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Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St. / 11, rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5
Bid Fax: (819) 997-9776

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Industrial Vehicles & Machinery Products Division
11 Laurier St./11, rue Laurier
7B1, Place du Portage, Phase III
Gatineau
Québec
K1A 0S5

Title - Sujet CHER- RFI	
Solicitation No. - N° de l'invitation W8476-185840/A	**Amendment No. - N° modif.** 011
Client Reference No. - N° de référence du client W8476-185840	**Date** 2020-01-16
GETS Reference No. - N° de référence de SEAG PW-$$HS-634-74903	
File No. - N° de dossier hs651.W8476-185840	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2020-03-30**	**Time Zone** **Fuseau horaire** Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes **Plant-Usine:** ☐ **Destination:** ☐ **Other-Autre:** ☑	
Address Enquiries to: - Adresser toutes questions à: Veronica Vallejo	**Buyer Id - Id de l'acheteur** hs651
Telephone No. - N° de téléphone (613) 297-3978 ( )	**FAX No. - N° de FAX** ( ) -
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:**	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	**Delivery Offered - Livraison proposée**
Vendor/Firm Name and Address **Raison sociale et adresse du fournisseur/de l'entrepreneur** **Telephone No. - N° de téléphone** **Facsimile No. - N° de télécopieur**	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) **Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)** **Signature** **Date**	

Amendment 011

This amendment is raised to provide industry with an update to the CHER project, to provide CHER project responses to the questions received from industry, and to provide further questions to industry to assist the project in refining the requirements.

1. Summary of progress

The CHER project has received project approval and is now in the definition phase.

The CHER project has refined its equipment sizing requirements for forklifts based on operational requirements. The rough terrain forklift (RTFL) equipment sizing is shown below in Table 1.

	Rated Load Capacity (kg)	Load Centre Distance (m)
RTFL-H	16,000	1.2
RTFL-M	10,000	1.2
RTFL-L	2,700	0.6
RTFL-T	5,000	0.6

Table 1 – RTFL Load Capacities

The project has refined its simulator requirement after feedback on what simulators were available in industry. The CHER simulators will be required to simulate the following equipment: dozer, loader, grader, excavator, backhoe, and mobile crane. The project is still considering whether simulation of medium forklifts will be required as a costed option. The project intends to procure a combination of ‘motion simulators’ and ‘portable simulators’ under one contract. ‘Motion simulators’ would have motion platforms to provide motion feedback to an operator. ‘Portable simulators’ would be compact, lightweight, and easy to transport; they would not be expected to provide motion feedback.

In Amendment 004 questions 31 and 45, the answers provided by the project indicated that the simulators and their containerized housing ‘system’ would be highly mobile (e.g. in a 20 ft. ISO container) and could be transported over rough washboard roads. Since that time, the project has refined its simulator housing requirements after feedback on the expected usage profile of the equipment. The project now intends to house CHER simulators in one or several mobile office containers that would be semi-permanently installed at several Canadian Forces Bases and rarely if ever moved. However, ‘portable simulators’ would be expected to be transported—by aircraft or land vehicle—in purpose-built transport cases.

As before, simulators are intended for use by new operators and operators who have experienced skill fade due to time away from equipment. The project is currently investigating to what extent the simulated vehicles will need to replicate the CHER equipment (versus generic versions of the vehicle platforms), particularly as it relates to intellectual property and estimated development costs.

The project has refined its lowbed trailer requirement. The CHER project is working with the Logistics Vehicle Modernization (LVM) project to standardize the requirement for lowbed trailers. If successful, CHER will acquire lowbed trailers through LVM.

The project has refined its requirement for the beavertail trailer, formerly known as the tilt/beavertail trailer. Based on analysis of the operational requirement, the tilt function will no longer be required.

The project has refined its equipment sizing requirements for cranes. Information relevant to the revised crane size is shown below in Table 2.

Minimum rated highway speed (under own power)	80 km / h	
Lift Capacity	Radius (m)	Capacity (kg)
	3	38,000
	10	15,000
	18	6,000
	30	2,400
	36	1,300
Must be certified to CSA Z150		

Table 2 – CHER Crane sizing

The In-Service Support (ISS) concept for CHER equipment is being developed in accordance with the Sustainment Initiative principles of Equipment Performance, Flexibility, Value for Money, and Economic Benefits. Industry is cautioned to measure their expectations of the scope of the resulting ISS contracts that will be awarded at the time of acquisition. The level of support and scope of contracted services will vary by equipment fleet depending on the availability of internal sustainment capabilities and anticipated usage of the equipment. ISS exists on a spectrum between pay-by-the-use contractor led support and pay-by-the-task user led support. The CHER ISS concept is predominantly landing on the task-based side of the spectrum. Further details on the scope and duration of the ISS frameworks will be provided as they are developed.

