SC1A PO (Edn 10/22)

PURCHASE ORDER

Contract No: 705040451

Contract Name: Future Energy Trial – Hydrogen Fuels

Dated:21/12/2023

Supply the Deliverables described in the Schedule to this Purchase Order, subject to the attached MOD Terms and Conditions for Less Complex Requirements (up to the applicable procurement threshold).

Contractor	Quality Assurance Requirement (Clause 8)
Name: Geopura Ltd	
Registered Address: C/O Hobsons Alexandra Street Nottingham, United Kingdom NG5 1AY	

Consignor (if different from Contractor's registered address)	Transport Instructions (Clause 10)
Name: Geopura Ltd	Select method of transport of Deliverables
Registered Address: C/O Hobsons Alexandra Street Nottingham, United Kingdom	To be Delivered by the Contractor ⊠ In accordance with the Schedule of Requirement
NG5 1AY	To be Collected by the Authority
	Each consignment of the Deliverables shall be accompanied by a delivery note.

Progress Meetings (Clause 14)	Progress Reports (Clause 14)
The Contractor shall be required to attend the following meetings:	The Contractor is required to submit the following Reports:
Subject: Project Initiation Meeting	Subject: Monthly Progress Report.
Frequency: once within 5 working days of contract commencement.	Frequency: Monthly.
Location: Virtual hosted by the Supplier	Method of Delivery: Delivered virtually via email to project and commercial manager.
Subject: Monthly Progress Review Meeting (MPRM)	

Frequency: Monthly. The date for the initial MPRM will be agreed at the project initiation meeting and the dates for subsequent meetings agreed during each MPRM.	Delivery Address: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
Location: Virtual or in person depending on prior agreement between the Authority and the Supplier	
Obligation: The Supplier shall host, chair and issue minutes of a MPRM within five business days immediately following the meeting.	

Payment (Clause 15) Payment is to be enabled by CP&F.

Forms and Documentation	Supply of Hazardous Deliverables (Clause 9)
Forms can be obtained from the following websites:	A completed DEFFORM 68 (Hazardous and Non-Hazardous Substances, Mixture or
https://www.kid.mod.uk/maincontent/business/com	Articles
mercial/index.htm	Statement) and, if applicable, UK REACH
(Registration is required).	compliant Safety Data Sheet(s) (SDS) including
https://www.gov.uk/government/organisations/minis	any related information to be supplied in
try-of-defence/about/procurement	compliance with the Contractor's statutory duties under Clauses 9.b, and any
https://www.dstan.mod.uk/	information arising from the provisions of
(Registration is required).	Clause 9are to be provided by email with attachment(s) in Adobe PDF or MS WORD
The MOD Forms and Documentation referred to in	format to:
the Conditions are available free of charge from:	
	Hard copies to be sent to:
Ministry of Defence, Forms and Pubs Commodity	
Management	
PO Box 2, Building C16, C Site Lower Arncott	Hazardous Stores Information System (REDACTED FOR SECURITY
Bicester, OX25 1LP	
(Tel. 01869 256197 Fax: 01869 256824)	PUPROSES - OFFICIAL SENSITIVE)
	(2) Emails to be sent to:
Applications via email:	b. <u>DESTECH-QSEPEnv-</u>
Leidos-FormsPublications@teamleidos.mod.uk	HSISMulti@mod.gov.uk
If you require this document in a different format	SDS which are classified above OFFICIAL
(i.e. in a larger font) please contact the Authority's	including Explosive Hazard Data Sheets
Representative (Commercial Officer), detailed	(EHDS)
below.	for Ordnance, Munitions or Explosives (OME) are
	not to be sent to HSIS and must be held by the
	respective Authority Delivery Team

Contractor's Sensitive Information (Clause 5). Not to be published.

This list shall be agreed in consultation with the Authority and the Contractor and may be reviewed and amended by agreement. The Authority shall review the list before publication of any information. Description of Contractor's Sensitive Information: Cross reference to location of Sensitive Information: Explanation of Sensitivity: Details of potential harm resulting from disclosure: Period of Confidence (if Applicable): Contact Details for Transparency / Freedom of Information matters: Name: Position: Address: Telephone Number: E-mail Address:

Offer and Acceptance	
A) The Purchase Order constitutes an offer by the Contractor to supply the Deliverables. This	B) Acceptance
is open for acceptance by the Authority for 90	
days from the date of signature. By signing the Purchase Order the Contractor agrees to be	Name (Block Capitals):
bound by the attached Terms and Conditions	Name (Block Capitals).
for Less Complex Requirements (Up to the applicable procurement threshold).	(REDACTED FOR SECURITY PUPROSES -
applicable procurement intestibild).	OFFICIAL SENSITIVE)
Name (Block Capitals):	
	Position: Commercial Manager
(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)	For and on behalf of the Authority
FOR ROSES - OF HOLE SENSITIVE)	Authorised Signatory
Position:	(REDACTED FOR SECURITY PUPROSES -
For and on behalf of the Contractor	OFFICIAL SENSITIVE)
Authorized Signation	Date: 22/12/2023
Authorised Signatory	
(REDACTED FOR SECURITY	
PUPROSES - OFFICIAL SENSITIVE)	
Date:21.12.23	

