Management Plan and carrying out the exit management / transition.
- cc) Once the end of agreement and exit process is completed, Bidder to remove the data, content and other assets from the cloud environment and destroy the VM, Content and data of HPGCL as per stipulations and shall ensure that the data cannot be forensically recovered.
- dd) At the end of the agreement, HPGCL will ensure that all the storage blocks or multiple copies of data if any are unallocated or zeroed out by the bidder so that data cannot be recovered.
- ee) Cloud service shall offer SSD backed storage and shall support High IOPS. CSP should deliver minimum 5000 IOPS per TB for OLTP load. The IOPS for NON OLTP load should be minimum 2000 per TB.
- ff) Bidder should provide Burstable internet bandwidth as per customer ask within 8 Hours of SLA.
- gg) Bidder should meet/comply the following technical specifications failing which bidder will be rejected and its financial bid will not be opened.
- hh) If the bidder is de-empanelled by MeitY during the contract period, the bidder shall submit a fresh MeitY empanelment within three months from the date of de-empanelment, failing which HPGCL reserves the right to cancel the contract.

Cloud Specifications

Sr. No.	Functional Requirement	Compliance Yes/No
1	In order to increase the service availability, the cloud service provider must offer multidimensional scaling of cloud service where resource like RAM and CPU will scale vertically as well systems should scale horizontally.	
2	The solution should be capable of allowing users to self-service compute, network and storage infrastructures automatically based on workload demand. Notifications should be triggered each time a configuration changes.	
3	The solution should provide image library, where Software and server images can be maintained. Facilities should be there to import new server templates to the library and registering, so as to use the same for provisioning the new virtual and physical servers.	
4	The Solution should be capable of orchestrating compute and storage resource placements based on flexible policies to maximize hardware utilization.	
5	Should be able to predict billing of resources before provisioning any cloud resources if integrated with billing system.	
6	The solution must provide API reference, So as to aid in integrating with third party system.	
7	The Solution should be able to provide workload migration, orchestration, interoperability between private and public clouds (like auto-scaling, cloud bursting).	
8	The Solutions should be deployable on a wide variety of open source and proprietary host Operating Systems like Microsoft	

Sr. No.	Functional Requirement	Compliance Yes/No
	Windows, Red hat Linux, SUSE Linux. Customer preferred OS is SUSE Linux.	
9	Software console shall provide a single view of all virtual machines, allow monitoring of system availability and performance and automated notifications with email alerts. Management console shall provide reports for performance and utilization of physical servers, Virtual Machines & hypervisors. It shall co-exist and integrate with leading systems management vendors.	
10	Cloud Management system should provide nearly real-time utilization & trend analysis for CPU, Memory, Network, disk and power for virtual machine.	
11	Cloud Management system should provide forecast analysis for future workloads based on previous server utilization history.	
12	Cloud Management system shall provide the Manageability of the complete inventory of virtual machines with greater visibility into object relationships.	
13	It should provide seamless migration from physical to virtual and virtual to virtual servers.	
14	It should provide self-service portal through which users can subscribe for their suitable virtual machine / solution template.	
15	Cloud Management system should enable to deliver Infrastructure as a service with complete lifecycle management	
16	Proposed solution should have state-less hardware platform & ability to move workloads among the farm of servers.	
17	It should able to integrate and manage virtual MAC and WWN numbers for better and tight integration prospective.	
18	The cloud solution should have the capability to create virtual machines with required number of vCPUs, RAM, Disk space,	

Sr. No.	Functional Requirement	Compliance Yes/No
	&OS.	
19	The cloud solution should tightly integrate with FC and iSCSI SAN Solution proposed to leverage high performance shared storage for greater manageability, flexibility and availability of cloud services.	
20	The bidder must provide SMTP as a service for application/mail-based alerts and notifications routable to any domain.	
21	Cloud solution should support shared disk allocation between 2 or more nodes as to ensure OS cluster implementation as per solution ask. Bidder to consider High availability licenses such as OS cluster licenses and subscription as per solution requirement	
22	The Cloud management system should generate automated notifications and alerts and can trigger to remedy and pre-empt problems on VM.	
23	The Solution should provide a simple to use intuitive Web portal for DC Cloud Administrator and User Departments.	
24	The Solution should offer Service catalogue listing availability of Cloud infrastructure like Virtual Machines, Storage, and Common Services etc offered by Government Community Cloud.	
25	The Solution should have role-based access system.	
26	The Solution should automate provisioning of new and changes to existing infrastructure (Virtual, Application or Common Services) with approvals.	
27	The Solution should allow easy inventory tracking of all the virtual assets in the Government Community Cloud. It should	

Sr. No.	Functional Requirement	Compliance Yes/No
	also store detailed information about assets.	
28	The Solution should be able to dynamically scale resources with optional control over movement of virtual machines like restricting VMs to run on selected physical hosts.	
29	Should be able to set threshold of cloud resources for all types of scalability.	
30	The Solution should offer usage report for virtual machine reporting usage of memory consumption, CPU consumption, and disk consumption.	
31	The Solution should have the ability to generate reports as well as ability to export to common formats.	
32	The Solution should allow creation of library hosting with various Operating System that can be selected while creating new virtual and physical servers.	
33	The Solution should track ownership and utilization of virtual machines. Solution should have capability to allocate bandwidth based on application requirement & to avoid over provisioning of network resources.	
34	Should ensure that the virtual machine format is compatible with other cloud systems.	
35	Cloud Orchestration System should give provision to import cloud VM template from other cloud systems.	
36	The cloud virtual machines should be scalable in terms of RAM and CPU automatically without reboot.	
37	Cloud Orchestration System must support multi-tenancy for management perspective. Different department or group company should be able to access allocated resources only.	
38	Should support use of appropriate load balancers for network	

