

1. OVERVIEW

1.1 Transport for London (TfL)

1.1.1 TfL was created in 2000 as the integrated body responsible for London's transport system. TfL is a functional body of the Greater London Authority. Its primary role is to implement the Mayor of London's Transport Strategy and manage transport services to, from and within London.

1.1.2 TfL manages London's buses, the Tube network, Docklands Light Railway, Overground and Trams. TfL also runs Santander Cycles, London River Services, Victoria Coach Station, the Emirates Air Line and London Transport Museum. As well as controlling a 580km network of main roads and the city's 6,000 traffic lights, TfL also regulates London's taxis and private hire vehicles and the Congestion Charge scheme.

1.1.3 Further background on what TfL does can be found on the TfL website here:

<https://tfl.gov.uk/corporate/about-tfl/what-we-do>

1.2 Business Unit

1.2.1 London Bus Services Ltd (LBSL) is a subsidiary of TfL. It is part of Surface Transport within TfL and manages the planning, contracting and performance of the London bus network, as well as day to day operational aspects. LBSL secures bus services in London on a contract basis from private operators. This includes planning the bus route structure and other bus strategy decisions.

1.2.2 The main responsibilities include:

- developing the bus network;
- competitively tendering bus services and ensuring contract compliance;
- monitoring the bus network and targeting poor performing operators or routes;
- dealing with ticketing issues and
- maintaining the new iBus technology.

1.3 ~~Standard and Variant Bids~~

1.3.1 This specification is for a Standard Bid (except where stated) for a one hundred percent (100%) delivered-only hydrogen supply on a routine basis to the site to fuel the buses based at Perivale, and this must be ready for use by the bus Operator at the latest within 12 months of the contract award date in accordance with this Invitation to Tender.

1.3.2 If your Bid assumes that you will require a grid utilities facility or any other third party facility or structure to be upgraded or developed for any part of your bid solution's equipment on the site, then you must also assume that the facility investment and ongoing maintenance and provision must be provided 100% by you and at your own cost without any support from TfL.

1.3.3 If you choose to submit a variant bid, it must pass the following requirements in order to be compliant: **THIS DOES NOT APPLY AT THE INVITATION TO SUBMIT STAGE**

1. It must be predominantly manufactured-on-site Hydrogen, greater than 50%. The facility must be ready for use by the bus Operator at the latest within 12 months of the contract award date in accordance with this Invitation to Tender.
2. It must not in any way compromise any single one of the mandatory requirements or processes as stated in the complete four volumes of the Invitation to Tender.
3. It must be entirely standalone, as a distinct set of proposal documentation (i.e. it may duplicate content in the documentation making up your Standard Bid) and all documentation in all formats in your Variant Bid must be clearly marked "Variant Bid" in bold type, otherwise it will not be considered and non-compliance will result.
4. It must be within the boundary of the area leased to Metroline at Perivale Bus Garage (see Appendix 2: PCI).
5. In order to achieve equivalent resilience to the Standard Bid, variant bids that use on-site hydrogen production have the option to either propose solutions using three (3) days of dispensable hydrogen storage or two (2) days of dispensable hydrogen storage:
 - a. Option 1: Variant bids must have three (3) days of dispensable storage and must be designed to include the facility to refill on-site High Pressure (HP) storage using trailer delivery in the event of on-site production offline, or
 - b. Option 2; Variant bids must have two (2) days of dispensable storage and must provide a backup delivery trailer service. There must be clear evidence that a supply source exists for backup delivery of hydrogen sufficient for one day's supply at maximum demand (380Kg) and all other Mandatory Pass/Fail Requirements as stated in the Technical Submission Template at Volume 4 are met. The response time for delivery to site for backup deliveries shall be less than 12 hours from notification.
6. The total number of instances of individual component or total asset failure (not planned routine maintenance) resulting in a back up trailer delivery supply not greater than one (1) occurrence in every six (6) months.

2. DESIGN SPECIFICATION

The following specification requirements contained within this document applies to all bids, standard and variant, except where explicitly stated applies only to compliant bids in section 2.4 to 2.4.1 and variant bids in sections 2.4.2 to 2.4.5.

2.0.1 The site of the HRS is to be at:

Metroline Limited, Perivale Garage, Alperton Lane, Greenford, London UB6 8AA

2.0.2 All HRS design solutions shall be compliant with British Compressed Gas Association (BCGA) Code of Practice 41 and Code of Practice 33 or an internationally recognised technical equivalent that fully satisfies those Codes.

2.0.3 It is the sole responsibility of the Contractor to evidence that an alternative standard to that specified is equivalent or exceeds in every respect the standard specified, in order to demonstrate compliance in their tender with all standards stated in this specification.

2.0.4 The use of physical firewalls where required to reduce safety distances between contractors equipment is acceptable. Firewalls between contractors' equipment and areas currently designated by Metroline as overnight bus parking must be included where possible to minimise any loss of bus parking area.

2.0.5 One fixed requirement of this project is for the hydrogen refuelling process to fit seamlessly within the daily operation of the diesel bus fleet and integrate it within the bus operator's own vehicle daily servicing cycle, therefore the hydrogen dispensers are required to be co-located with the diesel pumps and refuelling time is desired to be as close to that of a diesel bus as possible, five (5) minutes per vehicle.

2.1 Total Daily Demand

2.1.1 A bus operators Peak Vehicle Requirement (PVR) is the Total Vehicle Requirement (TVR) minus 15% to account for spare vehicles for service and maintenance. LBSL is purchasing a minimum of 20 hydrogen fuel cell buses and up to a maximum of 26 buses. The decision will be dependant on the outcome of a competitive tendering exercise for buses and HRS, where economies of scale are an important objective of the project. Therefore bidders are asked to submit HRS solutions that are able to support the daily requirement of 17 fuel cell buses and state any additional capacity the solution has to support additional buses (with the same daily demand per vehicle) without any modification to the solution.

2.1.2 The expected daily demand for hydrogen is listed in Table 1 showing a maximum demand of 380 kg per day for 20 buses. The HRS solution must meet this demand over a period of three weeks and any demand fluctuations below it.

2.1.3 In practice, the quantity of hydrogen required per kilometre driven will vary depending on the on-bus system's efficiency and any seasonal temperature variations, especially prolonged cold weather periods.

- 2.1.4 Anticipated daily demand derived from in-servicing testing of the current state-of-the-art fuel cell bus technology available on the market has been carried out by the bus OEM.
- 2.1.5 A maximum value has been derived from seasonal fluctuations in hydrogen consumption are based on current bus industry heating and cooling solutions
- 2.1.6 We have revised the maximum daily demand to 380kg, and we are no longer providing an average daily demand. We anticipate actual usage to be close to the maximum daily demand, and, in collaboration with the bus operator we will regularly monitor vehicle route deployment to ensure this level is not exceeded.
- 2.1.7 Solutions proposed must enable scaling up of the hydrogen bus fleet size by LBSL. Prices are required for points at 10 bus intervals up a total 80 buses onsite, on the assumption that maximum daily demand must be met.

Table 1 Expected daily demand for hydrogen

Fleet Size	Peak number of vehicles on road	Contractual Daily Minimum, Kg	Maximum Daily Demand kg
20	17	275	380

Note: Hydrogen dispensing capacity must meet stated the maximum daily demands to be able to sustain demand during prolonged periods of cold weather.

