



**Nepal Electricity Authority**  
(A Government of Nepal Undertaking)  
**Finance Directorate**  
**INSTITUTIONAL STRENGTHENING PROJECT**

Ref. No: 2078/79/ - 83

Date: Friday, 27 May 2022

To:  
All prospective bidders,

**Subject: Issuance of Addendum-4**

**OCB No. and Title:** ICB/FD/EGMPAF/RMS-078/79-02 Procurement of Information Technology Products and Services "Supply and Installation of Revenue Management System (RMS)"

**Project Title:** Electricity Grid Modernization Project - Additional Financing

Dear Sir/Madam,

With reference to the bid published on 18 February 2022, we would like to inform all our prospective bidders about the issuance of Addendum-4 according to the ITB clause 8.2 of the bidding document.

Kindly acknowledge the receipt of the same at the project office.

Best regards,

*Chandha Neupane*

Chandha Neupane,  
(Project Director)



**Nepal Electricity Authority**  
(A Government of Nepal Undertaking)  
**Finance Directorate**  
**INSTITUTIONAL STRENGTHENING PROJECT**

**OCB No. and Title:** ICB/FD/EGMPAF/RMS-078/79-02 Procurement of Information Technology Products and Services "Supply and Installation of Revenue Management System (RMS)"

**Project Title:** Electricity Grid Modernization Project - Additional Financing

Pursuant to ITB Clause number 8 addendum -4 has been issued. All the bidders are requested to collect the hard copy of addendum -4 from project office. This addendum -4 shall be a part of bidding document and failure to collect the same shall be at the risk of the bidder. Addendum -4 consists of:

- a) Section -6: Schedule of Requirements
- b) Section 2: Bid Data Sheet

**Addendum -4**  
**Friday, 27 May 2022**

S/N	RFP Reference	Existing Clause	Revised Clause
1.	Vol-II, Page 6-211, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	8. The proposed solution should support Hybrid and All Flash Nodes in the same cluster. Proposed SSD should be used for both storing Data and Caching. (If OEM uses SSD/NVMe dedicatedly for caching then additional SSD should be proposed). It should be possible to Pin IOPS hungry VMs on SSD only	8. The proposed solution should support Hybrid only or All Flash only Nodes in the same cluster. Proposed SSD should be used for both storing Data and Caching. (If OEM uses SSD/NVMe dedicatedly for caching then additional SSD should be proposed). It should be possible to Pin IOPS hungry VMs on SSD only
2.	Vol-II, Page 6-220, 3.2.2.1.2 Internet Next Generation Firewall	6. The proposed OS must Resided on flash disk for reliability over hard disk and Allow dual booting.	Clause removed
3.	Vol-II, Page 6-220, 3.2.2.1.2 Internet Next Generation Firewall	23. Firewall appliance should have at least 16 x 1GE RJ45 interface, 8 x 1GE SFP slot 4 x 10G SFP+ slot, 4x25GE SFP28/10GE SFP+ and 2x40 GE QSFP+.	23. Firewall appliance should have at least 16 x 1GE RJ45 interface, 8 x 1GE SFP slot 4 x 10G SFP+ slot, 8 x 10GE SFP+ and scalable to additional 2x40 GE QSFP+ in future with in the same appliance.
4.	Vol-II, Page 6-221, 3.2.2.1.2 Internet Next Generation Firewall	The proposed system should support 37. b) PPTP VPN 38. c) L2TP VPN	Clause removed
5.	Vol-II, Page 6-221, 3.2.2.1.2 Internet Next Generation Firewall	51. The system shall support IPSEC site-to-site VPN and remote user VPN in transparent mode.	Clause removed
6.	Vol-II, Page 6-251, 3.2.3.1.6 Firewall	3.The Firewall should be ICSA/NSS Labs Certified	3. The Firewall should be ICSA/NSS Labs Certified or equivalent.
7.	Vol-II, Page 6-252, 3.2.3.1.6 Firewall	The proposed system should support 17. b) PPTP VPN 18. c) L2TP VPN	Clause removed
8.	Vol-II, Page 6-224, 3.2.2.1.3 Internet Intrusion Prevention System	2. The device should be from a family of products that attains ICSA Labs Certifications for IPS.	2. The device should be from a family of products that attains ICSA Labs Certifications or Equivalent for IPS.
9.	Vol-II, Page 6-224, 3.2.2.1.3 Internet Intrusion Prevention System	5. The proposed OS must Resided on flash disk for reliability over hard disk and Allow dual booting.	Clause removed