Sr. No.	Functional Requirement	Compliance Yes/No
	request distribution across multiple cloud VMs.	
39	Cloud Orchestration System should provide facility to make template from virtual machines as well as to make clone of cloud virtual machine.	
40	The solution shall provide near zero downtime host patching with maintenance mode to move running workloads to other hosts on the platform with a consistent audit trail of the patching process.	
41	Cloud Orchestration System should give provision to monitor the network traffic of cloud virtual machine.	
42	Cloud Orchestration System should offer provision to analyse of amount of data transferred of each cloud virtual machine.	
43	Cloud Orchestration System must offer provision to monitor uptime of each cloud virtual machine.	
44	Should be able to take console of cloud virtual machines from portal to perform any operations.	
45	Cloud Orchestration System should give provision to attached new block disk to any cloud VM from self-service portal.	
46	Cloud Orchestration System should have provision to ensure that cloud virtual machine is into separate network tenant and virtual LAN.	
47	In order to decrease DNS resolution time and highest availability of DNS system, the cloud service providers must have authoritative name servers network distributed across India with minimum four PoP of authoritative name servers	
48	Cloud Orchestration System must ensure that there are sufficient graphical reports of cloud resource utilization and	

Sr. No.	Functional Requirement	Compliance Yes/No
	available capacity.	
Hypervisor		
1	The Virtualization software should be based on hypervisor technology which sits directly on top of Hardware (Bare Metal) with no dependence on a general-purpose OS for greater reliability and security.	
2	The Solution should be able to run various flavours of Windows & Linux operating systems (at least Redhat, SUSE, Ubuntu, Debian, Oracle Enterprise Linux & CentOS)	
3	The Solution should have the capability for creating Virtual Machines templates to provision new servers.	
4	The Virtualized Machines should be able to boot from iSCSI, FCoE and fiber channel SAN storage	
5	The Virtualized Infrastructure should be able to consume Storage across various protocols like DAS, NAS, and SAN. It should support thin provisioning.	
6	The Solution should allow for taking snapshots of the Virtual Machines to be able to revert back to an older state, if required.	
7	The Solution should be able to dynamically allocate and balance computing capacity across collections of hardware resources of one physical box aggregated into one unified resource pool.	
8	The Solution should cater for the fact that if one server fails all the resources running on that server shall be able to migrate to another set of servers as available.	
9	The Solution should provide support for cluster services between Virtual Machines.	

Sr. No.	Functional Requirement	Compliance Yes/No
10	The Solution should provide the monitoring, prioritizing and reserving capabilities for storage, processor, network, memory so as to ensure that the most important Virtual Machines get adequate resources even in the times of congestion.	
11	The Solution should deliver above listed Hypervisor capabilities using standard server infrastructure like HP, DELL, IBM, Cisco, Oracle etc.	
12	The solution should have the ability to live migrate VM files from one storage array to another without VM downtime. Support this migration from one storage protocol to another (ex. FC, iSCSI, NFS, DAS).	
13	The Management software should have integrated Physical Host and Virtual Machine performance monitoring including CPU, Memory, Disk, Network, and Power.	
14	The Solution should cater for the fact that if one server fails all the resources running on that server shall be able to migrate to another set of servers as available.	
15	The Solution should provide security on the hypervisor, as well as guest VMs. It should provide the ability to apply security to virtual machines and security policies that can follow the machines as they move in the cloud.	
Network		
1)	The Solution should allow configuring each Virtual Machine with one or more virtual NICs. Each of those network interfaces can have its own IP address and even its own MAC address.	
2)	The Solution should allow for creating virtual switches that connect virtual machines.	

Sr. No.	Functional Requirement	Compliance Yes/No
3)	Solution should take advantage of NIC Teaming Capabilities.	
4)	The Solution should deliver above listed all network capabilities using standard network infrastructure such as Cisco, Juniper, HP etc.	
5)	Uplink connectivity from Physical Servers should to Switches should be at least 10Gbps with redundancy.	

EMS/ NMS Specifications

Sr. No.	Functional Requirement	Compliance
		(Yes/No)
	Specifications of EMS/ NMS	
1)	The proposed monitoring solution should provide comprehensive and end-to-end management of all the components for each service including all virtual servers, storage and network	
2)	The proposed solutions should be able to monitor various operating system and parameters such as processors, memory, files, processes, file systems etc. where applicable, using light footprint agents on the servers to be monitored.	
3)	The proposed server monitoring solution should detect threshold violations in real-time, sending an alert via email or/and SMS.	
4)	Support for SNMP v1-3, IPv4/IPv6 addressing & SSH	
5)	Should automatically provide real-time, in-depth network performance statistics after discovery/configuration of devices, including but not	

Sr. No.	Functional Requirement	Compliance
		(Yes/No)
	limited to, CPU load, Memory utilization, Interface utilization, packet loss.	
6)	Should show statistics like interface bandwidth, current traffic in Mbps, total bytes received/transmitted etc.	
7)	Should have options to configure polling intervals as needed	
8)	All collected performance information for monitored services must be stored in Performance Monitoring database.	
9)	Should have a Dashboard manager for creation of various custom views	
10)	Should be able to create topology manually or automatically	
11)	Bidder has to propose the complete Cloud EMS solution with necessary hardware & software components including licenses that are scalable enough to manage the DR site for the entire project period.	
	Reporting	
1)	Real-time split second and historical graphs	
2)	Scheduling of recurring reports	
3)	Report export to: email, Excel, and PDF formats	
4)	Pre-defined and customizable reports	
	Trouble shooting and alerts	
1)	The proposed solutions should be capable of detecting and alerting network level issues like loop detection, link breakages, hardware failure etc which causes breakdown	