				Contractor Deliv	verables				
Item	MOD	Part No.	Specification	Consignee	Packaging	Delivery Date			Price (£) Ex VAT
Number	Stock Reference No.	(where applicable)		Address Code (full address is detailed in DEFFORM 96)	Requirements inc. PPQ and DofQ (as detailed in DEFFORM 96)		Qty	Per Item	Total inc. packaging (and delivery if specified in Schedule 3 (Contract Data Sheet))
1	N/A		Implementation Plan in accordance with Phase 1 of the Project Phase Deliverables table within Annex A		N/A	10 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
2	N/A		Asset Delivery in accordance with Phase 1 of the Project Phase Deliverables table within Annex A		N/A	32 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
3	N/A		Training in accordance with Phase 1 of the Project Phase Deliverables table within Annex A		N/A	30 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
4	N/A		Report in accordance with Phase 1 of the Project Phase Deliverables table within Annex A		N/A	60 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
5	N/A		Maintenance & Support in accordance with Phase 2 of the Project Phase Deliverables table within Annex A		N/A	90 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
6	N/A		Report in accordance with Phase 2 of the Project Phase Deliverables table within Annex A		N/A	90 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES

							- OFFICIAL SENSITIVE)
7	N/A	Asset Removal in accordance with Phase 3 of the Project Phase Deliverables table within Annex A	N/A	114 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
8	N/A	Report in accordance with Phase 3 of the Project Phase Deliverables table within Annex A	N/A	114 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
10	N/A	Phase 1 Hydrogen cost for Air Products (Heathrow) in accordance with Phase 1 of the Project Phase Deliverables table within Annex A	N/A	60 days after contract start.	1	(REDACTE D FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)	(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
11	N/A	Phase 2 Hydrogen cost for Air Products (Heathrow) in accordance with Phase 2 of the Project Phase Deliverables table within Annex A	N/A	90 days after contract start.	1	(REDACTE D FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)	
12	N/A	Phase 3 Hydrogen cost for Air Products (Heathrow) in accordance with Phase 3 of the Project Phase Deliverables table within Annex A	N/A	114 days after contract start.	1	(REDACTE D FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)	
13	N/A	Phase 1 Hydrogen cost for HMNB Devonport in accordance with Phase 1 of the Project Phase Deliverables table within Annex A	N/A	60 days after contract start.	1	(REDACTE D FOR SECURITY PUPROSES	(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)

14	N/A	Phase 2 Hydrogen cost for HMNB Devonport in accordance with Phase 2 of the Project Phase Deliverables table within Annex A	N/A	90 days after contract start.	1	- OFFICIAL SENSITIVE) (REDACTE D FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)	
15	N/A	Phase 3 Hydrogen cost for HMNB Devonport in accordance with Phase 3 of the Project Phase Deliverables table within Annex A	N/A	114 days after contract start.	1	(REDACTE D FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)	
16	N/A	Phase 1 equipment rental cost for HMNB Devonport in accordance with Phase 1 of the Project Phase Deliverables table within Annex A	N/A	60 days after contract start.	1	,	(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
17	N/A	Phase 2 equipment rental for HMNB Devonport in accordance with Phase 2 of the Project Phase Deliverables table within Annex A	N/A	90 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
18	N/A	Phase 3 equipment rental for HMNB Devonport in accordance with Phase 3 of the Project Phase Deliverables table within Annex A	N/A	114 days after contract start.	1		(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
		· · ·			Total	Firm Price (ex VAT)	£33,540.00

Total inc LoL	£53,175.00

Annex A Statement of Requirements

for Contract No. 705040451

Statement of Requirement (SOR)

Cnt_705040451 - Future Energy Trial (Hydrogen Vehicles)

Project Summary

This project looks to trial hydrogen vehicles with associated hydrogen refuelling infrastructure (comprises of refuelling nozzle and hydrogen storage and appropriate software control system) to establish the MOD's approach to operating an alternative fuelled vehicle to Battery Electric Vehicles (BEV). The findings from this trial will support the Sustainable Road Transport (SRT) team's development of future requirements.

Project Background

In response to HM Government's British Energy Security Strategy¹ and MOD's Climate Change and Sustainability Strategic Approach², the SRT Team have been tasked to meet the HM Government target of 100% zero emissions at the tailpipe by Dec 2027 for the MOD white vehicle fleet³. This will increase the demands on the 'at risk' electrical infrastructure of MOD sites. The MOD White fleet is made up of commercially available cars and vans, effectively civilian pool cars and vans with no military modifications.

This trial would allow the MOD to gain experience in using hydrogen as an automotive fuel source; a solution that exists in the commercial marketplace. The scope of this trial will be limited to trialing the setup and operation of a portable hydrogen refueller, and hydrogen powered cars and vans⁴ across HMNB Devonport with options in the contract to expand the locations.

Compared to BEVs, hydrogen fuel cell vehicles offer faster refueling times (minutes compared to hours), increasing asset availability in addition to enabling greater range which increases vehicle capability. As more BEVs replace the existing MOD white fleet, there will be a widening of the mismatch between capacity and requirement and this trial seeks to cover that capability gap.

This trial requirement is in line with the Government net zero plan to end the sale of new petrol and diesel cars in the UK by 2030, which will put the UK on course to be the fastest G7 country to decarbonise cars and vans. There is a high likelihood for future requirements to install a number of hydrogen refuellers around the country when the MOD Phoenix III contract commences in 2026/27. This will look to support approx. 900 hydrogen vehicles throughout the UK subject to any changes in future requirements. This may require future consideration to hydrogen refuellers depending on the availability of public hydrogen refuellers, which is under constant review.

During Aug – Oct 22, the Authority conducted a Request for Information (RFI) to test market health. The returns from suppliers indicated that there were several solutions to meet this

¹ British Energy Security Strategy

² MOD's Climate Change and Sustainability Strategic Approach

³ 2021-22 Sustainability Reporting Guidance - Final.docx (publishing.service.gov.uk)

⁴ There may be opportunity to trial a hydrogen forklift truck. Discussions with Toyota and the DE&S Phoenix II project team are ongoing.

requirement. The Authority have chosen to use the "The Procurement Partnership Limited" Hydrogen DPS Framework as a route to market for this requirement.