Bidders will provide responses to the following requirements in the Bidder Response Template:

TSM1	Maximum Daily Output of hydrogen from dispenser (24hrs)	kg
TSM2	Minimum Daily Output of hydrogen from dispensers (24hrs)	kg
TSM3	Number of buses HRS can refuel within daily 8hour window	number
TSM4	Maximum number of buses HRS can refuel within daily 24 hour window daily	number

2.2 Minimum Station Performance Requirements

Bidders will provide responses to the following requirements in the Bidder Response Template:

TSM5	Required Fill Pressure (at 15 degrees C)	350 bar
TSM6	Target daily average refuelling time for 17.8kg refill of a 27Kg storage tank (including connection / leak test) per bus	≤5 minutes
TSM7	Refuelling window (time to refuel minimum of 17 buses)	8 hours / 364 days
TSM8	Number of dispensers (minimum)	2
TSM9	Ability to fuel buses two buses simultaneously	Required
TSM10	Ability to source and deliver HP hydrogen to station within 12hr notice sufficient to meet daily demand	Required
TSM11	Station remote monitoring of performance and faults	Required
TSM12	Overall time to complete a 27kg, 350bar fill from empty (including connection / leak test)	seconds
TSM13	Maximum number of back-to-back fills	Number

2.3 Minimum Refuelling Procedure Requirements

Bidders will provide responses to the following requirements in the Bidder Response Template:

TSM14	Station availability required (defined as the hydrogen dispensers immediately ready to dispense hydrogen) during the eight hour refuelling window of 19:00 to 03:00	99.90%
TSM15	Hydrogen fuel quality will be consistent with	SAE J2719
TSM16	Geometry of the refuelling nozzle interface will be consistent with	SAE J2600
TSM17	Refuelling nozzle	TK16 or suitable to alternative to optimize fuelling speed (to be mutually agreed with bus supplier).
TSM18	Refuelling protocol will be consistent with	SAE J2601-2
TSM19	Required peak refuelling flow rate (to be achieved in co-ordination with bus manufacturer).	100 grams H2 / second

2.4 Minimum Storage Requirements, Delivered

The following specification requirements in sections 2.4 (TSM20 to TSM23) to 2.4.1 applies only to compliant delivered bids.

Bidders will provide responses to the following requirements in the Bidder Response Template.

All TSM references to hydrogen storage quantities below can consist of trailer and/or static storage combined.

TSM20	Minimal dispensable hydrogen without any onsite compression equipment operational assuming onsite storage fully stocked. Can be made up of combination of high and low pressure storage.	1 day of dispensable daily maximum demand, without any additional compression, i.e. 380kg (Table 1) Note: 5 minute target average fuelling time does not apply in this failure scenario, slow fill acceptable.
TSM21	Minimum Total storage capacity of solution (onsite + offsite).= High Pressure Storage + Low Pressure Storage	Total of 3 days of dispensable daily demand, 990Kg . Please see note 2.4.1 below.
TSM22	Redundant on-site compression	Sufficient so the HRS can compress a maximum daily demand of 380Kg if one compressor is offline for any reason
TSM23	High pressure storage pressure	bar

2.4.1 For avoidance of doubt, delivered hydrogen from near-site or off-site production locations shall constantly maintain a minimum of 2 days dispensable hydrogen storage (static and/or tube trailer) at the Metroline site under normal operations. i.e. 680Kg

2.4.2 **Variant Bids (if used) THIS DOES NOT APPLY AT THE INVITATION TO SUBMIT STAGE**

The following specification requirements in sections 2.4.2 to 2.4.5 (TSM24 to TSM39) applies only to variant bids.

If Bidders wish to submit a variant, they must provide responses to the following requirements in the Bidder Response Template:

2.4.4 **Variant bid option 1 - 3 days' storage trailer, backup optional**

TSM24	Minimal dispensable hydrogen without any onsite compression equipment operational assuming onsite storage fully stocked. Can be made up of combination of high and low pressure storage.	1 day of dispensable daily maximum demand, , i.e. 380kg (Table 1) TSM 6 does not apply in this failure scenario, slow fill acceptable, however TSM 7 does.
TSM25	Minimum Total storage capacity = High Pressure Storage + Low Pressure Storage	Total of 3 days of dispensable daily demand, 990Kg .
TSM26	Redundant on-site compression	Sufficient so the HRS can compress a maximum daily demand of 380Kg if one compressor is offline for any reason
TSM27	Redundant on-site production	Required only if needed to meet Required Availability of the HRS (see TSM14 above)
TSM28	Not used	
TSM29	High pressure storage pressure	bar
TSM30	Not used	

2.4.5 Variant bid option 2 - 2 days storage, trailer backup required THIS DOES NOT APPLY AT THE INVITATION TO SUBMIT STAGE

TSM31	Minimal dispensable hydrogen without any onsite compression equipment operational assuming onsite storage fully stocked. Can be made up of combination of high and low pressure storage.	1 day of dispensable daily maximum demand. i.e. 380kg (Table 1) TSM 6 does not apply in this failure scenario, slow fill acceptable, however TSM 7 does.
TSM32	Minimum Total storage capacity	2 days of dispensable daily demand, 680Kg.
TSM33	Redundant on-site compression	Sufficient so the HRS can compress a maximum daily demand of 380Kg if one compressor is offline for any reason
TSM34	Redundant on-site production	Required only if needed to meet Required Availability of the HRS (see TSM14 above)
TSM35	Not used	
TSM36	Not used	
TSM37	High pressure storage pressure	bar
TSM38	Not used	
TSM39	Not used	

2.5 Equipment Life Expectancy

2.5.1 The Contractor's proposal shall provide forecast information, based on manufacturer's data where as available, as required below:

TSM40	Compression equipment life expectancy (only if applicable)	Years
TSM41	Dispensing equipment life expectancy	Years
TSM42	Whole station life expectancy including any fixed or mobile hydrogen storage, such as tube trailers.	Years
TSM43	Membrane life expectancy (only if applicable)	Years
TSM44	Production equipment life expectancy (only if applicable)	Years

2.6 Proposed Footprint

2.6.1 The Contractor's proposal shall provide HRS design footprint information as required below:

TSM45	Combined footprint of secure areas required to contain production, compression and storage equipment (excluding dispensers).	m ²
TSM46	Footprint of area currently used as overnight bus parking no longer useable for overnight bus parking due to contractors solution i.e.(firewalls may be used).	m ²
TSM47	Maximum height of equipment (Excluding lightning protection and vents)	Metres

2.7 Use of Utility Sources

2.7.1 The Contractor's proposal shall provide a detailed forecast of the daily consumption for each utility from well-to-tank to meet average demand as stated below:

TSM48	Natural Gas	m ³ per kg H2 dispersed
TSM49	Electricity	kWh/kg H2 dispersed
TSM50	Water	Litres/kg H2 dispersed
TSM51	Other	Other/1 kg H2 dispersed

- 2.7.2 All utility connections requirements shall include the means to meter each utility at the secure site boundary.
- 2.7.3 If your Bid assumes that you will require a grid utilities facility or any other third party facility or structure to be upgraded or developed for any part of your bid solution's equipment on the site, then you must also assume that the facility investment and ongoing maintenance and provision must be provided 100% by you and at your own cost without any support from TfL.
- 2.7.4 Proposals using any renewable or low carbon energy must clearly describe cost implications and how they intend to deliver this energy onto the Perivale site.
- 2.7.5 Proposals including an exhaust chimney stack shall include stack height and dispersion calculations.