Sr. No.	Functional Requirement	Compliance
		(Yes/No)
	of network connectivity and slowness in network performance	
2)	Visual indication on the Map if a device or service affected is down.	
3)	The proposed solution should be able to display events and alerts in the web console	
4)	It should also allow creation of new alerts from scratch and also customizable threshold limits	
5)	Should have various actions that can be taken, including but not limited to, sending out emails, running executable, emailing automated message, SMS support etc.	
6)	Configurable alerts thresholds	

Helpdesk Management System specifications

Sr. No.	Functional Requirement	Compliance
		(Yes/No)
1)	Solution should be scalable and open to third party integration	
2)	Provide flexibility of logging incident manually via windows GUI and web interface	
3)	The web interface console of the incident tracking system would allow viewing, updating and closing of incident tickets.	
4)	Allow categorization on the type of incident being logged	
5)	Provide classification to differentiate the criticality of the incident via the priority levels, severity levels and impact levels	
6)	Provide audit logs and reports to track the updating of each incident ticket	

7)	It should be able to log and escalate user-based requests.	
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Cloud Virtual Machine Specifications

Sr. No	Minimum specifications for VMs on Government Community Cloud	Compliance (Yes/NO)
1)	Cloud virtual machine provided by CSP should be provisioned on redundant physical infrastructure.	
2)	Cloud virtual machines should be auto-scalable in terms of RAM and CPU automatically without reboot.	
3)	CSP should provide facility to make template from virtual machines.	
4)	CSP should provide access of cloud virtual machines either by SSH in case of Linux and RDP in case of Windows servers.	
5)	CSP to ensure VM sizing should be as per required SAPS and solution.	
6)	CSP to share SAPS offered per vCPU at 65% utilization.	

Cloud Storage specifications

Sr. No	Minimum specifications for Storage services in Government Community Cloud	Compliance (Yes/No)
1)	Storage should be latest, enterprise class and from reputed OEM. It should support all class of disks such as SAS, NL-SAS and SSD. Storage solution should provide dedicated LUNs/Volumes assigned to HPGCL's Government Community Cloud with replication enabled.	
2)	CSP should provide scalable, dynamic and redundant storage service with no single point of failure.	
3)	Should support both FC& ISCSI protocols.	

4)	There should be standards IOPS offering per GB and high-performance disk offering for OLTP kind of workload. Proposed solution should ensure that the storage offered for OLTP load would deliver minimum 8000 IOPS per TB. While storage for OLAP load and other VMs must deliver minimum 5000 IOPS per TB.	
5)	Should offer multiple RAID levels (RAID 5/6/10 etc.).	
6)	Storage service should have capability to scale as per HPGCL's current and future requirement without requiring VM's, Physical Nodes, to be rebooted.	
7)	Shall offer block storage volumes greater than 1 TB in size.	
8)	Should have block disk offering as well as file/object disk offering to address different kind of HPGCL needs.	
9)	The Proposed Storage Solution should have the ability to thin provision disks to avoid allocating all storage space upfront.	
10)	The Solution should support migration of the live Virtual Machine files from one storage array to another storage.	
11)	Server to storage connectivity should be on 16Gbps for SAN and 10Gbps for iscsi at minimum with redundancy.	

Firewall at DC & DR (To be configured in HA)

Bidder should provide the firewall/UTMas per below mentioned specification.

Sr. No	Firewall/UTM Specifications	Compliance (Yes)
1)	Firewallthroughput2Gbps	
2)	Maximum firewall connections/second15000	
3)	Packets per second(64byte)250,000	
4)	Maximum 3DES/AES VPN throughput 170Mbps	
5)	Maximum site-to-site and remote access VPN sessions 250	

6)	Maximum SSL VPN user sessions 250	
7)	Application-layer firewall services	
8)	Management Options Required Console, Telnet, SSHv2, Browser based configuration, SNMPv1/2/3	

Security Specifications (To be configured in HA)

Bidder should propose adequate security to ensure continuous and secure availability of the SAP ERP systems from DC & DR and are required to propose following services as part of the solution.

Sr. No	Security Components	Compliance (Yes or No)
1)	Appropriate dedicated vFirewall/UTM should be provided.	
2)	Internet router for internet links	
3)	IPS/IDS – Intrusion Prevention and detection system	
4)	HIPS – Host based Intrusion Prevention System	
5)	Clean Traffic (DDOS Protection) – Internet traffic should be free from treats and attacks including DDOS attacks.	
6)	VPN Concentrator – To provide SSL-VPN and IPsec VPN connections to remote and mobile users	
7)	Antivirus for servers	
8)	Global DNS services – to provide fast resolution of DNS addresses in case of different users accessing the application from different regions and easy failover from one site to another, without requiring changing any DNS records.	
9)	Internet facing services shall be deployed in a zone (DMZ) different from the application and database zones. The Application and Database nodes (RDBMS) shall be in a separate zone with internal firewall security layer.	

Sr. No	Security Components	Compliance (Yes or No)
10)	The application development zone and testing zone on the cloud shall be separate from the production in a different VLAN than the production environment and setup such that users of the environments are in separate networks under control of firewall.	
11)	All other monitoring and management applications shall also be separate from the production in a different VLAN than the production environment and setup such that users of the environments are in separate networks under control of firewall.	

Backup Solution specifications

Bidder should propose appropriate backup solution.