The Trial site is Air Products Refueler (Heathrow), key fob and account only and Site 2 is HMNB Devonport which will be the equipment to operate as a refueler. Optional sites that could be used if the authority wanted to expand the trial to a 2^{nd} RAF TBC Site.

All vehicles (Toyota Mirai) will be provided by the Authority. This trial of a renewable fuel source has clear links to a future Estate Sustainability Strategy⁵ and the Sustainable Support Strategy⁶.

The technology and the fuel source used in the trial are new to the MOD. While the trial tests the use of hydrogen as a fuel and the operation of a hydrogen refueller, it also allows the MOD to understand the safety and siting considerations to aid any future potential introduction of a MOD Hydrogen refuelling network. Estimated fuel usage is approx. 35Kg per month per site. Due to the uncertainty of the amount of fuel required through the trial, fuel will be requested by the Authority via a call-off basis using a TAF (Tasking Approval Form) – we will pay for the actual weight of fuel used.

Project Requirement

The Authority seeks to increase the capability of the MOD fleet through a trial of innovative energy motive sources at up to two Defence sites. Depending on cost and site selection, the trial may only be one site, with an option to rise to 2 sites. The Authority would like to expand to site 2 and if decided to take this option would provide at least 2 week calendar days notification period of the proposed expansion.

The purpose of the trial is to gather learning on the use of the hydrogen refuellers to assess whether this presents a viable longer-term solution. The test vehicles will be up to 4 Toyota Mirai which require a 700 bar refuelling pressure (max. 2 cars per site) from Toyota, available to meet the ready date of the hydrogen refuellers. Applicable standards for vehicle hydrogen infrastructure apply, including, but not limited to:

- CP41 The design, construction, maintenance, and operation of filling stations dispensing gaseous fuels. Revision 2: 2018⁷
- Guidance on Hydrogen Delivery Systems for Refueling of Motor Vehicles, Co-Located with Petrol Fueling Stations (Supplement to the Blue Book) in Wiki
- EIGA Doc 100/20 Hydrogen Cylinders & Transport Vessels
- CGA Hydrogen Standards Map⁸
- EIGA Doc 242/22 Safety of Hydrogen, HYCO Production & Carbon Capture
- Installation permitting guidance for hydrogen and fuel cell stationary applications

Project Management will be required to cover the duration of the whole project, including ensuring that the supply chain is accredited and appropriately insured to provide all the requirements of this project. Accreditation and insurance includes the survey, design, manufacture, installation, maintenance and civils and electrical work as and when needed.

⁵ MOD Policy Instruction 01/20 Infrastructure Function. 6 20220422-Sustainable Support Strategy-Summary-CDLS.docx

⁷ <u>CP41 The design, construction, maintenance and operation of filling stations dispensing gaseous fuels.</u> <u>Revision 2: 2018 - BCGA</u>

⁸ The map is available to download for free at <u>CGA (www)</u>.

Project Implementation

The trial will be split into three phases, to cover the full end-to-end use of the capability:

There will be a pre-delivery siting board for the equipment provided by the Authority with support from the Supplier.

- 1. **Phase 1 Setup**: Activity associated with planning, logistics issues and installation. Depending on how many refuellers are selected on contract award by the authority, the setup plan will need to be communicated to the Authority before installation can occur.
- 2. **Phase 2 Operation**: Activity associated with the day-to-day operation, user experience and logistic issues.
- Phase 3 Reliability and Decommissioning: Retrospective of the installation and operation activity over the trial period and the activity related to the close down activity and associated logistic issues

Each phase will contain an associated Deliverable Report, which will contain description and findings from the phase. The Phase will conclude with an end-of-phase Milestone.

Note - If there is a delay in the delivery and installation of the asset which impacts directly on operational commencement of the refueller, the supplier will reduce the rental charge of the unit for that Phase, by the number of days delayed according to the weekly rental rate.

Project Phase Deliverables

(Delivered using MS Word and/or MS PowerPoint)

FUTURE ENERGY TRIAL - HYDROGEN VEHICLES

SCHEDULE OF REQUIREMENT

Mile- stone	Phase activity	Deliverables	Key Deliverables	Acceptance Criteria	Performa nce Target	% Reduction (Calendar Days)	Due Date Total life of contract 114 Calendar days	Price (£) Ex VAT
1	Phase 1 (Setup) Activity associated with planning, logistics issues and installation. The setup plan will need to be communicated to the Authority before installation can occur. The setup location (site 1) is Air Products Refueller (Heathrow). Site 2 is defined as HMNB Devonport.	IMPLEMENTATION PLAN Per location.	Plan detailing how site set up will be achieved (where applicable). To include any power supply required, end user training plan, safety cases and safety certificate of conformity, hydrogen system compliance, certificate of conformity of hydrogen quality for automotive use, evidence of insurance and a system hazard log.		Delivered in full and accepted by the authority.	•	10 calendar days from contract commencement	£

ASSET DELIVERY Delivery, set-up of assets. Note - If there is a delay in the delivery and installation of the asset which impacts directly on operational commencement of the refueller, the supplier will reduce the rental charge of the unit for that Phase, by the number of days delayed according to the weekly rental rate	Provide hydrogen to vehicle (i.e Toyota Mirai). 35Kg per month per site. Pay per Kg of fuel actually used. PLEASE NOTE: -The Authority has a preference of 100% green Hydrogen as an ideal fuel. Other hydrogens colours will be accepted including	Documents/syst ems/equipment/ assets/fuel is treated as a LOL and not included in the fixed price. Please see the LOL table.	Delivered in full and accepted by the authority.	Green (Milestone payment in full) Delivered in Time – No reduction. Amber (2% reduction) Up to 10 Days late.	Site 1 – Asset Delivery & Set- up from contract £ commencement NLT 30, operational by NLT 32 Site 2 –Delivery & Set-up from contract commencement NLT than day 48, operational
Note - If there is a delay in the delivery and installation of the asset which impacts directly on operational commencement of the refueller, the supplier will reduce the rental charge of the unit for that Phase, by the number of days	per Kg of fuel actually used. PLEASE NOTE: - The Authority has a preference of 100% green Hydrogen as an ideal fuel. Other hydrogens colours will	and not included in the fixed price. Please see the		Delivered in Time – No reduction. Amber (2% reduction) Up to 10	NLT 30 , operational by NLT 32 Site 2 –Delivery & Set-up from contract commencement NLT than day
	barrier around the system. Use of open-source equipment to monitor equipment availability and to maintain 95% of the individual unit's availability once operational (reliability assessment).				