S/N	RFP Reference	Existing Clause	Revised Clause
10.	Vol-II, Page 6-224, 3.2.2.1.3 Internet Intrusion Prevention System	22. Hardware appliance should have at least 16 x 1GE RJ45 interface, 8 x 1GE SFP slot, 12x25GE SFP28/10GE SFP+ and 4x40 GE QSFP+.	22. Hardware appliance should have at least 16 x 1GE RJ45 interface, 8 x 1GE SFP slot 4 x 10G SFP+ slot, 8 x 10GE SFP+ and scalable to additional 2x40 GE QSFP+ in future with in the same appliance.
11.	Vol-II, Page 6-225, 3.2.2.1.3 Internet Intrusion Prevention System	46. Uses a combination of incremental and periodic synchronization to make sure that the configuration of all cluster units is synchronized to that of the primary unit	Clause removed
12.	Vol-II, Page 6-226, 3.2.2.1.3 Internet Intrusion Prevention System	53. Supports widely separated cluster units installed in different physical locations	Clause removed
13.	Vol-II, Page 6-251, CCC 3.2.3.1.5 Switch	21. The switch shall be configured from OEM Firewall which will work as switch controller	Clause removed
14.	Vol-II, Page 6-210, 3.2.2.1.1 Hyper Converged Infrastructure, Software Defined Network and Cloud Orchestrator	Reports to be included 7. Proposed OEM should be a brand listed once or more than once in the Latest Gartner's magic quadrant's leaders, Visionaries and Challengers Quadrant (2019, 2020, 2021) for Hyperconverged Infrastructure.	Clause removed
15.	Vol-II, Page 6-212, 3.2.2.1.1 Hyper Converged Infrastructure, Software Defined Network and Cloud Orchestrator	11. HCI solution should have license for three way DR for active-active configuration on MetroCluster, near sync, async replication with defined RPO, some of VM's are working from Primary (Site-A) and their DR at DR sites (Site-B) and Some of the VM's are working from Site-B and their DR's is at Site-A. It should have feature to change VM IP's on the fly without manual intervention in case the DR site has different subnet from DC Site. The Replication software should provide DR Orchestration and should be able to do VM power up sequencing. License should be provided for unlimited VMs	11. HCI solution should have license for three way DR for active-active configuration with near sync, async replication with defined RPO, some of VM's are working from Primary (Site-A) and their DR at DR sites (Site-B) and Some of the VM's are working from Site-B and their DR's is at Site-A. It should have feature to change VM IP's on the fly without manual intervention in case the DR site has different subnet from DC Site. The Replication software should provide DR Orchestration and should be able to do VM power up sequencing. License should be provided for unlimited VMs
16.	Vol-II Page 6-211 Hyper Converged Solution Requirements	8. The solution should provide enterprise data services such as deduplication, encryption & compression without dependence on any proprietary hardware. This should be delivered in both all flash as well as hybrid solution. These functionalities should be part of the proposed solution and licensed. The proposed HCI solution should be able to create multiple logical unit (LUN's) for storage with multiple policy for deduplication and compression across storage logical unit. The Proposed HCI solution should support Erasure Coding for archival data storage.	8. The solution should provide enterprise data services such as deduplication, encryption & compression without dependence on any proprietary hardware. This should be delivered in all flash or as hybrid solution. These functionalities should be part of the proposed solution and licensed. The proposed HCI solution should be able to create multiple logical unit (LUN's) for storage with multiple policy for deduplication and compression across storage logical unit. The Proposed HCI solution should support Erasure Coding for archival data storage.
17.	Volume II, 6-221, 3.2.2.1.2 Internet Next Generation Firewall	32. The Firewall solution should support NAT64, DNS64 & DHCPv6	32. The Firewall solution should support NAT64 and DNS64
18.	Volume II, 6-228, 3.2.2.1.5 Anti-DDoS	4. The proposed solution should have the capability to be configured in detect as well as protect mode. The proposed appliance should be hyperconverged network function appliance should have capability to install CentOS/ Ubuntu	4. The proposed solution should have the capability to be configured in detect as well as protect mode. The proposed appliance should be hyperconverged network function appliance should have capability to install CentOS, Ubuntu or other open source virtual network