2.8 Technical Support

- 2.8.1 At least two weeks prior to contract award, the Contractor shall provide an exhaustive Bill of Materials in accordance with CP33 showing all parts/labour that are excluded from the overall maintenance fee, including their price for parts and labour for installation and test, All parts not individually listed with manufacturers' name and part numbers and priced delivered to site shall be deemed to be included in the maintenance fee.
- 2.8.2 At the detailed design phase, the Contractor shall provide a Failure Mode Effects Analysis (FMEA) assessment covering unavailability of each of the major components in the system and the consequential effect on the station's refuelling times is required.
- 2.8.3 Prior to completion of the training in use of and testing of all major component parts for the HRS, the Contractor shall provide a dedicated communication/advice phone line with published technical incident/fault response database/time log. The time log shall include nominated qualified engineer email/phone or site attendance, initial response to logged fault and diagnosis, lead times and costs of any parts if non-inventory items and/or those excluded from maintenance as per the Pricing Matrix and time for remote resolution by engineer, or the completion of installation and test of replacement parts.
- 2.8.4 Any tools, equipment and parts inventory to be kept on site shall be listed,

Bidders will provide responses to the following requirements in the Bidder Response Template:

TSM52	Telephone helpline available for issue reporting	24hrs day / 7 days a week/ 364 days a year (excl Christmas Day)
TSM53	Remote response time to resolve faults, warnings, any dashboard "reds"	<2 hours
TSM54	Physical response time to resolve faults, warnings, any dashboard "reds"	<6 hours including the 2 hours above

2.9 Well to Tank Environmental Impact

- 2.9.1 Tenders must submit all compliant bid information **without claiming benefits of a** low carbon energy certificate.
- 2.9.2 Low carbon energy certificates to offset Contractor's overall carbon emissions may be submitted in addition at tender stage and will be considered by LBSL however LBSL reserves the right to reject any claimed offsets at its sole discretion. Full details of the certification scheme selected by the Contractor and the carbon reduction that can be claimed are required.
- 2.9.3 The environmental impact of the HRS is an important consideration therefore NO_x, PM, CO information will be required from Contractors.
- 2.9.4 Presentation of the information shall be based on the following parameters:
- The solution boundaries for calculation are limited to "well-to-tank" (including any delivery haulage emissions);
- 2.9.5 This module requires bidders to provide data for well to tank CO₂ emissions and any PM and NO_x emissions. For electrolyzers, kWh/kg H₂ is required. For SMR, well to tank CO₂, PM and NO_x /kg H₂ are required. Inverse scoring for scoring purposes, measured gross i.e. before any offset certificates, valid or otherwise that may be claimed.
- 2.9.6 Bidders must assume:
1. Solution boundaries for the calculation are limited to "well-to-tank" (including any delivery haulage emissions);
 2. All bidders' assumptions shall be based on latest figures from the relevant UK government departments.
- 2.9.7 Well-to-tank emission data will be reviewed in alignment with the European Commission's 2014 report on hydrogen production pathways:
http://iet.jrc.ec.europa.eu/about-jec/sites/iet.jrc.ec.europa.eu/about-jec/files/documents/report_2014/wtt_report_v4a.pdf.
- 2.9.8 The energy consumption per kg of hydrogen is also required, e.g. for electrolyzers kWh/kgH₂.
- 2.9.9 Inverse scoring will be used, measured gross, i.e. before any offset certificates, valid or otherwise that may be claimed. Bidders can see current figures on:
- The non-traded cost of carbon through the BEIS figures (<https://www.gov.uk/government/collections/carbon-valuation>);
 - Social damage costs of NO_x and PM through DEFRA figures (<https://www.gov.uk/guidance/air-quality-economic-analysis>)
- 2.9.10 On-site or near-site generation units that emit CO, NO_x and PM₁₀ are recommended to have exhaust after-treatment such as Selective Catalytic Reduction (SCR) installed where feasible.

The following information shall be provided in the Bidder Response Template:

TSM55	Green energy certificate option	Optional
TSM56	Biogas energy certificate option	Optional
TSM57	Data required on emissions that will be produced by the solution	Total exhaust mass flow rate, Carbon Dioxide, Carbon Monoxide, Methane, Oxygen; Nitrogen Oxides, Particulate Matter (10 micrometres or less) and any other emissions

2.10 Data Reporting

2.10.1 The Contractor shall meet obligations of LBSL's grant funding to analyse data points from the HRS. Appendix 1 Data Points lists the data required and the corresponding frequency of collection required. The applicability of the data points tables in Appendix 1 are listed in Table 2 below:

Table 2 Data Points (Appendix 1) Applicability

Appendix 1 Data Points Table Ref:	Data Category	Applicability
Table 3-9	On-site hydrogen production in the HPU	Only for variant options
Table 3-10	Hydrogen compression, storage, and dispensing in the HRU	All solutions
Table 3-11	External delivery of hydrogen	All solutions, unless on-site production
Table 3-12	Aspects related to technical performance of the entire HRS	All solutions
Table 3-13	Aspects related to financial performance of the HRS	All solutions

2.10.2 Data collection for the information shown in Table 3 below must be via an automated reporting system which will as a minimum send a monthly report 5 working days after the month end date. The report should contain data in a raw data in a CSV or Excel file format, clearly labelled and organised.

TSM58	Table 3 Automated Data Requirements	See Table 3 below
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Table 3 Automated Data Requirements

Item	Data Points of Bus Refuelling	Unit	Frequency of Collection
1	Vehicle ID	-	For each fill
2	Dispenser ID	-	For each fill
3	Odometer reading	km	For each fill
4	Start of refuelling process	dd.mm.yyyy hh:mm:ss	For each fill
5	End of refuelling process (end)	dd.mm.yyyy hh:mm:ss	For each fill
6	Duration of the actual dispensing process, start	dd.mm.yyyy hh:mm:ss	For each fill
7	Duration of the actual dispensing process, end	dd.mm.yyyy hh:mm:ss	For each fill
8	Was fill successful?	Yes/No/Known	For each fill
9	Was fill complete?	Yes/No/Known	For each fill
10	Refuelling process Duration (Optional alternative to 5)	mm:ss	For each fill
11	Ambient temperature at start of fuelling	°C	For each fill
12	Vehicle tank temperature at start of refuelling	°C	For each fill
13	Vehicle tank temperature at end of refuelling	°C	For each fill
14	Vehicle tank pressure at start of refuelling	bar	For each fill
15	Vehicle tank pressure at end of refuelling	bar	For each fill
16	Total amount of hydrogen dispensed per refuel	kg	For each fill
17	Total amount of gaseous and or liquid hydrogen delivered to site for routine fuelling operations (if applicable)	Kg or Nm3	For each fill
18	Total amount of gaseous and or liquid hydrogen delivered to site as backup supply (if applicable)	Kg or Nm3	For each fill
19	Power consumption for hydrogen delivery	kWh	Over 24hr period
20	Total grid gas consumed in hydrogen production (if applicable, excluding space heating)	Nm3	Over 24hr period
21	Total electricity consumed in hydrogen production unit (if applicable)	kWh	Over 24hr period
22	Total electricity consumed in hydrogen compression unit (if applicable)	kWh	Over 24hr period
23	Power consumption for pre-cooling (ULCF)	kWh	Over 24hr period
24	Total electricity consumed by station (excluding lighting & space heating)	kWh	Over 24hr period
25	Total electricity consumed by station and all	kWh	Over 24hr

	components, ancillary's and transformers (as taken from electricity meter)		period
26	Total water consumed by station	litres	Over 24hr period
27	Total hydrogen produced onsite	kg	Over 24hr period
28	Energy efficiency of production equipment - (Excluding any building utility loads, such as heating, lighting etc.)	%	Over 24hr period
29	Energy Efficiency of entire station, including production, compression and dispensing equipment (Excluding building utility loads, such as heating, lighting etc.)	%	Over 24hr period
30	Component outage not causing dispenser downtime (begin)	dd.mm.yyyy hh:mm and component ID	Each event
31	Component outage <i>not</i> causing dispenser downtime (end)	dd.mm.yyyy hh:mm and component ID	Each event
32	Downtime of electrolyser/reformer unit (begin)	dd.mm.yyyy hh:mm and unit ID	Each event
33	Downtime of electrolyser/reformer unit (end)	dd.mm.yyyy hh:mm and unit ID	Each Event
34	Component outage <i>not</i> causing downtime of electrolyser/reformer unit (begin)	dd.mm.yyyy hh:mm and component ID	Each event
35	Component outage <i>not</i> causing downtime of electrolyser/reformer unit (end)	dd.mm.yyyy hh:mm and component ID	Each event
36	Downtime of dispenser (begin)	dd.mm.yyyy hh:mm and component ID	Each event
37	Downtime of dispenser (end)	dd.mm.yyyy hh:mm and component ID	Each event

2.11 Hydrogen Purity

2.11.1 Proton Exchange Membrane (PEM) grade hydrogen compliant with Society for Automotive Engineering international standard SAE J2719 must be achieved at the level of dispensing. Suitable means of quality assurance must be in place to ensure that quality is monitored and maintained throughout the station operation for likely contaminates. The Bidder is to identify & monitor likely failure mechanisms which

may cause hydrogen contamination (such as oil) and provide a means of prevention via an automated system.