	If the above is not delivered there will be non-payment due to the critical nature of this requirement.					
TRAINING Refueller User guide. Risk assessments	As required.	Documents as requested	Delivered in full and accepted by the authority.	payment in full) Delivered in Time –	Training – Site 1 – NLT than day 30 from contract commencement Site 2 – – NLT day 48	£
REPORT Executive Summary (Synopsis no more than 20% of the report word count)a. Detail of the task including an outline of the work conducted during Phase 1. (Detail the major activities, such as kick off meetings held, site visit,	Where there is a requirement to consult MOD stakeholders, the authority will coordinate the response. The requirement will be held by the Authority in this case.	The report will be reviewed in consultation with the SRT and, if content, accepted by the Authority's designated Project Manager.	The supplier shall deliver phase 1 to the Authority on the due date column.	Green (Milestone payment in full) Delivered in Time – No reduction.	Report (Completion of Phase 1) – Delivered NLT day 60	£

c. d.	equipment delivered completed or started in a diary format). Details of MOD stakeholders consulted during Phase 1 and a purpose of communication. (Brief detail of who/or departments consulted to achieve setup). Analysis of the Training needs for Phase 1. (Process of understanding the training needs, identifying gaps in knowledge to get them acquainted with the system) Assessment of the equipment set up procedure across all site(s) including timing. (Was there a hold up, what could be done to speed up the installation if any, was site access acceptable including site pre visit). Assessment of Phase 1 outcomes against the minimum technical specification. (Did we achieve fill of the cars with fuel with minimum delay, were/could there be any compatibility issues?) Assessment of the risks and issues experienced during the phase. (What in your view were the risks in future setup activities, what could be	All information in this deliverable is to include the supporting evidence and reasoning. Phase 1 report delivered on the due date. If the deliverable required amendments or reworks, the Supplier with have 10 calendar days to amend the deliverable and resubmit it to the Authority for acceptance. Following deliverable acceptance, the associated Milestone will be achieved.	Green - The supplier delivers phase 1 Setup Report on the completion date with no required amendme nts or re- works. Amber – The supplier delivers phase 1 Setup Report on the due date, however amendme nts/rework s are required. A resubmitte d report is delivered within a minimum of 10	Amber (2% reduction) Up to 10 Days late. Red (4% reduction) Greater than 10 Days late.		
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deliverable in timelines specified in the deliverable.	amendme nts/rework s are required. A resubmitte d report is delivered greater than 10 calendar days after the due date.	Estimated	
 actioned to make setup faster and more efficient). g. Assessment of site requirements for future equipment use and any recommendations (What would the ideal site setup look like, such as hardstanding considerations, ease of access to the site using your equipment). Met Project Operational deliverable in timelines specified 	days after the due date. Red - The supplier delivers phase 1 Setup Report on the due date, however amendme		

PHASE 1 – Estimated Total cost for <u>site 2 HMNB Devonport</u>	Equipment Rental Total
	(REDACTED FOR SECURITY
	PUPROSES - OFFICIAL SENSITIVE)
	Estimated Hydrogen Cost
	(REDACTED FOR SECURITY PUPROSES - OFFICIAL
	SENSITIVE)

Mile- stone	Phase activity	Deliverables	Key Deliverables	Acceptance Criteria	Performance Target	% Reduction Calendar Days		Price (£) Ex VAT
2	Phase 2 (Operation) Activity associated with the day-to-day operation, user experience and logistic issues.	MAINTENANCE & SUPPORT Maintain 95% availability of hydrogen to issue at each site over the period on site during operational times.	To be able to refuel car with hydrogen. Availability core hours Mon – Fri 0800-1800.	The availability report will be reviewed in consultation with the SRT and, if content, accepted by the Authority's designated Project Manager. All information in this deliverable is to include the supporting evidence and reasoning. Phase 2 report delivered on the due date. If the deliverable required amendments or reworks, the Supplier with have 10 calendar days to amend the deliverable and resubmit it to the Authority for acceptance. Following deliverable acceptance, the associated Milestone will be achieved.	The supplier shall deliver phase 2 to the Authority on the due date column. Green -The supplier delivers phase 2 Operation Report on the completion date with no required amendments or re-works. Amber – The supplier delivers phase 2 Operation Report on the due date, however amendments/rew orks are required. A resubmitted report is delivered within a minimum of 10 calendar days after the due date.	Green (Milestone payment in full) 95%+ availability – No reduction. Amber (2% reduction) 94-95% availability Red (4% reduction) 90-93% availability	Report (Completion of Phase 2) – Delivered NLT day 90	£