Sr. No	Backup Solution	Compliance (Yes or No)
1)	Solution should be able to perform backups of VM image, database, filesystem, operating system, NFS mount points etc.	
2)	Backup solution should be Disk to Tape or Disk to Disk type.	
3)	Offer a service with ability to take unattended and policy based regular and scheduled backup.	
4)	Daily incremental backup should be taken along with three times daily backup of database log files, and retention would be 2 weeks.	
5)	Full back up for Weekly and monthly backup should be taken and retention period would be 4weeks for Weekly and 6 months for monthly.	
6)	Yearly full backups should be taken with Retention period of 7 years.	

Sr. No	Backup Solution	Compliance (Yes or No)
7)	Backup media to be stored in a safe environment so that whenever the backup is required to be restored for any purpose bidder should be able to restore the data. Appropriate Backup & restoration solution should be proposed considering this point.	
8)	Bidder to ensure adhoc backup and restore request as per customer requirement with 24 x 7 support.	
9)	Bidder shall not delete any data during or at the end of the agreement without the express approval of HPGCL.	
10)	Generation and publishing of backup reports periodically	
11)	Periodic Browsing of the Backup Media and Periodic Restoration Testing of the Backup.	

12. SERVICE LEVEL AGREEMENTS (SLA's)

12.1. Purpose of SLA

The purpose of this SLA is to clearly define the levels of service to be provided by the bidder for the duration of this contract or until this SLA has been amended. The benefits of this SLA are to:

1. SLA is between the bidder and purchaser.
2. Make explicit the performance related expectations on purchaser's requirements from the bidder
3. Assist the purchaser to control levels and performance of services provided by the bidder
4. Trigger a process that applies Purchaser and bidder management attention to aspects of performance that drop below an agreed upon threshold, or target.

12.2. Description of Services Provided

Bidder shall provide service as defined in Section 7: Scope of Work, in accordance to the definitions and conditions as defined in the Section 8: General Conditions of Contract and Section 9: Special Conditions of Contract.

12.3. Duration of SLA

This Service level agreement would be valid for entire period of contract. This SLA may be reviewed and revised as per mutual agreement.

12.4. SLA Targets

This section is agreed to by purchaser and bidder as the key bidder performance indicator for this engagement. The following section reflects the measurements to be used to track and report systems performance on a regular basis. The targets shown in the following tables are for the period of contract or its revision whichever is earlier.

12.4.1. Issue Severity Level & Resolution Time

The following section provides the service levels applicable during support period for various categories of issues.

12.4.1.1. Severity Level

Severity Level	Description	Examples
Severity 1	Environment is down, or major malfunction resulting in an inoperative condition or disrupts critical business functions and requires immediate attention. A significant number of end users (includes public users) are unable to reasonably perform their normal activities as essential functions and critical programs are either not working or are not available	Non-availability of VM. No access to Storage, software or application
Severity 2	Loss of performance resulting in users (includes public users) being unable to perform their normal activities as essential functions and critical programs are partially available or severely restricted. Inconvenient workaround or no workaround exists. The environment is usable but severely limited.	Intermittent network connectivity
Severity 3	Moderate loss of performance resulting in multiple users (includes public users) impacted in their normal functions.	

12.4.1.2. IT Infrastructure SLA

S. N	Service Level Objective	Measurement Methodology /	Target/Service Level	Penalty
Availability/Uptime				
1.	Availability/Uptime of cloud services Resources for Production environment (VMs, Storage, OS, VLB, Security Components,)	Availability (as per the definition in the SLA) will be measured for each of the underlying components (e.g., VM, Storage, OS, VLB, Security Components) provisioned in the cloud. Measured with the help of SLA reports provided by CSP	Availability for each of the provisioned resources: >=99.5%	Default on any one or more of the provisioned resource will attract penalty as indicated below. <99.5% & >=99% (10% of the <<Periodic Payment>>) < 99% (30% of the <<Periodic Payment>>)

2.	Availability of Critical Services (e.g., Register Support Request or Incident; Provisioning / De-Provisioning; User Activation / De-Activation; User Profile Management; Access Utilization Monitoring Reports) over User / Admin Portal and APIs (where applicable)	Availability (as per the definition in the SLA) will be measured for each of the critical services over both the User / Admin Portal and APIs (where applicable)	Availability for each of the critical services over both the User / Admin Portal and APIs (where applicable) $\geq 99.5\%$	Default on any one or more of the services on either of the portal or APIs will attract penalty as indicated below. $<99.5\%$ and $\geq 99\%$ (10% of the $<<\text{Periodic Payment}>>$) $<99\%$ (20% of the $<<\text{Periodic Payment}>>$)
3.	Availability of the network links at DC and DR (links at DC / DRC, DC-DRC link)	Availability (as per the definition in the SLA) will be measured for each of the network links provisioned in the cloud.	Availability for each of the network links: $\geq 99.5\%$	Default on any one or more of the provisioned network links will attract penalty as indicated below. $<99.5\%$ & $\geq 99\%$ (10% of the $<<\text{Periodic Payment}>>$) $<99\%$ (30% of the $<<\text{Periodic Payment}>>$)
4.	Availability of Regular Reports (e.g., Audit, Certifications,) indicating the compliance to the Provisional Empanelment Requirements.		15 working days from the end of the quarter. If STQC issues a certificate based on the audit, then this SLA is not required.	5% of $<<\text{periodic Payment}>>$