Routine hydrogen sampling should take place (minimum 12 monthly) and checked for compliance with SAE J2719 standard by an independent organisation, results & certification to be supplied to LBSL.

2.12 Health and Safety

2.12.1 The Contractor shall identify and mitigate all health and safety risks associated with the build, commissioning, operation and decommissioning of the system.

2.12.2 Hydrogen production, storage and refuelling equipment must comply with all relevant legislation for operation in the UK and BCGA Code of Practice 41 and Code of Practice 33 or equivalent. The equipment must be designed to comply with both current legislation and known future legislation as agreed in writing between the parties which is currently foreseen. The HRS impact on the bus garage shall be kept to an absolute minimum therefore wherever a safety case can be made to reduce the required safety distances (such as using of firewalls) as recommended by BCGA 41 & 33, this shall be implemented.

2.12.3 The successful bidder must produce a site-specific HRS risk assessment and fire risk assessment.

2.12.4 The site-specific risk assessments shall cover the following:

1. Any deviations from BCGA CP 33 & 41 and safety case for doing so (including the use of firewalls).
2. Overnight bus parking.
3. Security from trespassers.
4. Vandalism.
5. Arson.
6. Flooding (See section 2.14.2)
7. Terrorist risk.
8. Trained staff failing to follow procedures.
9. Untrained staff coming into contact with the refuelling depot.
10. Accident damage.
11. Accidental hydrogen release.
12. Bus interface and associated risks of accidental hydrogen release due to poor compatibility such as hydrogen leaking from the connection between the dispenser nozzle and bus.

2.12.5 Other risks reasonably expected to fall within the general industry knowledge of a supplier of an HRS should also be addressed.

2.12.6 Contractors are required to provide a register of Health and Safety risks associated with their refuelling facility in operation and an outline mitigation strategy for each risk.

2.12.7 In addition, Contractors shall propose an ongoing process, with periodic reviews (throughout design build and operation phases) through which all health and safety risks will be reduced as far as reasonably practical.

2.12.8 The Contractor shall sign off and provide the relevant safety information to LBSL and any regulatory bodies to meet the agreed milestones throughout the project.

2.13 Training

2.13.1 The Contractor shall provide a robust Training Plan including methods for routine maintenance of the dispensing equipment. They shall set up certificated training sessions for site maintenance and operating staff six people at a time as and when Metroline staff are available for a minimum of one hour per session, to be completed at the site a minimum of four weeks before the first bus is delivered. Formal certification shall be provided if required.

2.13.2 The Contractor shall provide an outline of the proposed training method and programme for the refuelling facility at tender stage.

2.13.3 Sufficient training for the Company's own trainers and access to full reference documentation and user's handbook to operate the station shall be provided as part of the system commissioning process. At the station commissioning stage, it is envisaged that ca 20 personnel may require training on the refuelling procedure, health and safety, emergency procedures and defect reporting over a period of three to four weeks. In addition, updates/refresher training shall be offered at a minimum of every 12 months or through online module where required. For the duration of the contract re-training must be available on request for any new staff as required by the Company and as updates for existing staff.

2.14 Planning

2.14.1 The Contractor shall be required to provide all necessary documentation to support LBSL in obtaining planning permission for installation and operation of the facility for the duration of the contract. Furthermore, the Contractor shall give an undertaking that where reasonable they will modify proposed designs to comply with specific requirements of the planning and other regulatory bodies.

2.14.2 Bidders should be aware that the majority of available space in the Perivale Bus Garage parking area has been designated a flood risk zone level 3 by the Environment Agency. A mandatory requirement to obtain planning permission will be for the Contractor to produce a flood risk assessment. Risk management design recommendations, including but not limited to, flood resistance & resilience measures should be included into solutions if required. Information on flood risk assessment requirements is available on the UK Government website, see links below.

Any high value electronic items such as HRS control modules, compressors and cooling equipment should, as a minimum, have protection measures implemented to avoid damage in the event of a 0.5m flood from the base of the equipment.

<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#when-you-need-an-assessment>

<https://www.gov.uk/guidance/flood-risk-assessment-in-flood-zones-2-and-3>

2.15 Aesthetics

- 2.15.1 LBSL requires hydrogen equipment to be designed to minimise the risk of tampering within the depot and outside the depot. The equipment shall be designed to comply with local aesthetic planning guidance.
- 2.15.2 The Contractor must obtain written approvals from the grant authorities for specific signage where required.
- 2.15.3 All signage, markings, instructions, warnings, notices and branding used on the hydrogen facility must be agreed with LBSL at the concept design stage of the build.
- 2.15.4 All TfL-specific vinyls and decals, including artwork will be sourced from approved suppliers as stated by TfL.

2.16 Collaboration with Stakeholders

- 2.16.1 After award of contract and subject to consultation with LBSL, the Contractor shall liaise with LBSL's bus manufacturer to ensure that the contractor's solution is compatible and achieves fuelling performance requirements set out from TSM5 to TSM19 inclusive. For the avoidance of doubt, the Contractor, not the bus manufacturer, shall be ultimately responsible for ensuring that all technical interface is fully compatible and operational with the LBSL hydrogen buses at the point of handover, no later than 12 months from the point of tender award.
- 2.16.2 Furthermore, the Contractor must work closely with the bus operator to ensure as far as reasonably practical that the refuelling station design and build as well as its operation is well integrated into the operation of the depot. The onus is on the Contractor to make themselves aware of the normal operational requirements of the depot including any space issues, by reading the tender documentation and by asking any questions at visits.
- 2.16.3 Note: The bus Operator (Metroline) will be part of the evaluation panel to evaluate the bids. Once the contract has been awarded a matrix project team will be established to ensure Designs are integrated into the operation of the depot.
- 2.16.4 The Contractor shall actively assist LBSL in stages of the project including the following:
- Securing permissions to build, operate and the necessary health and safety certification permissions;
 - Project management - including interfaces with Metroline to minimise any risk of interference in bus garage operations;
 - Monitoring and reporting of the project (problems as well as successes) at a minimum frequency of once every four weeks (periodically) or more as required by the TfL;

- Dissemination of the results of the project (both formal and informal);
- Stakeholder engagement at all stages of the contract, including but not limited to Metroline, Ealing Council and the funding bodies.

2.16.5 The Contractor shall be responsible for the following:

- All Principal Contractor and Principal Designer responsibilities under CDM (2015);
- Project management - including interfaces with Metroline to minimise any risk of interference in bus garage operations;
- All Hydrogen-specific safety testing requirements at all stages of the programme including any periodic testing and certifications that are ongoing for the whole contract duration;
- Delivery of a robust Training Plan including maintenance of the equipment and set up certificated training sessions for Metroline staff six people at a time when Metroline personnel are available for a minimum of one hour per session to be held at the site a minimum of four weeks before the first bus is delivered; and
- Delivery of a robust Emergency Preparedness Plan two weeks before on site testing of the kit is to commence.

2.17 Noise

2.17.1 The maximum permitted noise of any piece of equipment including production, compression, storage and dispensing shall not exceed 76 dB under normal HRS system operating conditions when measured at a distance of 1m in any direction from the external casing at a height of 1.5m from ground level. The Contractor shall measure equipment functioning at maximum performance experienced during operation to obtain this data.

2.17.2 Any audible warning device fitted shall not exceed 130 dB.

2.18 Climatic Conditions

2.18.1 All equipment shall be compatible with continuous operation in the full range of London's climatic conditions (from 40°C to minus 15°C).

2.19 Dispensers

2.19.1 Each dispensing station shall include a meter to allow the consumption of hydrogen for each refuelling operation to be recorded visually in addition to the automated data logging system as specified. An automatic vehicle identification system shall be included, sufficient to allow a collection of data required in the specification, section 2.10.