The CHER Request for Information (RFI) closing date was recently amended to 30 March. This extension is intended to maintain an official communications channel with industry until spring 2020 when the CHER team will start releasing draft Request for Proposal (RFP) documents.

The project will issue 8 separate RFI on Buy and Sell, one for each Bundle. The project will release draft RFP documents in stages, posting them as amendments to the RFI. Industry will be invited to provide comments of the draft RFP documents as they are posted. Throughout the draft RFP process, the project may seek additional information from Industry and will answer questions posed by industry. At the end of the draft RFP process, the project will seek updated costing information from industry.

The CHER project has received many excellent responses to the RFI. Should companies wish to provide additional responses, they are always welcome.

2. Questions from industry with answers

Bundle 2 - Simulator Systems
Q1: We are assuming your budget cap is $500,000 for Bundle 2 – simulator systems.
A1: Such a budget cap was not released with the CHER RFI W8476-185840/A dated 2018-05-24 and its subsequent amendments. Formal industry engagement RFIs are the only official source for CHER budget information.

All bundles
Q2: How many operators would need to be seated in the operator cabin?

A2: All vehicles, except the dump truck and crane, must seat one operator in the cabin. The dump truck must seat two operators in the cabin. The crane must seat two operators in the driver's cabin and one operator in the operator's cabin.

Q3: What is a fleet? What is a bundle?
A3: A fleet is a group of equipment of a certain type and size. CHER's scope covers eighteen fleets: dozer, grader, excavator, compactor, back-hoe, loader, simulator systems, rough-terrain container handler (RTCH), high-speed armoured back-hoe (HSAB), dump truck, dump box, rough-terrain forklift (RTFL) (heavy), RTFL (medium), RTFL (light), RTFL (telehandler), low-bed trailer, beavertail trailer, and crane.

A bundle is one or several fleets that will be acquired under one contract. Figure 1 shows the CHER bundling concept, as released in Amendment 006 to this RFI.