S. N	Service Level Objective	Measurement Methodology /	Target/Service Level	Penalty
Incident & Helpdesk				
1.	Response Time	Average Time taken to acknowledge and respond, once a ticket/incident is logged through one of the agreed channels. This is calculated for all tickets/incidents reported within the reporting month.	95% within 15minutes	$<95\%$ & $\geq 90\%$ (5% of the $<<\text{Periodic Payment}>>$) $<90\%$ & $\geq 85\%$ (7% of the $<<\text{Periodic Payment}>>$) $<85\%$ & $\geq 80\%$ (9% of the $<<\text{Periodic Payment}>>$)
2.	Time to Resolve - Severity 1	Time taken to resolve the reported ticket/incident from the time of logging.	For Severity 1, 98% of the incidents should be resolved within 30 minutes of problem reporting	$<98\%$ & $\geq 90\%$ (5% of the $<<\text{Periodic Payment}>>$) $<90\%$ & $\geq 85\%$ (10% of the $<<\text{Periodic Payment}>>$) $<85\%$ & $\geq 80\%$ (20% of the $<<\text{Periodic Payment}>>$)

3.	Time to Resolve - Severity 2,3	Time taken to resolve the reported ticket/incident from the time of logging.	95% of Severity 2 within 4 hours of problem reporting AND 95% of Severity 3 within 16 hours of problem reporting	<95% &=>90% (2% of the <<Periodic Payment>>) < 90% &=> 85% (4% of the <<Periodic Payment>>) < 85% &=> 80% (6% of the <<Periodic Payment>>)
4.	Incident Logs	All incidents/ events raised with the IT helpdesk should be logged into the system by the service desk	100% calls to be logged and intimated to the end user with the trouble ticket number within the time as specified in the Notification and Resolution time table above	1. 95%-99% calls logged: 5% penalty on the monthly Support and Maintenance charges of HPGCL 2. Less than 95% calls logged and closed: 10% penalty on the monthly IT support and Maintenance charges of HPGCL
5.	Root cause Identification	Bidder shall analyze all the incidents and provide a root cause report every month if there are more than 2 incidents of the same type. Bidder shall take the needed corrective action to prevent further issues due to the same cause.	100% timely Submission covering all incidents logged in 5 working days.	1. 5% penalty on the monthly IT support and maintenance charges of HPGCL, if the Bidder does not submit a problem report for that month 2. 5% penalty on the monthly IT support and maintenance charges of HPGCL, if the Bidder does not perform the corrective action for morethan one calendar month

S. N	Service Level Objective	Measurement Methodology /	Target/Service Level	Penalty
Security Incident & Management Reporting				
1.	Percentage of timely incident report	Measured as a percentage by the number of defined incidents reported within a predefined time (1 hour) limit after discovery, over the total number of defined incidents to the cloud service which are reported within a predefined period. Incident Response - CSP shall assess and acknowledge the defined incidents	95% within 1 hour	<95% &=>90% (5% of the <<Periodic Payment>>) < 90% &=> 85% (10% of the <<Periodic Payment>>) < 85% &=> 80% (15% of the <<Periodic Payment>>)

		within 1 hour after discovery.		
2.	Percentage of timely incident resolutions	Measured as a percentage of defined incidents against the cloud service that are resolved within a predefined time limit (month) over the total number of defined incidents to the cloud service within a predefined period. (Month). Measured from Incident Reports	95% to be resolved within 1 hour	<<95% & >=90% (5% of the <<Periodic Payment>>) < 90% & >= 85% (10% of the <<Periodic Payment>>) < 85% & >= 80% (15% of the <<Periodic Payment>>)

S. No.	Service Level Objective	Measurement Methodology /	Target/Service Level	Penalty (Indicative
Vulnerability Management				
1.	Percentage of timely vulnerability corrections	The number of vulnerability corrections performed by the cloud service provider - Measured as a percentage by the number of vulnerability corrections performed within a predefined time limit, over the total number of vulnerability corrections to the cloud service which are reported within a predefined period (i.e. month, week, year, etc.). • High Severity Vulnerabilities – 30 days - Maintain 99.95% service level • Medium Severity Vulnerabilities – 90 days - Maintain 99.95% service level	99.95%	>=99% to <99.95% [10% of Periodic Payment] >=98% to <99% [20% of Periodic Payment] <98% [30% of Periodic Payment]

2.	Percentage of timely vulnerability reports	Measured as a percentage by the number of vulnerability reports within a predefined time limit, over the total number of vulnerability reports to the cloud service which are reported within a predefined period (i.e. month, week, year, etc.).	99.95%	>=99% to <99.95% [10% of Periodic Payment] >=98% to <99% [20% of Periodic Payment] <98% [30% of Periodic Payment]
3.	Security breach including Data Theft/Loss/Corruption	Any incident where in system compromised or any case wherein data theft occurs (including internal incidents)	No breach	For each breach/data theft, penalty will be levied as per following criteria. Any security incident detected INR 5 Lakhs. This penalty is applicable per incident. These penalties will not be part of overall SLA penalties cap per month. In case of serious breach of security wherein the data is stolen or corrupted, HPGCL reserves the right to terminate the contract.

S. No.	Service Level Objective	Measurement Methodology /	Target/Service Level	Penalty
RTO/RPO				
1.	Recovery Time Objective (RTO)	Measured during the regular planned or unplanned (outage) changeover from DC to DR or vice versa.	<= 4 hours	10% of <<Periodic Payment>> per every additional 4 (four) hours of downtime
2.	Recovery Point Objective (RPO)	Measured during the regular planned or unplanned (outage) changeover from DC to DR or vice versa.	<= 2 hours	10% of <<Periodic Payment>> per every additional 2 (two) hours of downtime

12.5. Breach of SLA

In case the bidder does not meet the SLA parameters as defined above for three continuous time periods of measurement (quarters/ 3 months), the purchaser will consider this a breach of SLA and appropriate provisions under this contract will be initiated.