2.20 Decommissioning

2.20.1 If TfL require, at the end of the fuel supply contract period or due to premature termination because of the need to move site or return the site to Metroline, the responsibility for decommissioning the refuelling site will rest with the Contractor.

- 2.20.2 The Contractor will be responsible for removing all equipment and returning the site to its original condition including all civils installation works covered in the specification. The Contractor is to list any assumptions on leaving behind any structures, services, pipework, wiring, drainage and any other works that is assumed to remain.
- 2.20.3 An inventory of the assets must be submitted for approval by the Company prior to commencement of decommissioning works.
- 2.20.4 The terms of the lease shall prevail.
- 2.20.5 The Contractor shall provide LBSL with complete copies of any resale invoices that it may raise from the residual value of sale of non-reusable equipment and shall refund the proceeds to TfL within four weeks of receipt of payment, less a 30% sales/handling fee due to the Contractor.

2.21 Site Access

- 2.21.1 The Contractor will liaise with the bus operator (Metroline) to arrange access to the site during the site upgrade and other works on site at Perivale.
- 2.21.2 The site area required for Works including any temporary boundary fencing shall be defined by the Contractor prior to commencement on site.
- 2.21.3 The Contractor is expected to work collaboratively with LBSL with regards to any external communications relating to the site.

See Annex 1: Civils Specification and Appendix 2 PCI for more information.

2.22 Site Options

- 2.22.1 As an option the Contractor may be required to recommission the Facility at an alternative site of LBSL's choosing within the M25.

3. PROJECT PLAN/TIMESCALES

3.1 Timings

- 3.1.1 The Hydrogen Refuelling Station shall be completed and be ready to refuel buses no later than 12 months after date of tender award. LBSL understands that there are many factors that the tenderer will need to take into consideration with regard to the delivery timescales of the various work packages. LBSL will discuss timescales with the Contractor prior to contract award to achieve mutually agreed timescales and a Contractor's baseline programme. Earlier delivery is encouraged if achievable but is not essential.
- 3.1.2 However, the overall programme timescale of readiness for bus operations from buses no later than 12 months after date of tender award as scheduled below is non-negotiable to avoid contract funding loss and consequential costs being incurred by TfL on other contracts.
- 3.1.3 The start date of hydrogen bus operation from the site at Perivale will be confirmed by the LBSL at least 24 weeks in advance of commencement.
- 3.1.4 The Contractor shall submit a resource loaded detailed plan at the tender stage created in Microsoft Project which will then be baselined. The critical path and any assumptions made will need to be made clear.
- 3.1.5 The Contractor shall submit a high level 'plan on a page' showing the overall timescales and dependencies.
- 3.1.6 Table showing indicative project timescales:

Table 4 – Indicative project timescales

Activity	Date	Completion Criteria
Contract Award	29 Feb 2019	Signed contract
Mobilisation Period		Timescales as per winning bid Products and milestones as per winning bid Cost plan as per winning bid Technical approvals plan as per winning bid
Assembly of the HRS		Technical approvals as per the technical approvals plan
Site Upgrade		Technical approvals as per the technical approvals plan
On-site HRS Build	Complete 04 Mar 2020	Technical approvals as per the technical approvals plan

3.1.7 During the mobilisation phase LBSL will work with the successful Contractor to confirm and agree the definitive list of products to be produced and by when. Following mobilisation phase the Contractor will be required to submit the agreed products to LBSL for approval, responses to submissions will be completed within 5 working days of receipt.

3.2 Meetings

3.2.1 A nominated project lead from the Contractor shall be available as a minimum, two-weekly for progress meetings for all activities from mobilisation forward, in London at either the station site or LBSL's offices during the mobilisation phase until completion of the onsite works.

3.2.2 Requirements for attendance at face-to-face meetings throughout the remainder of the contract will be agreed following contract award but it is envisaged that these will be twice a year or at the request of either party.

3.2.3 The Contractor should also attend any other ad hoc meetings as may be required including meetings with nominated bus provider, local authority and Metroliner

3.3 Progress Reporting

3.3.1 The Contractor will provide actual and written periodic (4-weekly) reports on progress against the programme which may increase in intensity to weekly or as required at critical points in the delivery.

3.3.2 The Contractor will work with LBSL to define a technical approvals plan for the technical deliverables which will be agreed during the mobilisation phase.

3.3.3 The Contractor will be required to submit a periodic record of any Health and Safety incidents they have encountered. The Contractor will also have responsibility for general compliance under Construction Design Management (CDM) regulations.

3.4 Risk Log

- 3.4.1 The Contractor will provide a copy of their Risk Management Strategy.
- 3.4.2 The Contractor will submit a risk register (suggested template below) which will show indicative cost/time implications of the risks.

Risk ID	Description	Cause	Effect	Current Risk Level	Mitigation	Target Risk Level	Cost/Time Implications

- 3.4.3 The Contractor will keep the risk register updated on an ongoing basis. It is the responsibility of all personnel involved in the project from the Contractor's side to flag any risks that arise at any time to the Project Manager. The Contractor will also keep an issues log, to be updated and submitted on an ongoing basis.

3.5 Cost Management

- 3.5.1 The Contractor will be required to submit a cost plan showing the breakdown of costs across the duration of the project and will need to submit periodic Value of Work Done (VOWD) to enable LBSL to manage the accruals.

3.6 Change Control

- 3.6.1 Formal change control will be applied once project products/deliverables are approved and/or baselined.
- 3.6.2 The LBSL project manager will own and manage the Project Change Control process.

4. DELIVERABLES / MILESTONES

4.1 The dates for achievement of milestones are to be advised by the Contractor and baselined programme is to be agreed prior to contract award.

4.2 The table below details proposed milestones and completion criteria.

Table 5 – Proposed milestones and completion criteria.

Deliverable/Milestone	Completion Criteria	Programme Date
Concept Design Acceptance	Signed Certificate	To be advised and baselined prior to contract award
Detailed Design Acceptance	Signed Certificate	To be advised and baselined prior to contract award
Factory Acceptance Testing	Signed Certificate	To be advised and baselined prior to contract award
Enabling Works (stages)	Signed Certificate	To be advised and baselined prior to contract award
Installation	Signed Certificate	To be advised and baselined prior to contract award
Pre Commissioning Testing	Signed Certificate	To be advised and baselined prior to contract award
Commissioning	Signed Certificate	To be advised and baselined prior to contract award
Post Commissioning Testing	Signed Certificate	To be advised and baselined prior to contract award
In Operations Testing	Signed Certificate	To be advised and baselined prior to contract award
Handover	Signed Certificate	To be advised and baselined prior to contract award

4.3 Payment for milestones will be requested using a Contractor Payment Approval Form (see Appendix 3) which will be signed off by the Project Manager prior to invoices being sent to LBSL.

4.4 A snagging list will be kept for any outstanding items and the retention payment will only be made once this list is resolved.

- 4.5 Products submitted to LBSL will be quality checked and reviewed by a nominated suitably qualified lead from the Contractor prior to submission and this process will be documented in a Quality Management Plan.