REPORT	Documents as requested	The report will be reviewed in consultation with the SRT	Red - The supplier delivers phase 2 Operation Report on the due date, however amendments/rew orks are required. A resubmitted report is delivered greater than 10 calendar days after the due date. The supplier shall deliver phase 2 to	Green (Milestone	Report (Completion	
 Executive Summary. (Synopsis no more than 20% of the report word count). Report Body: a. Detail of the task including an outline of the work conducted during Phase 2. (Detail the major activities, such as kick off meetings held, site visit, equipment delivered completed or started in a diary format). b. Details of stakeholders consulted during 		 and, if content, accepted by the Authority's designated Project Manager. All information in this deliverable is to include the supporting evidence and reasoning. Phase 2 report will be delivered on the due date and accepted in accordance with the deliverable acceptance criteria. If the deliverable required amendments or reworks, the Supplier with have 10 calendar days to amend the deliverable and resubmit it to the Authority for acceptance. 	Green -The supplier delivers phase 2 Operational Report on the completion date with no required amendments or re-works Amber – The supplier delivers phase 2 Operational Report on the due	payment in full) Delivered in Time – No reduction. Amber (2% reduction) Up to 10 Days late. Red (4% reduction) Greater than 10 Days late.	of Phase 2) – Delivered NLT day 90	2

Phase 2 and a	Following deliverable	date, however	
		amendments/rew	
communication	acceptance, the associated		
record. (Brief detail	Milestone will be achieved.	orks are required.	
of who/or		A resubmitted	
departments		report is delivered	
consulted to achieve		within a minimum	
phase).		of 10 calendar	
c. Analysis of the		days after the due	
Training needs for		date	
Phase 2. (Process of			
understanding the		Red - The	
training needs,		supplier delivers	
identifying gaps in		phase 2	
		Operational	
knowledge to get		Report on the due	
them acquainted		date, however	
with the system)		amendments/rew	
e. Assessment of		orks are required.	
Phase 2 outcomes		A resubmitted	
against the minimum		report is delivered	
technical		greater than 10	
specification. (Was		calendar days	
there a hold up,		after the due date.	
what could be done		aller the due date.	
to ensure continuous			
operations if it was			
not achieved).			
f. Assessment of the			
risks and issues			
experienced during			
the phase. (What in			
your view were the			
risks in future			
operation activities,			
what could be			
actioned to make			
refueller operations			

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more efficient, such	
as bigger storage).	
g. Assessment of site	
requirements for	
future equipment	
use and any	
recommendations.	
(any	
recommendations	
on site selection	
from experience	
gained)	
h. Assessment of the	
user refuelling	
experience. (Were	
the users adequately	
trained, what were	
the demerits to the	
users refuelling	
experience?)	
i. Assessment of the	
equipment servicing	
and maintenance	
requirements during	
Phase 2. (Was it	
reliable, how	
reliable, detail down	
time where refuelling	
could not happen,	
how was it rectified?	
j. A usability	
assessment	
(including user	
equipment access	
and user feedback).	
(User feedback	

 session, what were the points that changed user perceptions about Hydrogen?) k. Provision of the hydrogen demand profile (does the site need to have 24 hr operation), including recommendations for reorder process/refuelling of the unit. (Breakdown of refuelling visits, fuel taken, time taken per refuel, detail any other users of equipment other than Toyota Mirai fleet). I. Records of any conflicts of interest or common questions. (Detail any comments) 					
PHASE 2 TO	TAL COST – Site 1	– Air Products (Heathrow)		Equipment Rei (REDACTED FO SECURITY PUI OFFICIAL SEN Estimated Hyd	OR PROSES - SITIVE)

	(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
PHASE 2 Site 2 HMNB Devonport.	Equipment Rental Total: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE) Estimated Hydrogen only: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)

Mile- stone	Phase activity	Deliverables	Key Deliverables	Acceptance Criteria	Performance Target	% Reduction Calendar Days	Due Date Total life of contract 114 Calendar days	Price (£) Ex VAT
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3	Phase 3 (Reliability and decommissi oning) Retrospective of the installation and operation activity over the trial period and the activity related to the close down activity and	ASSET REMOVAL	Site to be returned to original site condition.	As accepted by the authority	All contractor equipment removed from site by day 124	Green (Milestone payment in full) Delivered in Time – No reduction. Amber (2% reduction) Up to 10 Days late. Red (4% reduction) Greater than 10-20 Days late.	NLT day 114	
	associated logistic issues Phase 3 (Reliability and decommissi oning) Retrospective of the installation and operation activity over the trial period	 REPORT a. Executive Summary (Synopsis no more than 20% of the report word count) b. Detail of the task including an outline of the work conducted during Phase 3. (Detail the major 	Documents as requested	The report will be reviewed in consultation with the SRT and, if content, accepted by the Authority's designated Project Manager. All information in this	The supplier shall deliver phase 3 to the Authority on the due date. Green -The supplier delivers phase 3 Reliability and decommissionin g Report on the completion date	Green (Milestone payment in full) Delivered in Time Amber (2% reduction) Up to 10 Days late Red (4% reduction) Greater than 10 Days late	Report (Completion of Phase 3) – Delivered NLT day 114	

and the	activities, such as	deliverable is to	with no required
activity	break down	include the	amendments or
related to the	meetings held,	supporting	re-works
close down	site visit,	evidence and	Amber – The
activity and	equipment	reasoning.	
associated	recovered		supplier delivers
logistic issues	completed,	Phase 2 report	phase 3
	broken	will be delivered	Reliability and
	equipment,	on the due date	decommissionin
	service parts used	and accepted in	g Report on the
	in a diary format).	accordance	due date,
	c. Details of	with the	however
	stakeholders	deliverable	amendments/re
		acceptance	works are
	consulted during	criteria.	required. A
	Phase 3 and a		resubmitted
	communication	If the	report is
	record. (Brief	deliverable	delivered within
	detail of who/or	required	a minimum of 10
	departments	amendments or	calendar days
	consulted to	reworks, the	after the due
	achieve	Supplier with	date
	breakdown)	have 10	
	d. Analysis of the	calendar days	Red - The
	Training needs for	to amend the	supplier delivers
	Phase 3. (Process	deliverable and	phase 3
	of understanding	resubmit it to	Reliability and
	the training	the Authority for	decommissionin
	needs, identifying	acceptance.	g Report on the
	gaps in		due date,
	knowledge, how		however
	effective was the		amendments/re
		Following	works are
	service engineer	deliverable	required. A
	to fix problems (fix	acceptance, the	resubmitted
	first visit?))	associated	
	e. Assessment of		report is
	outcomes against		delivered greater