- Penalties shall not exceed 100% of the quarterly bill.
- If the penalties exceed more than 50% of the total (quarterly/monthly) bill, it will result in a material breach. In case of a material breach, the bidder will be given a cure period of one month to rectify the breach failing which a notice to terminate may be issued by the HPGCL.
- The payment shall be linked to the compliance with the SLA metrics.
- The penalty in percentage is indicated against each SLA parameter
- In case multiple SLA violations occur due to the same root cause or incident then the SLA that incurs the maximum penalty may be considered for penalty calculation rather than a sum of penalties for the applicable SLA violations.

12.6. Exclusions

The bidder will be exempted from any non-adherence to SLAs under the following conditions:

1. Force Majeure
2. Delay due to HPGCL

12.7. Monitoring & Auditing

The Bidder has to ensure the following key service level objectives that relate to the cloud service and related aspects are

- * **Availability**
- * **Incident and Helpdesk**
- * **Response Time**
- * **Security Incident and Management Reporting**
- * **Vulnerability Management**

Also, certain requirements such as Availability of Patches, Timely Cloud Service Change Notifications etc. are not mentioned in the SLAs but bidder are required to comply with the requirements. Bidder will provide required reports as per the agreed date of each month or as per requirements. HPGCL authority will review the performance of bidder

against the SLA parameters each month, or at any frequency defined in the contract document. The review/audit report will form basis of any action relating to imposing penalty or breach of contract. Any such review / audit can be scheduled or unscheduled. The results will be shared with the bidder as soon as possible. HPGCL reserves the right to appoint a third-party auditor to validate the SLA.

12.8. Warranty & Maintenance

All DC & DR hosted Infrastructure hardware / equipment supplied as part of this RFP should be provided with an in- built management, maintenance and software upgrade service commencing after the award of letter of award till completion of the contract period. The bidder is required to provide the prices in the relevant section of price bid.

13. LIST OF ANNEXURES

Annexure	Content
‘Annexure- A.1’	Cover Letter Format
‘Annexure- A.2’	Technical Bid Format
‘Annexure- A.3’	Project Timelines
‘Annexure- A.4’	HPGCL Sites
‘Annexure- A.5’	SAP Sizing for DC & DR
‘Annexure- A.6’	No Deviation Certificate
‘Annexure- A.7’	Price Bid Format

Annexure-A.1

Cover Letter Format

Bid Reference No.:

From:

Bidders Name and Address:

Person to Be Contacted:

Designation:

Telephone & Mobile No(s):

To:

Haryana Power Generation Corporation Limited

Room No. 307, Urja Bhawan, C-7, Sector-6, Panchkula.

Haryana – 134109, India.

Ph: 0172-5022416

Subject: Submission of Technical Bid for HOSTING OF SAP ERP ON GOVERNMENT COMMUNITY CLOUD AT PRIMARY (DC) & SECONDARY (DR) SITE

We, the undersigned bidder, having read and examined in detail the specifications and the NIT in respect of the Scope of Work do hereby propose to provide services as specified in the NIT. We also declare that:

1. The prices mentioned in our Bid are in accordance with the terms as specified in NIT. The prices and other terms and conditions of this Bid are valid for the period of 120 days from the date of opening of financial bid.
2. We declare that all the services/works shall be performed strictly in accordance with the NIT No. _____ dated [date].
3. We declare that our bid prices are for the entire scope of the work as specified in the RFP. These prices have been submitted in the Financial Bid.
4. We further declare that the prices stated in our Bid are in accordance with NIT & will not be subject to escalation for any reason whatsoever within the period of project. A Bid submitted with an adjustable price quotation or conditional Bid may be rejected as non-responsive.
5. Our Proposal is binding upon us and subject to the modifications resulting from contract negotiations

This is to further certify that all the information contained in the Bid is to the best of our knowledge and the bids submitted are completely unconditional.

Thanking you,

Yours faithfully,
(Signature)

Name of Authority Signatory:

Designation& Seal

Date:

Place:

Business Address:

.

Annexure-A.2**Technical Bid Format**

Please ensure that every requirement has been answered in the technical bid submission format. Failure to do so might lead to a rejection of the bid. The technical bids submitted shall cover the following sections:

Sr. No	Section	Instruction for Response
1	Company Profile	Describe about yourself and your experience in the relevant field.
2	Meeting the Eligibility criteria.	Attach all the requisite Documents in meeting the eligibility criteria.
3	Delivery Plan	Share a Detailed Delivery Plan in meeting the timely delivery of scope of work.
4	Documentation	Technical Solution document explaining complete proposed solution along with technical specifications of every component.