5. DESIGN & QUALITY ASSURANCE

- 5.1 The design process has to be assured by the Contractor with Design Plan documents being approved by a named ICE or equivalent Chartered Engineer prior to submission.
- 5.2 The Design Plan must conform to the specification and includes but is not necessarily limited to the following design information:
- Proposed location and layout of installation with approximate dimensions
 - Design parameters/assumptions for loading, bearing capacity etc.
 - Risk management measures for fire, flood (site is Zone 3), security/prevention of Crime & Disorder
 - Access arrangements for maintenance
 - Evidence of consent for affected stakeholder
 - Draft Operational and Maintenance Manual
- 5.3 Upon acceptance of the Design Plan by TfL, the Contractor shall proceed to the Detailed Design Stage
- 5.4 The Contractor must submit detailed design drawings and specifications to TfL together with a design Certificate approved by the Chartered Engineer which references them and confirms that the design has been carried out in accordance with the Design Plan.
- 5.5 Requests to deviate from the accepted detailed design mid-build must be made in writing to the LBSL Project Manager & Engineering Manager. All requests should detail the rationale behind the request and assess any compliance impact to the original build specification, station performance, footprint, and build & maintenance costs. No deviations from the detailed design are to be made until written confirmation has been submitted by LBSL.
- 5.7 At the stage of "In Operations Testing" a fully independent appropriately qualified Chartered Engineer will be appointed by the contractor to produce a quality assurance report covering, but not limited to; all design and build specification requirements as set out in the contractor's detailed design submission, tender specification and compliance with BCGA CP33 & 41. Any non-conformity should be rectified prior to handover, unless documented authorisation of specification variation can be evidenced.
- 5.8 A quality assurance plan covering the individual aspects of the contractor's proposed solution, all items covered in specification 5.1 to 5.9, milestone dates and sign off procedure will be produced by the successful bidder. An overview of the quality assurance plan proposal should be provided by the bidders in their ITT, 2d Quality submission, (maximum 1 page), to be discussed at the tender negotiation stage. A full detailed assurance plan will be agreed between LBSL and the winning bidder.
- 5.9 A Final Operation and Maintenance Manual and Health and Safety File to be provided at handover.

ANNEXE 1. CIVILS SPECIFICATION

C1. Description of the works

- C1.1 The Contractor is to provide a hydrogen refuelling station on the site of an existing bus garage and diesel refuelling station in Perivale and supply hydrogen fuel for 10 years from the date of commissioning.
- C1.2 The Contractor is deemed to have visited the site to acquaint themselves fully with the layout, fabric and structure, take detailed measurements and note all substructures or complications (i.e. the Contractor shall understand the constraints of the work areas prior to submission of their tender which will be deemed to have allowed for all associated works).
- C1.3 Full details of the site are provided in the Pre-Construction Information (PCI) documents (see Appendix 2) and the fuel requirements are included in Section 2 of the Specification.
- C1.4 The Contractor shall be the Principle Designer and Principle Contractor under CDM regulations.
- C1.5 Utility connection requirements shall be from the equipment to the secure site boundary and the Contractor shall provide means by which LBSL can measure use of each utility.
- C1.6 Responsibility for provision of the following is included in scope:
1. Prelims
 2. Civils groundworks
 3. Any canopy works
 4. Connection to utilities and comms
 5. Providing fencing
- C1.7 Site security cameras / CCTV will be covered by Metroline.
- C1.8 All works and services will be site managed by the Contractor on site.

C2. General Constraints on how the Contractor Provides the Works

C2.1 Operational Site

- C2.1.1 The garage site is a 24-hour operational site run by Metroline Limited with its own specific security arrangements for vehicular access.
- C2.1.2 The process for signing in to the Perivale site is:
- Sign in at: Output area during days (0600-1800hrs) Pre-booking on is essential
- Sign in at: Output area during nights (1800-0559hrs) Pre-booking on is essential

C2.1.3 The site will remain in operation throughout the construction works and the Contractor must complete the works without adversely affecting operational activities at the site.

C2.1.4 If the bus operator refuses access or insists that the work cannot take place on site then the Contractor must obtain a signed note from the bus operator to this effect, or as a minimum details of who refused, how and when for what reason given.

C2.1.5 Activities at the site include but are not limited to refuelling, garage activities, parking, bus cleaning and office functions. Further details of existing operational activities and access requirements are provided in the supporting works documentation and Pre Construction Information (PCI) which can be found in Appendix 2.

C2.1.6 The Contractor is expected to produce drawings showing their proposed site compound acting within the constraints set out within the PCI (Appendix 2). Drawings should show any enabling works to be completed prior to HRS installation and for site set up during construction stage. If a delivered solution is being offered, a drawing should be produced showing the proposed operation of deliveries to site.

C2.2 Protection of Infrastructure

C2.2.1 Existing Infrastructure is to be protected against damage during the works.

C2.2.2 The Contractor is to undertake a condition survey with photographs of the areas affected by the works and agree it with the Company Project Manager and Metroline prior to commencement of the works. The Contractor is to reinstate all areas disturbed by the works or any of the works activities back to the condition recorded in the survey and agreed with the Company Project Manager and in accordance with all relevant Metroline requirements upon completion of the works.

C2.2.3 Existing infrastructure cannot be used to support any elements of the new installations. They must be designed to be independent of any other structures on the site.

C2.2.4 If earthworks are required for the installation of foundations or any other activity, the Contractor is responsible for the design of the foundations and responsible for locating and protecting against damage all services and drainage in the. Details of any proposed foundations must be submitted to TfL for approval.

C2.3 Adjacent London Underground (LU) Rail route

C2.3.1 LU have agreed in principal to overground distribution piping running along the property boundary on their side subject to method statements being agreed and to disturbed fencing being reinstated to their satisfaction.

C2.4 Lifting Operations

C2.4.1 Any proposals to use cranes or other lifting equipment on the site must be agreed with Metroline and Vanguard and also by TfL and LU as necessary depending on the proximity to the highway and/or railway.

C2.5 Noise

C2.5.1 The maximum noise permitted during the works shall comply with the Control of Noise at Work Regulations 2005. As far as reasonably possible the Contractor should give notice to the Bus Operator and other neighbours to the site of any substantive periods of prolonged high level, repetitive noise production.

C2.6 Location within the site

C2.6.1 A plan of the site is included in the Pre-Construction information (Appendix 2 PCI). The Contractor may propose locations for hydrogen refuelling facilities subject to the operational requirements of the garage being maintained. It is recognised that CP33 is a guidance document and there is scope to consider departures from the recommendations made in CP33 subject to designers risk assessments demonstrating that risks can be adequately mitigated.

C2.7 Services (Power, water and gas)

C2.7.1 Information regarding the services at the site is provided in the PCI (Appendix 2), however any information provided is as a guide and will need to be confirmed by the Contractor.

C2.7.2 Welfare facilities are available at this site and are offered by the operator Metroline subject to agreement to their working practices. If suppliers choose to provide their own welfare facilities they must ensure that they are compliant with CDM regulations.

C2.7.3 There is no existing provision for powering welfare facilities or plant located at the site; therefore any welfare facilities or plant required by the Contractor for construction/installation is to be either self-powered or run off a portable generator provided by the Contractor.

C2.8 Green Procurement

C2.8.1 The Contractor shall apply the principles of 'Reduce, Reuse, Recycle' and 'Buy Recycled' throughout the supply chain to the works and supplies from which it will generate waste during the on-site construction phase of the contract.

C2.8.2 The Scope of the existing contract price includes provision as necessary on site of waste streams and sub-streams:

1. The Contractor shall be required to maintain details of all waste transfer sites, used to service this Contract, that provide re-cycling, recovery or treatment facilities. Auditable records shall be forward to the Company at specified intervals or made available on request.
2. The Contractor shall provide regular reports, the frequency of which will be agreed by with the Company, detailing volumes and percentages of re-cycled, recovered and treated materials processed through the waste transfer sites.
3. The Contractor shall routinely provide information on the carbon footprint associated with the service.
4. The Contractor must actively support all initiatives to divert waste from landfill in particular TfL's current plan that aims for all waste to be diverted from land-fill by

2018, and to recycle material wherever possible without adversely impacting upon the contract.

5. The Contractor agrees to work in identifying new opportunities for moving management of wastes in line with the waste hierarchy (re-using, recycling, recovery and disposal to land-fill).

C2.8.3 Skips, compactors, chemical storage and other containers streams are to include:

- Mixed commercial waste
- Hazardous waste
- Batteries
- General construction waste
- Paints and tins
- WEE
- Fluorescent tubes
- Greases and grease containers
- Mixed light industrial waste
- Oil contaminated rags
- Solvents
- Timber
- Spoil

C2.8.4 Bulk Waste Removal streams are to include:

- Spoil
- Clay
- Top Soil
- Mixed construction
- Tarmac/ roadway
- Wood
- Vegetation

C2.8.5 Other waste, e.g. oils

C3. Contractor's design

C3.0.1 Design will cover all elements including the civils and the refuelling infrastructure.