the minimum	Milestone will	than 10 calendar		
technical	be achieved.	days after the		
specification.		due date.		
f. Assessment of				
the risks and				
issues				
experienced				
during the phase.				
(What in your				
view were the				
risks in future				
hydrogen				
activities/refueller				
use for the MOD,				
what could be				
actioned to make				
setup faster and				
more efficient if a				
further trial was to				
occur).				
g. Assessment of				
site requirements				
for future				
equipment use				
and any				
recommendations				
. (In reflection				
would you change				
request on future				
MOD contract to				
ensure efficient				
and timely setup).				
h. Future system				
management				
recommendations				
. (How should the				

· · · · · · · · · · · · · · · · · · ·	
	MOD manage
	such refuelling
	sites if it was to
	purchase its own
	refuelling site
	equipment)
	i. Reliability and
	system failure
	assessment for
	the duration of the
	trial. (What failed
	when where why,
	when where why,
	impact. How
	would that be
	mitigated next
	time?)
	j. Recommendation
	s for increased
	scaling of the
	hydrogen
	refuelling solution.
	(What should the
	MOD look at if it
	was to increase
	the number of
	hydrogen
	refuellers and
	make more
	permanent, issues
	over security of
	supply of
	hydrogen, how
	would that be
	mitigated
	against?)

k. Assessment of
likely future costs,
including a
variability
assessment
based on usage
and fuel demand,
plus any other
relevant variables.
(Expect to see a
breakdown of
costs per 300kg of
hydrogen issued
over a 30 day
period, with
capital costs split
over 36 months).
I. Assessment of
future fuel
availability.
(explain how
supply could be
guaranteed)
guaranteed)
Equipment mobility
assessment in line
with technical
specification. (Was it
mobile enough, how
quickly could it be set
up using he
experience gained of
the MOD sites used.)

PHASE 3 TOTAL COST – Site 1 – Air Products (Heathrow)	Equipment rental total: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE) Estimated hydrogen cost only: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
PHASE 3 HMNB Devonport	Equipment rental total: £(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE) Estimated hydrogen cost only: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)

	Equipment Rental
	Total
Total Requirement Cost for Site 1 – Air Products (Heathrow)	
(PLEASE NOTE: This cost will be used for the 20% weighting cost evaluation)	(REDACTED FOR
	SECURITY
	PUPROSES - OFFICIAL
	SENSITIVE)Estimate
	d Hydrogen Cost
	a nyarogen cost
	(REDACTED FOR
	SECURITY
	PUPROSES -
	OFFICIAL
	SENSITIVE)
	Total:
	(REDACTED FOR
	SECURITY PUPROSES -
	OFFICIAL
	SENSITIVE)
	oenonne)
	Equipment Rental
Total Requirement Cost for Site 2 – HMNB Devonport	Total
Total Requirement Cost for Site 2 – Think Devoliport	(REDACTED FOR
	SECURITY
	PUPROSES -
	OFFICIAL
	SENSITIVE)Estimate
	d Hydrogen Cost
	(REDACTED FOR
	SECURITY
	PUPROSES -

	OFFICIAL SENSITIVE) Total: (REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)
Total Cost for Requirement including all Phases and Site 1, Site 2	£53,175.00

	(Ad	ditional Hydrog		F LIABILITY ised on an ad ho	c basis – Agree	ed rate)			
Phase activities	Deliverables	Key Deliverables	Acceptance Criteria	Performance Target	% Reduction Calendar Days	Due Date Total life of contract 140 Calendar days	Hydrogen Fuel Price Per Kg Rate (£) Ex VAT	Weekly rental of MCP N/A	Delivery or Collection
1 - 3	Additional Hydrogen Fuel	Additional Hydrogen Fuel To be used for fuel used.	As per TAF Form	As per TAF form	As per TAF form	As per TAF form	(REDACTED FOR SECURITY PUPROSES - OFFICIAL SENSITIVE)		

Project Operational Deliverables

Key Deliverable	Deliverable Detail	Due Date	Acceptance Criteria
Provide hydrogen to vehicle (i.e Toyota Mirai).	Minimum of 1 car to be refuelled.	Site 1 – NLT 32 calendar days from Contract Commencement. Site 2 – (Optional) NLT 50 calendar days from Contract Commencement.	Hydrogen fuel is compatible with the Authority's car (Toyota Mirai).
Provide hydrogen for automotive use. PLEASE NOTE: - The Authority has a preference of 100% green Hydrogen as an ideal fuel. Other hydrogens colours will be accepted including part green hydrogen. Ultimately the hydrogen fuel will need to be compatible with the Toyota Mirai. Cylinder pallet or tube trailer carrier of hydrogen for transportation and storage method is acceptable.	Sufficient hydrogen to support 1000 miles per month per car. 2 cars per site maximum. Estimate 35 Kg of Hydrogen per month for both cars at each site. Hydrogen consumption may increase by approx. 20%.	Site 1 – NLT 32 calendar days from Contract Commencement. Site 2 - (Optional) NLT 50 calendar days from Contract Commencement.	As tested
Minimum issue of hydrogen weight per day.	10 Kg of 700 Bar hydrogen to be available to issue each calendar (core hours) day.	Site 1 – NLT 32 calendar days from Contract Commencement. Site 2 - (Optional) NLT 50 calendar days from Contract Commencement.	As installation product specification.