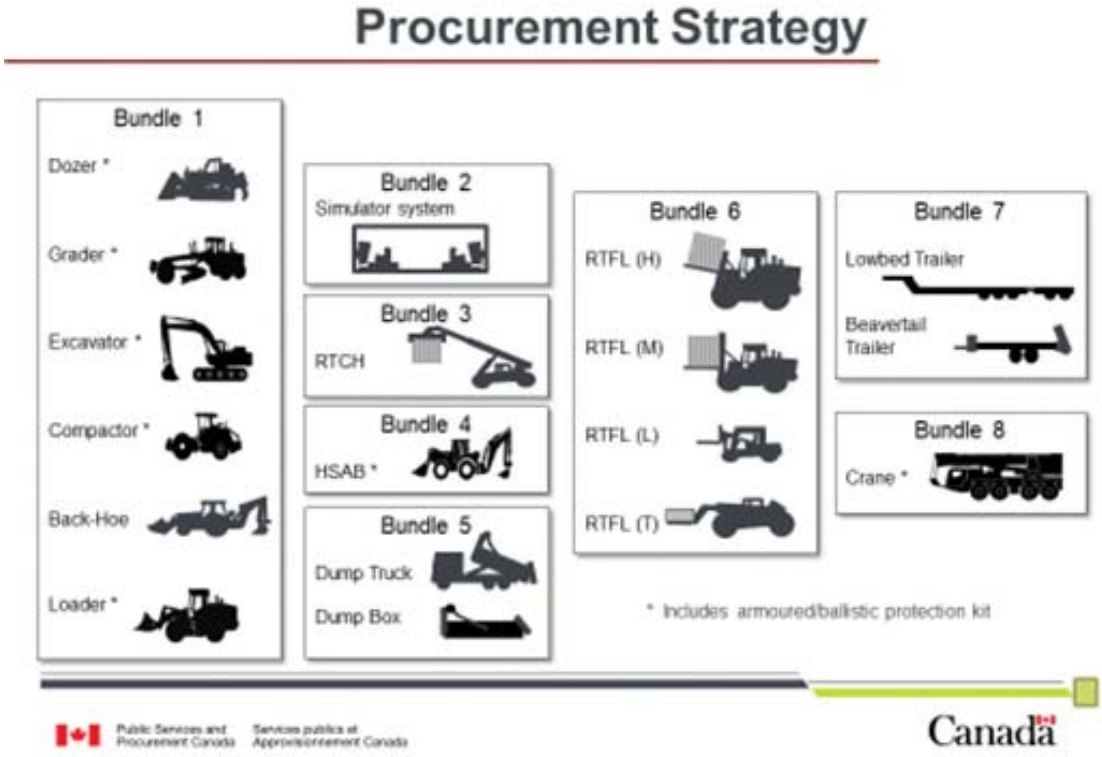

Figure 1 – CHER Bundling concept with updated Bundle 7 and 8 images.

Q4: Will CHER consider a mixed fleet for the armoured vehicles?
A4: Each vehicle fleet must be the same make and model. For example, all dozers must be the same make and model. All cranes must be the same make and model.
Within a bundle, it is acceptable if different fleets come from different Original Equipment Manufacturers.

Armour
Q5: For the vehicles with armour, will the vehicle need to be armoured or just the operator cabin?

A5: It is mandatory that the operator cabin be armoured. We invite suppliers to advise on other cost-effective means to provide protection on critical components of the vehicles, should Canada wish to consider this as an option in the future. We also invite suppliers to advise on the effects of armour on the vehicle performances as well as possible mitigation measures to prevent or reduce performance degradation.

Q6: Can you provide information on the removability of the armour on the vehicles?
A6: The armour protection system must be modular so that it can be installed and uninstalled on the fleet of vehicles being acquired. For example, the dozer armour protection system must install and uninstall on any of the dozers being acquired. The time required to install and uninstall the armour protection system is important and will be specified. Details will be provided in the draft RFP.

Q7: Would the non-armoured vehicles require the same level of military modification? For example, blackout lighting, NATO slave receptacles, lifting and tiedown provisions, etc.?
A7: All vehicles will require some level of military modifications. Details will be provided in the draft RFP.

Q8: Can you provide information as to when the armour testing and certification will be conducted?
A8: Armour testing will be conducted after contract award.

3. Questions to industry

All Bundles
Q1: What are the upper and lower temperature limits for the operation of the vehicles? What options could we add to improve these limits? Are there processes or practices the Canadian Army should consider in working at these limits with your equipment?

Q2: Can the vehicle be stored in extreme climatic environments, -50C or +70C, without adverse effects? What considerations should we be aware of with these climate extremes?

Bundle 1 – Heavy Construction Equipment
Q3: What impact would armouring the operator cabin have on the performance of the vehicle? What steps are taken to minimize the performance degradation? Please state the weight of the armour used to provide the feedback.

Q4: What impact would armouring the operator cabin have on the performance of the braking system? How are these issues addressed? Please state the weight of the armour used to provide the feedback.

Q5. How does armouring the operator cabin impact Roll Over Protective Structure (ROPS) and Falling Object Protective Structure (FOPS)?

Q6. What type of tires are recommended for off-road, mud and snow applications?

Q7. What operating parameters can normally be set by the operator?

Q8. What are the limitations of foam-filled tires?

Bundle 5 – Dump Box
Q9. What options are available to remotely operate the dump box on the dump truck?

Bundle 6 – Material Handling Equipment

Q10. What electromagnetic compatibility (EMC) standards do the vehicles comply with?

Q11. What are the advantages and disadvantages of articulating frame compared to straight frame?

Q12. Are there options for reversible engine cooling fans and are these recommended?

Bundle 8 – Crane

Q13. What impact would armouring the driver and operator cabin have on the performance of the vehicle? What steps are taken to minimize the performance degradation? Please state the weight of the armour used to provide the feedback.

Q14. What impact would armouring the driver and operator cabin have on the performance of the braking system? How are these issues addressed? Please state the weight of the armour used to provide the feedback.

Q15. How does armouring the driver and operator cabin impact Roll Over Protective Structure (ROPS) and Falling Object Protective Structure (FOPS)?

Q16. How does armouring the driver and operator cabin impact the emergency exit?

Q17. What are the limitations of foam filled tires?

Q18. What are the limitations of run-flat tires?

All other terms and conditions remain unchanged.