Annexure-A.3

Indicative Project Timelines

Deliverable	Timeline (Calendar Days)
Issue of Work Order	To
Submission of Detailed project plan, Technical solution, DC-DR Architecture, resource mobilization and submission of bank guarantee for security deposit.	$T_0 + 5 \text{ days} = T_1$
Readiness of DC infrastructure (servers, storage, network, backup etc.) to start Migration activity of Complete SAP ERP system, servers, storage, network, backup etc.	$T_1 + 10 \text{ days} = T_2$
Completion of Migration activity of Complete SAP ERP system to DC infrastructure (servers, storage, network, backup etc.) & handover to ERP Team.	$T_2 + 20 \text{ days} = T_3$
Setting up of replication link between DC & DR site & DR site readiness in all respects & handover to ERP Team.	$T_3 + 10 \text{ days} = X^*$

*** X is treated as date for Go Live & Commencement of O&M Period of DC/DR**

Annexure-A.4**HPGCL Sites**

Following are the site locations for HPGCL:

Sr.No.	Name of Plant/Office & its Location	Location
1	Panipat Thermal Power Station	Panipat
2	RGTPP Khedar,	Hisar
3	DCRTPP Yamunanagar	Yamunanagar
4	WYC Hydrel, Bhudkalan,	Yamunanagar
5	Corporate Office	Panchkula

Annexure-A.5

Hardware Sizing for HPGCL - DC

Module	%Distribution over multiple servers	vCPU Count	RAM (GB)	Minimum Internal Disk (GB) - OS & SWAP	SAP application Disk (GB)	Disk (GB) - Database	Remark
Development Landscape							
SAP ERP System (incl. E-rec, E-learn, FLM, IS-UT)		8	32	218	325	711	
SAP BW system (Incl. BPC)		7	30	210	130	662	
SAP BOBJ		4	15	74	85	220	
ECC SAP NetWeaver Portal		8	7	200	163	480	
SRM SAP NetWeaver Portal		4	31	200	134	466	
SAP Process Orchestration		4	19	144	55	386	
SAP MII Development		4	24	146		100	
SAP SRM Development		4	49	130	130	662	
SAP EHSM Development		4	16	146		50	
SAP TREX Development		4	3	171	198		
SAP Content Server		4	15	89		586	
SAP Solution Manager		4	31	172	85	798	
SAP Router		4	15	186	99		
Quality Landscape							
SAP ERP System (incl. E-rec, E-learn, FLM, IS-UT)		4	42	255	292	1080	Equivalent Disk space in case of Production refresh
SAP BW system (Incl. BPC)		4	29	225	110	919	
SAP BOBJ		4	23	114	84	419	
SAP NetWeaver Portal (Internal)		6	19	256	100	480	
SAP NetWeaver Portal (External)		6	19	256	100	480	
SAP Process Orchestration		4	22	200	54	450	
SAP MII Quality		6	27	146		100	
SAP SRM Quality		4	48	255	155	657	
SAP EHSM Quality		4	22	146		50	
SAP TREX Quality		4	10	255	198	158	
SAP Content Server		4	23	156	24	513	
Production Landscape							
SAP ERP System (incl. E-rec, E-learn, FLM, IS-UT)							
Database Instance	30%	16	88	146	14	900	ASCS/DB Cluster with Multiple Application Servers
Application Central Instance	30%	20	67	103	54		
Application Server 1	70%	22	79	264	152		
Application Server 2		22	79	264	103		
WWI Server for EHS Reports		6	27	146		100	2 server for load and HA
Expert Server for EHS Substance Data calculation		6	27	146		100	2 server for load and HA

SAP Enterprise Portal System (incl. ESS/MSS)							
Database Instance	20%	8	22	120	20	463	ASCS/DB Cluster with Multiple Application Servers
Application Central Instance	20%	8	22	150	19		
Application Servers	80%	8	58	146	100		
SAP Enterprise Portal System (incl. E-Rec, SRM)							
Database Instance	20%	6	15	126	19	350	ASCS/DB Cluster with Multiple Application Servers
Application Central Instance	20%	6	15	135	19		
Application Servers	80%	6	61	236	112		
SAP Business Warehouse System (incl. BPC)							
Database Instance	40%	24	27	160	54	1754	ASCS/DB Cluster with Multiple Application Servers
Application Central Instance	40%	10	14	135	25		
Application Servers	60%	10	20	184	151		
SAP Business Objects							
Database Tier	23%		45	146		200	Multi-node cluster/ DB in Active Passive cluster
Intelligence Tier	27%		51	146		100	
Processing Tier	33%		64	146		100	
Web Tier	17%		32	146		100	
SAP Process Orchestration System							
Database Instance and Application Central Instance		10	29	122	54	540	ASCS/DB Cluster with Multiple Application Servers 350 messages P/D. Core based license.
SAP MII Production							
MI Server		10	51	146		100	Per Plant basis
SAP SRM System							
Database Instance	30%	8	20	125	19	464	ASCS/DB Cluster with Multiple Application Servers
Application Central Instance	30%	8	20	135	19		
Application Servers	70%	14	47	205	64		
SAP Content Server							
Content Server		10	51	146		100	Active-Passive Cluster
SAP Solution Manager			31	172		798	With Basic Configuration
DR as a Service							

Storage and Backup Services							
Storage					12 TB		
Backup Services					12 LS		
Internet & P2P Links							
Internet Link					20 MBPS		
P2P / Replication Links					50 MBPS		
Public IP					8 Nos.		
Any other equipment or services							
DR Drill					2		
VA					4		

Additional Components							
Server 1 — Database Server		8	64	2500			Oracle Linux (Open Source) or Windows Server 2022
Server 2 — Application Server		16	64	1000	GPU: PCIe x16 slot reserved — NVIDIA RTX 4070 Ti Super 16 GB or RTX 4090 24 GB –Upgradable slot reserved in Case future Req.		Ubuntu 22.04.4 LTS – 64 bit or Windows Server 2022
Server 3 — Report Server		4	16	300			Windows Server 2022

1. External SAN storage is required with a capacity calculated for Production Environment
2. Disk space for Quality and Development system can be Disks mounted on servers or DAS or anything else with minimum RAID 5 level configuration
3. Redundancy at each hardware level should be considered as adequate to avoid any SPOF
4. Please consider additional applicable software for application HA Cluster

Annexure-A.6

Certificate Regarding no Deviations
(On letter head of the Bidder)

Bid Reference No.:

To:

Haryana Power Generation Corporation Limited

Room No. 307, Urja Bhawan, C-7, Sector-6, Panchkula.