System has ability to issue 700 Bar hydrogen Please note: - It would be <u>desirable</u> to also have the ability to issue 350 Bar Hydrogen in addition. This sentence will not be marked as it is <u>desirable</u> .	Can issue 700 Bar hydrogen (not concurrently)	Site 1 – NLT 32 calendar days from Contract Commencement. Site 2 - (Optional) NLT 50 calendar days from Contract Commencement.	As installation product specification.
Control of access to operate the system. No requirement to place a physical barrier around the system.	Demonstrate control of access system to approved persons only to operate it.	On installation	As tested
Use of open-source equipment to monitor equipment availability and to maintain 95% of the individual unit's availability once operational (reliability assessment).	Website to be accessed via MODNet	On installation.	As tested

Project Duration

114 calendar days from Contract Commencement.

Project Governance

The Supplier shall host a virtual project initiation meeting with the Authority's Project Manager (PM), representative from the SRT, Supplier PM, and any other Supplier representative as deemed applicable by the Supplier, within five business days of Contract Commencement. The purpose of this meeting is to agree the Milestone and Deliverable plan and Milestone payment dates.

The Supplier shall host, chair and issue minutes of a Monthly Progress Review Meeting (MPRM) within five business days immediately following the meeting. MPRMs can be virtual or in person depending on prior agreement between the Authority and the Supplier. The date for the initial MPRM will be agreed at the project initiation meeting and the dates for subsequent meetings agreed during each MPRM.

The MRPMs as a minimum shall discuss:

- An update on the Supplier's progress/performance against the requirement milestones and deliverables.
- Identification of any risks to the delivery of the requirement and outline mitigation activity.
- Answer any questions the Authority may have on regarding the requirement and contents of the Monthly Progress Report."

Oversight and leadership by the Authority for this trial on a day-to-day basis will be between the SpTx Innovation team and SRT team working collaboratively to manage the Supplier and the resultant trial deliverables. Point of Contact for access to Units, site visits, site plans and any other access issues is Flt Lt Richard Griffiths.

Project Key Performance Indicators (KPIs)

Trial progress will be assessed at the MPRMs against the deliverable and milestone lists in accordance with the acceptance criteria.

Project Government Furnished Assets (GFA)

The Authority will provide site access to up to three trial locations for Supplier personnel. The Authority will make available site personnel to liaise with the Supplier personnel as required for installation, training, user feedback and logistics during all phases of the trial.

The Authority will make available hydrogen cars from the MOD white fleet for use on the trial. There will be two cars per site. GFA will be provided in accordance with the agreed trials plan at the project initiation meeting.

Project Security and Personnel Management

The overall security classification of this trial is Official.

The Supplier shall provide sufficient and evidenced Suitably Qualified and Experienced Personnel (SQEP) throughout the duration of the Contract to consistently deliver a quality service. The Supplier shall also give experience of dealing with similar installations. To maintain momentum, the Supplier shall wherever possible maintain continuity of Key Personnel.

Should the Authority determine that a change in personnel is required for any reason, the Supplier shall offer a replacement within 10 business days from when the Supplier has been notified by the Authority. This Supplier will:

- notify the Buyer promptly of the absence/replacement of any Key Staff providing the buyer with the replacement's CV. This excludes short-term sickness or holidays of two (2) weeks or less, in which case the Supplier shall ensure appropriate temporary cover for that Key Role;
- ensure that any Key Role is not vacant for any longer than ten (10) Calendar Days;
- Give as much notice as is reasonably practicable of its intention to remove or replace any member of Key Staff and, except in the cases of death, unexpected ill health or a material breach of the Key Staff's employment contract. This will mean at least one (1) Months' notice;
- ensure that all arrangements for planned changes in Key Staff provide adequate periods during which incoming and outgoing staff work together to transfer responsibilities, and ensure that such change does not have an adverse impact on the provision of the Deliverables; and
- ensure the buyer is in agreement with the Supplier that any replacement for a Key Role has a level of qualifications and experience appropriate to the relevant Key Role and is fully competent to carry out the tasks assigned to the Key Staff whom they have replaced.

Supplier personnel involved in the trial are to be BPSS cleared and are to adhere to all advertised MOD policies and procedures when on site. All Supplier personnel will be escorted onto trial sites by site personnel. Supplier personnel will have to display official company identification to gain access to the trial sites. The Authority PM will be the POC for access to sites.

The Supplier shall provide evidence of BPSS Clearance⁹ for their personnel working under this Contract, including the clearance number and expiry date, prior to commencing any work with the programme. Exceptions will at the discretion of the Authority.

Project Exit

As part of the Contract, the Supplier will complete Milestones 1 to 3, and must remove all associated trial equipment from the sites when leaving the site(s).