S/N	RFP Reference	Existing Clause	Revised Clause
		and other open source virtual network functions and have adequate resources to ensure complete DDoS protection	functions and have adequate resources to ensure complete DDoS protection
19.	Volume II , 6-233, 3.2.2.1.17 Antivirus Solution for Servers	65. Should perform Boot & Rootkit scan and cleaning, Endpoint security solution should have capability of AV, Zero day threat protection, Vulnerability protection, HIPS, Firewall, Device control, virtual Patching and integrated DLP with pre and post machine learning execution for malware analysis.	65. Should perform Boot & Rootkit scan and cleaning, Endpoint security solution should have capability of AV, Zero day threat protection, Vulnerability protection, Firewall, Device control, virtual Patching and integrated DLP with pre and post machine learning execution for malware analysis
20.	Volume II, 6-252, 3.2.3.1.6 Firewall	10. The Firewall solution should support dynamic NAT, PAT, NAT46, NAT64, DNS64 & DHCPv6	10. The Firewall solution should support dynamic NAT, PAT, NAT46, NAT64 & DNS64.
21.	Volume II, Page 6-211, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	8. The HCI solution should include Hypervisor License and should support minimum 2 of the industry leading hypervisors.	8. The HCI solution should include Hypervisor License and should support at least one of the industry leading hypervisors.
22.	Volume II, Page 6-211, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	9. Proposed solution shall support 150 nodes in a same cluster without any federation.	9 The Proposed Solution shall support minimum 32 nodes in a same cluster without any federation.
23.	Volume II, Page 6-212, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	11. HCI solution should support unlimited VM's snapshot at storage level, it should not impact guest OS performance during snapshot.	11. HCI solution should support VM's snapshot at storage level, it should not impact guest OS performance during snapshot. Each VM should provide minimum 30 VM snapshots.
24.	Volume II, Page 6-211, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	8. It should be possible to use different storage policies in the storage LUNs/Container with Storage QoS	8. It should be possible to use different storage policies on VMs and container level with Storage QoS.
25.	Volume II, Page 6-211, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	9. The solution should be able to scale by support of adding additional nodes to the cluster at a later point of time to handle compute, Memory & Storage requirements. Solution should support cluster expansion with zero down time. The proposed solution should support hybrid and all flash nodes in same cluster for future scalability. HCI solution must have capability to support HCI nodes with different models, different CPU Generations & Memory, Disks configurations in the same cluster without any impact on enterpriseclass storage services/functionality	9. The solution should be able to scale by support of adding additional nodes to the cluster at a later point of time to handle compute, Memory & Storage requirements. Solution should support cluster expansion with zero down time. The proposed solution should support hybrid or all flash nodes in same cluster for future scalability. HCI solution must have capability to support HCI nodes with different models, different CPU Generations & Memory, Disks configurations in the same cluster without any impact on enterpriseclass storage services/functionality.
26.	Volume II, Page 6-212, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	11. HCI solution should support crash consistent and application consistent backup within cluster	11. HCI solution should support crash consistent and application consistent backup within cluster or for the proposed HCI Solution
27.	Volume-II, Page 6-214, 3.2.2.1.1 Hyperconverged Infrastructure,	13. HCI solution should support automated and zero touch upgrades from single management pane/console for hardware/storage/hypervisor with no major impact on production	13. HCI solution should support automated and zero touch upgrades for hardware/storage/hypervisor with no major impact on production

S/N	RFP Reference	Existing Clause	Revised Clause
	Software Defined Network and Cloud Orchestrator		
28.	Volume-II, Page 6-213, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	12.Hypervisor should have integrated snapshot-based backup, schedule backup/restore and configure multiple copies of backup on periodic interval	12. Bidder should provide integrated snapshot-based backup, schedule backup/restore and configure multiple copies of backup on periodic interval either inbuilt with hypervisor or 3rd party solution.
29.	Volume-II, Page 6-213, 3.2.2.1.1 Hyperconverged Infrastructure, Software Defined Network and Cloud Orchestrator	12. Hypervisor should support UEFI bios along with legacy BIOS for supported virtual guests OS	12. Hypervisor should support UEFI bios for supported virtual guests OS.
30.	Section 2: Bid Data Sheet ITB 24.1	<b>The deadline for bid submission is:</b> Date: Wednesday, 1 June 2022 Time: 14:00 hours Local Time	<b>The deadline for bid submission is:</b> Date: Monday, 13 June 2022 Time: 14:00 hours Local Time
31.	Section 2: Bid Data Sheet ITB 27.1	<b>The technical bid opening shall take place at:</b> Date: Wednesday, 1 June 2022 Time: 14:30 hours Local Time	<b>The technical bid opening shall take place at:</b> Date: Monday, 13 June 2022 Time: 14:30 hours Local Time

The amendments/clarifications/Addendum issued in this document shall be treated as a part of Bid Document from here and after and shall be read with the original Bid document and subsequently issued corrigendum documents.

Note: All the relevant documents/declarations/certificates etc., which are required to be submitted along with the proposal shall be submitted in the required formats, wherever applicable as mentioned in the Bid Document.

For further details, please contact:

Project Director,  
Institutional Strengthening Project,  
Finance Directorate,  
Nepal Electricity Authority,  
Durbar Marg, Kathmandu, Nepal  
Telephone: +977-1-4153201/ 4153310  
E-mail: [ispnea@gmail.com](mailto:ispnea@gmail.com)