Haryana – 134109, India.

Ph: 0172-5022416

Subject: e-Tender for engaging the services of agency for hosting of SAP ERP on Government Community Cloud at Primary (DC) and Secondary (DR) Site.

Dear Sir,

We hereby certify that we have gone through all terms and conditions of your e-TENDER No. dated and confirm that the bid submitted by us is in total compliance of the terms of bid documents and no deviations whatsoever are incorporated in our bid.

We further undertake that the entire work shall be performed as per the terms of the above bid documents.

Date:

Place:

Yours faithfully,

(Signature)

Name of Authority Signatory:
Designation & Seal

Price Bid Format for 5 Years O&M Charges

Haryana Power Generation Corporation Limited (HPGCL)
<u>BILL OF QUANTITY</u>

Name of the Bidder:	
GST Registration No.:	

ENGAGING THE SERVICES OF AGENCY FOR HOSTING OF SAP ERP ON GOVERNMENT COMMUNITY CLOUD AT PRIMARY (DC) & SECONDARY (DR) SITE

To be filled by Cloud Service Provider

Sl. No.	Cloud Services	Unit of Measurement	Config of Each VM			Total Qty - on Cloud	Unit Rate (In Rs.) (excluding GST)	Total Price (In Rs.) (Excluding GST)	GST (%)	Total GST (Amt in Rs.)	Monthly Total Price (In Rs.) (Including GST)	Year 1 Total Price (In Rs.) (Including GST)	Year 2 Total Price (In Rs.) (Including GST)	Year 3 Total Price (In Rs.) (Including GST)	Year 4 Total Price (In Rs.) (Including GST)	Year 5 Total Price (In Rs.) (Including GST)	Grand total for 5 years (In Rs.) (Including GST)
			vCPU	vRAM (GB)	Internal Disk (GB) - OS & SWAP												
1	2	3				4	5	6=4 X 5	7	8	9	10	11	12	13	14	15=10+11+12+13+14

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1 Development Servers on Cloud																	
	SAP ERP System (incl. E-rec,E-learn, FLM,IS-UT)	No.															
	SAP BW system (Incl. BPC)	No.															
	SAP BOBJ	No.															
	ECC SAP NetWeaver Portal	No.															
	SRM SAP NetWeaver Portal	No.															
	SAP Process Orchestration	No.															
	SAP MII Development	No.															
	SAP SRM Development	No.															
	SAP EHSM Development	No.															
	SAP TREX Development	No.															
	SAP Content Server	No.															
	Solution Manager	No.															
	SAP Router	No.															
2 Quality Servers on Cloud																	
	SAP ERP System (incl. E-rec,E-learn, FLM,IS-UT)	No.															
	SAP BW system (Incl. BPC)	No.															

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	SAP BOBJ	No.															
	SAP NetWeaver Portal (Internal)	No.															
	SAP NetWeaver Portal (External)	No.															
	SAP Process Orchestration	No.															
	SAP MII Quality	No.															
	SAP SRM Quality	No.															
	SAP EHSM Quality	No.															
	SAP TREX Quality	No.															
	SAP Content Server	No.															
3	Production Servers on Cloud																
	SAP ERP System (incl. IS-UT,E-Rec, E-Learn, FLM)																
	Database Instance	No.															
	Application Central Instance	No.															
	Application Server1	No.															
	Application Server2	No.															
	WWI Server for EHS Reports	No.															
	Expert Server for EHS Substance Data calculation	No.															
	SAP Enterprise Portal System (Incl ESS/MSS)																
	Database Instance	No.															

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	Application Central Instance	No.															
	Application Servers	No.															
	SAP Enterprise Portal System - (incl. E-Rec, SRM)																
	Database Instance	No.															
	Application Central Instance	No.															
	Application Servers	No.															
	SAP Business Warehouse System (incl. BPC)																
	Database Instance	No.															
	Application Central Instance	No.															
	Application Servers	No.															
	SAP Business Objects																
	Database Tier	No.															
	Intelligence Tier	No.															
	Processing Tier	No.															
	Web Tier	No.															
	SAP Process Orchestration System																
	Database Instance	No.															
	Application Central Instance	No.															
	SAP MII Production																
	MII Server	No.															
	SAP SRM System																
	Database Instance	No.															

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	Application Central Instance	No.															
	Application Servers	No.															
	SAP Content Server																
	Database Instance	No.															
	SAP Solution Manager	No.															
	Storage and Backup Services																
	Storage	TB															
	Backup Services	LS															
	Internet & P2P Links																
	Internet Link	MBPS															
	P2P / Replication Links	MBPS															
	Public IP	No.															
	DR as a Service																
4	Other Services																
	DR Drill	No.															
	VA	No.															
	Any other service/equipment																
5	Storage and Backup Services																
	Storage	TB															
	Backup Services	LS															
6	Internet & P2P Links																
	Internet Link	Mbps															
	P2P / Replication Links	Mbps															

HPGCL – Appointment of agency for Hosting SAP ERP on Government Community Cloud

	Public IP	No.															
7	Additional Components																
	Server 1 — Database Server	No.															
	Server 2 — Application Server	No.															
	Server 3 — Report Server	No.															

Any item/ material either hardware or software required to meet the cloud solution and functionality specified in the tender document whose related component is missing in the above table has to be accounted by the Bidder and the price of the same is assumed to be reflected and taken care in the price specified to the HPGCL by the Bidder in this commercial bid.