Project Risks

ID	Risk	Impact	Mitigation	Owner
1	There is a risk that the Supplier cannot source refuelling equipment or there is long equipment lead times.	Delays to equipment provision could result in delays to the trial deliverables and milestone completion.	The Supplier must agree to provide equipment in line with the deliverable and milestone dates during their tender response. Any amendment to this will be discussed at the project initiation meeting but will only be made on agreement with the Authority.	The Supplier

^{9 &}lt;u>Government baseline personnel security standard - GOV.UK (www.gov.uk)</u> National security vetting: clearance levels - GOV.UK (www.gov.uk)

2	There is a risk that	Delays to the trial	The Supplier must agree to	The
	there is shortage of fuel or difficulties with supply.	deliverables and milestone completion.	rive outputs indict agree to provide fuel (ideally, but not essential green hydrogen) in line with the deliverable and milestone dates during their tender response. Any amendment to this will be discussed at the project initiation meeting or at the MPRM but will only be made on agreement with the Authority. This SOR gives the Supplier the option Supplier to source the most appropriate and readily available fuel to provide additional flexibility of supply.	Supplier
3	There is a risk that there are siting board issues.	Delays to Phase 1.	The Authority will source and share experience from RAF Leeming to provide the siting board template for other sites at the project initiation meeting.	The Authority
4	There is a risk that training is too complex or lengthy for site personnel.	Delays to the trial deliverables and milestone completion.	The Supplier must agree to provide equipment training in line with the technical specification during their tender response. Any amendment to this will be discussed at the project initiation meeting or at the MPRM but will only be made on agreement with the Authority. The Supplier will ensure that Supplier control and access to equipment will be limited by code and or key card (RFID).	The Supplier
5	There is a risk that the equipment is unserviceable during the trial and needs to be replaced.	Delays to Phase 2.	The Supplier must agree to provide serviceable equipment training in line with the technical specification during their tender response. Any amendment to this will be discussed at the project initiation meeting or at the MPRM but will only be made on agreement with the Authority. The Authority seeks 95% equipment operational availability to issue fuel. Failure to provide serviceable equipment by the Supplier to result in the failure provide acceptable deliverables which will prevent milestone payments.	The Supplier
6	There is a risk that the Authority cannot provide GFA in accordance with the agreed schedule at the	Delays to the trial deliverables and milestone completion.	The Authority will source GFA and confirm its availability at the project initiation meeting and at the MPRM thereafter. Any issues will be discussed with the	The Authority

	project initiation meeting.		Supplier at these events and a rectification plan will be agreed by both parties where required. This may include reduced trial scope or an alternative provided by the Authority.	
7	There is a risk that the equipment damages the MOD cars.	Damage to GFA.	The Supplier must agree to provide equipment in line with the technical specification and specified standards as detailed during their tender response. Any amendment to this will be discussed at the project initiation meeting or at the MPRM but will only be made on agreement with the Authority. Failure to provide equipment in line with the technical specification and specified standards during the trial will result in the failure provide acceptable deliverables which will prevent milestone payments.	The Supplier

Project Intellectual Property Rights (IPR)

All intellectual property rights of any nature in the results generated in the performance of work under the Contract and recorded in any written or other tangible form (the 'Results'), including rights in inventions, designs, computer software, databases, copyright works and information shall vest in and be the property of the Authority.

Project Pricing/Payment

Payment for Supplier Deliverables will be made by electronic transfer in accordance with DEFCON 522 (Edition 11/21) as per Schedule of this contract.

Before payment can be considered, each invoice must include a detailed elemental breakdown of work completed and the associated costs.

Claims for payment of Supplier Deliverables shall be submitted in accordance with the agreed Milestone Payment Plan monthly in arrears, upon receipt of an Authority letter confirming that all Supplier deliverables associated with their respective Milestone have been accepted. The Authority letter will be issued within 5 business days of the second and last monthly review meetings.

Milestone Reports	Completion Date
Milestone 1: End of Phase 1 (Setup)	No later than 60 calendar days from Contract Commencement
Milestone 2: End of Phase 2 (Operations)	No later than 90 calendar days from Contract Commencement
Milestone 3: End of Phase 3 (Reliability and Decommissioning)	No later than 114 calendar days from Contract Commencement

Milestone Payment Plan	Completion Date
Monthly	End of Month

All Travel and Subsistence (T&S) shall be at the cost of the Supplier.

Social Value

It is important that the Supplier for this contract is a responsible employer that makes an active contribution to Fighting Climate Change. The Government's 25 Year Environment Plan sets out goals for improving the environment within a generation and details how it will work with communities and businesses to do this. To meet the goals and targets it has set, government has identified key six areas in the plan through which it will focus action.

As part of this Contract, the identified Social Value theme is Theme 3 - Fighting Climate Change p15 - 17¹⁰.

In particular we will be assessing bids using the Model Award Criteria through the contract to see the active contribution to climate change:

• MAC 4.1 Deliver additional environmental benefits in the performance of the contract including working towards net zero greenhouse gas emissions.

• MAC 4.2 Influence staff, suppliers, customers and communities through the delivery of the contract to support environmental protection and improvement

Project Personal Data

Personal Data will be required for Supplier personnel to gain site access for the duration of the trial. Personal Data will be managed in accordance with the Data Protection Act 2018.

Project Cyber Risk

Very low RAR-849248329

Pricing & Payment

The preferred bidder will need to onboard to EXOSTAR if not already on the MOD's CP&F system. In order to onboard the MOD will require the following from the preferred bidder: -

- Organisation name as stated on Companies House
- Address Will need to be the same as what is mentioned in the contract
- DUNS number
- Contact details, and
- Bank details supplied on the organisations letter headed paper

¹⁰

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/940826/ Social-Value-Model-Edn-1.1-3-Dec-20.pdf

The preferred bidder will also need to set up an NCAGE number for their address. The N-CAGE number can be set up using the following the link.

https://www.ncb.mod.uk/ncbportal/ - NCAGE Number

Please note that EXOSTAR is a separate company to the MOD and will only communicate with the supplier.

Payment for Supplier Deliverables will be made by electronic transfer in accordance with DEFCON 522 (Edition 11/21) as per Schedule of this contract.

Before payment can be considered, each invoice must include a detailed elemental breakdown of work completed and the associated costs.

Claims for payment of Supplier Deliverables shall be submitted in accordance with the agreed Milestone Payment Plan, monthly in arrears, upon receipt of an Authority letter confirming that all Supplier deliverables associated with their respective Milestone have been accepted.