C3.0.2 An independent certifier will be appointed by the Contractor to carry out all duties for commissioning.

C3.0.3 The Contractor's design of the installation is to be in accordance with the NBS specification and is to comply with the following British Compressed Gases Association (BCGA) Code of Practice Guidance documents:

CP33 : The Bulk Storage of Gaseous Hydrogen at Users' Premises. Revision 1:2012

CP39 : In-service Requirements of pressure equipment (gas storage and gas distribution systems). Revision 2: 2017

CP40 : Security Requirements for Industrial, Medical and Food Gases. Revision 1:2016

CP41 : The Design, Construction, Maintenance and Operation of Filling Stations Dispensing Gaseous Fuels. Revision 1:2016

Where there is no relevant British Guidance or standards, appropriate documentation from other countries can be substituted.

C3.0.4 The following clarifications are provided to confirm issues where CP33 offers flexibility.

- Fencing is to be provided as per CP33
- Any proposed departures for CP33 guidance must be supported by designers risk assessments and made clear in the Concept Design submission
- TfL will be the owner of the new installation but the Contractor shall carry out the following activities on their behalf:
 - Training of user personnel (see section 2.13 of the Specification)
 - Provision of a contact should the user have questions
 - An emergency telephone number and response
 - Explaining and checking that user personnel understand their responsibilities under the Pressure Systems Safety Regulations (6)

C3.1 Concept Design

C3.1.1 The concept design shall be developed in close collaboration with all key stakeholders and presented to the Project Manager for approval 4 weeks prior to the commencement of detailed design.

C3.1.2 The Concept design shall include but not be limited to details of:

- The proposed location of all the elements of the new installation showing key dimensions and clearances and showing all pipework and store/generation units
- Any structures required to support above ground pipework with design parameters
- Any geotechnical assumptions made regarding the existing site such as allowable bearing pressure on existing ground or hardstanding and/or proposed testing
- Any proposed departures from CP33 and CP41 advice together with designers risk assessments
- Any foundations to be installed and associated trial hole info to confirm statutory undertakers plant locations
- Any requirement for existing services (electricity, gas and water) to be upgraded, diverted and/or extended to serve the new installation.
- A detailed programme for all elements of the installation
- Any works proposed to the existing canopy including any required lighting upgrade
- Proposed working hours

- Security arrangements including the provision and installation of a CCTV camera to tie into the existing system at the site
- Permanent lighting to permit access to the unit for maintenance/repair during the hours of darkness
- Re-filling plan for off site production options including a swept path drawing for delivery of hydrogen to site and removal of units.
- Details of proposed design assurance procedures
- The scope of annual safety checks and the Written Scheme of examinations and replacements that will take place every 5 years as per Appendix 2 of CP33.

C3.2 Detailed Design

C3.2.1 The detailed design shall be carried out in accordance with National Building Specification (NBS).

C3.3 Design Assurance

C3.3.1 The design shall be prepared, checked and approved to professionally recognised design quality assurance procedures by appropriately qualified and experienced engineers.

C3.4 Construction Phase Plan

C3.4.1 The Contractor is required to prepare and submit a Construction Phase Plan 4 weeks before construction commences outlining the following:

- How the proposed design will be built, with method statements to outline how major elements of the works would be undertaken.
- Confirmation that the existing refuelling operational capacity at the site will not be affected during enabling or construction works.
- Provision for loading/unloading materials, site storage etc.
- The route to and away from the site for muck away vehicles with materials.
- A protocol for managing any vehicles that need to wait for access to the site.
- Signing system for works traffic.
- Site access warning signs that may be required in adjacent roads.
- How any new statutory undertaker connections will be managed within the site (if required).
- Storage of plant and materials.
- Measures for the laying of dust, suppression of noise and abatement of other nuisance arising from construction works.
- Measures for ensuring that all voids or ledges left at the end of each construction shift are left safe for others.
- Location of all ancillary site buildings.
- Security and means of enclosure of the site.
- The parking of vehicles of the site operatives and visitors.

C3.4.2 The Construction Phase Plan will be submitted to the Project Manager and Metroline Operations Manager for written agreement. The Construction Phase Plan does not remove the requirement to prepare or maintain other Health & Safety related documents.

C3.5 Site Issues

C3.5.1 The Contractor shall submit details of any alterations that may be required to any existing structures (including lighting) to enable the introduction of the hydrogen supply and for it to be used for the 10 year contract period. Asbestos may be present.

C3.6 Ongoing Inspection and Maintenance

3.6.1 The Contractor shall carry out the periodic examination and maintenance including annual safety checks in accordance with the Written Scheme of examination (examinations and replacements) every 5 years as listed in Appendix 2 of CP33 for a 10 year period after installation on behalf of LBSL.

C4. Health and safety

C4.1 The Contractor shall identify and mitigate all health and safety risks associated with the build, commissioning, operation and decommissioning of the system as far as it depends on them.

C4.2 The following specific risks shall be addressed in the Contractors Safety Plan:

- Overnight bus parking
- Security from trespassers
- Vandalism
- Arson
- Flooding (See section 2.14.2)
- Terrorist risk
- Trained staff failing to follow procedures.
- Untrained staff coming into contact with the refuelling depot.
- Accident damage
- Accidental hydrogen release
- Bus interface and associated risks of accidental hydrogen release due to poor compatibility

C4.3 Contractors are required to provide the Company a register of Health and Safety risks associated with the refuelling facility during maintenance and operation and an outline mitigation strategy for each risk.

C4.4 Contractors shall propose an ongoing process, with periodic reviews (throughout design build and operation phases) through which all health and safety risks will be reduced as far as reasonably practical.

C4.5 The Contractor shall provide the relevant safety information to any regulatory bodies to meet the agreed milestones throughout the project.

C5. Decommissioning and Removal/Disposal

C5.1 The Contractor is to remove the installation from site at the end of the operational period ten (10) years and arrange for disposal and restoring of the site to its original condition. The proceeds of sale shall be passed to LBSL.

C6. Standards & Regulations

C6.1 This list is not exhaustive but refers to the key technical and assurance standards to be considered for this project in addition to the BCGA Code of Practice Documents (or equivalent) referred to in the Specification above.

C6.2 Statutory Regulations:

- Building Act (1984) and documents referenced therein
- Building Regulations (Approved Documents) (2000) and subsequent amendments
- The Building Regulations 2000 - Fire Safety – Approved Document B 2
- Climate Change & Sustainable Energy Act (2006)
- Construction (General provisions) Regulations 1961
- Construction (Design and Management) Regulations 2015
- The Construction (work place) regulations 1966
- Disability Discrimination Act (1995) and subsequent amendments
- Crime and Disorder Act 2014
- Health & Safety at Work Act 1974
- Sustainable & Secure Buildings Act (2004)
- The Control of Noise at Work Regulations 2005
- Work at heights regulations 2005 (HSE)
- Lifting Operations & Lifting Equipment Regulations 1998
- The control of noise (Code of Practice for construction and open sites, England) order 2015
- Control of Substances Hazardous to Health Regulations (COSHH) 2002
- The Regulatory Reform (Fire Safety) Order 2005
- The Workplace (Health, Safety and Welfare) Regulations 1996
- Electricity at Work Regulations 1989
- The Gas Safety (Installation and Use) (Amendment) Regulations 2018
- The Environment Protection (The Ozone-Depleting Substances) Regulations 2015

C7. Risk Assessments

The Risk Assessments need to be considered:

<i>Risk Assessments</i>	<i>Tick</i>
Leptospirosis	<input type="checkbox"/>
Manual Handling	<input type="checkbox"/>
Pigeon Droppings	
Access / Egress	<input type="checkbox"/>
Dust	<input type="checkbox"/>
Hot Works	<input type="checkbox"/>
Working at Heights	<input type="checkbox"/>
Hand Held Tools	<input type="checkbox"/>
Working on Roofs	<input type="checkbox"/>
Mobile Towers	<input type="checkbox"/>
Electrocution	<input type="checkbox"/>

C8. COSHH Requirements

<i>COSHH Required</i>	<i>Tick</i>
All Hazardous Materials on site.	<input type="checkbox"/>

C9. Permit Requirements

Working on LU land ; Method Statement	<input type="checkbox"/>
Approval of installation on LU Land	<input type="checkbox"/>

C10. Environmental Issues

<i>Environmental Issues</i>	<i>Tick</i>
Giant Hogweed adjacent to site on river bank	<input type="checkbox"/>
Asbestos Material Risk Assessment	<input type="checkbox"/>

APPENDICES

Appendix No.	File Name	File Type
1	02.02 tfl_scp_001600 Vol 2 ITT Appx 1 JIVE_MEHRLIN_Data_Points_Lists_Final f.3	pdf
2	02.02 tfl_scp_001600 Vol 2 ITT Appx 2 HRS PCI v4 f.3	pdf
3	02.02 tfl_scp_001600 Vol 2 ITT Appx 3 CPAF f.3	pdf

TfL scp 001600 HRS Technical Specification Matrix						
	All TSM references to hydrogen storage quantities below can consist of trailer and/or static storage combined.					
Reference	Total Daily Demand	Units/Description	Mandatory (Pass/Fail), Scored or Not scored	Requirement	How Response Was Scored	Contractor's Response
TSM1	Maximum Daily Output of hydrogen from dispenser (24hrs)	kg	Scored	≥ 380	Inverse Proportion Higher is Better	1900 kg is the Maximum Daily Output. This with full redundancy of HRS equipment. To achieve this capacity supply container will have to be swapped 2 times during the 24 hours.
TSM2	Minimum Daily Output of hydrogen from dispensers (24hrs)	kg	Scored	BP	Inverse Proportion Lower is Better	0 kg. The HRS does not have a minimum Daily Output restriction and will be in standby mode.
TSM3	Number of buses HRS can refuel within daily 8 hour window	number	Scored	≥ 17	Inverse Proportion Higher is Better	With the proposed solution a minimum of 33 buses can be refueled within the 8 hour window. This based on a 20 kg fill per bus and a single swap of supply container per day.
TSM4	Maximum number of buses HRS can refuel within daily 24 hour window daily	number	Scored	≥ 17	Inverse Proportion Higher is Better	With the proposed solution a maximum of 95 buses can be refueled within a 24 hour window. This based on a 20 kg fill per bus. The warranty and service calculation is based on fueling of 17 buses per day. Station availability TSM14 is also based on 17 buses per day.
Station Performance						
TSM5	Required Fill Pressure (at 15 degrees C)	bar	Mandatory (Pass/Fail)	350	N/A	350bar
TSM6	Target daily average refuelling time for 17.8kg refill of a 27Kg storage tank (including connection / leak test)	minutes	Mandatory (Pass/Fail) and Scored	≤ 6.00	Pass/Fail and will score maximum if ≤ 5.00, or zero if ≥ 5.00	<5 minutes, assuming type 3 tanks on bus.
TSM7	Refuelling window (time to refuel minimum of 17 buses)	hours / 364 days	Scored	≤ 8	≤ 5.00, or zero if	1.5 hours. With a fueling speed of 12 buses per hour, the 17 buses can be refueled within 90 minutes. Assuming equal and distributed use of both dispensers.
TSM8	Number of dispensers (minimum)	Number	Mandatory (Pass/Fail)	≥ 2	≥ 5.00	2
TSM9	Ability to fuel buses two buses simultaneously	Yes/No	Mandatory (Pass/Fail)	Yes	N/A	Yes. Each dispenser is linked to a dedicated station module (compressor, cooling, and control unit) ensuring fully simultaneous and independent fueling capability.
TSM10	Ability to source and deliver HP hydrogen to station within 12hr notice sufficient to meet daily demand	Yes/No	Mandatory (Pass/Fail)	Yes	N/A	Yes. Hydrogen production and distribution center is located less than 2 hours driving away from depot. A filled hydrogen trailer will be in standby at the production site and will be transferred to the depot on a daily basis. The Maximum daily delivery must be within the agreed maximum capacity.
TSM11	Station remote monitoring of performance and faults	Yes/No	Mandatory (Pass/Fail)	Yes	N/A	Yes. The HRS are linked into our 24/7 remote monitoring system and supervised from our central control room.
TSM12	Overall time to complete a 27kg, 350bar fill from empty (including connection / leak test)	minutes	Scored	BP	Inverse Proportion Lower is Better	7 minutes. The fueling process is limited by the maximum flow rate.
TSM13	Maximum number of back-to-back fills	Number	Scored	None set	Inverse Proportion Higher is Better	30 buses can be filled back to back. The capacity is limited by the hydrogen available on the station and can be expanded by increasing the supply. Higher back to back capacity can be achieved with additional supply.
Refuelling Procedure Requirements						
TSM14	Station availability required (defined as the hydrogen dispensers immediately ready to dispense hydrogen) during the eight hour refuelling window of 19:00 to 03:00	Percentage	Mandatory (Pass/Fail) and Scored	≥ 99%	Pass/Fail and will score maximum if ≥ 99.90%, or zero if ≥ 99.00% and ≤ 99.90%	99.9%. This is the technical availability of the equipment, ensuring at least 50% of rated fueling speed (6 buses per hour, 5 min each). Warranty cost is based on fueling of 17 buses per day. Warranty and service cost will have to be adjusted in case of future expansion of bus fleet.
TSM15	Hydrogen fuel quality will be consistent with SAE J2719	Yes/No	Mandatory (Pass/Fail)	Yes	N/A	Yes
TSM16	Geometry of the refue ling nozzle interface will be consistent with SAE J2600	Yes/No	Mandatory (Pass/Fail)	Yes	N/A	Yes, details will have to be aligned with the Bus supplier to ensure safe fueling process and communication between bus and HRS.
TSM17	Refuelling nozzle TK16 high flow connector or suitable to alternative to optimize fueling speed (to be mutually agreed for with bus supplier).	Yes/No	Info	Yes	N/A	Yes, fueling speed needs to be validated with the bus supplier. All relevant devices (filters, check valves, piping etc) on the bus need to be designed for high flow / minimal flow restriction.
TSM18	Refuelling protocol will be consistent with SAE J2601-2	Yes/No	Mandatory (Pass/Fail)	Yes	N/A	Yes, details will have to be aligned with the Bus supplier to ensure safe fueling process and communication between bus and HRS.
TSM19	Required peak refuelling flow rate (to be achieved in co-ordination with bus manufacturer).	grams H2 / second	Scored	BP	Inverse Proportion Higher is Better	70 grams H2 / second. Components on the bus may restrict the flow to below this value.
Storage Requirements						
TSM20, TSM24 and TSM 31	Minimal dispensable hydrogen without any onsite compression equipment operational assuming station fully stocked. Can be made up of combination of high and low pressure storage.	1 day of dispensable daily maximum demand, without any additional compression, i.e. 380kg (Table 1) Note: 5 minute target average fueling time does not apply in this failure scenario, slow fill acceptable.	Mandatory (Pass/Fail)	≥ 380 Kg	N/A	The station setup is designed / made up by two individually independent station modules. This secures ability to refuel although one part of the solution could potentially be out of operation (service or breakdown).
TSM21, TSM25, TSM32	Minimum Total storage capacity of solution (onsite + offsite). = High Pressure Storage + Low Pressure Storage	Total of days of dispensable daily demand, 3 days for delivered, 2 days for variant bid. Please see specification part 2 - 2.4.1 Total is comprised of 1 day at maximum demand rate plus 2 days at average demand rate. i.e. 990Kg	Mandatory (Pass/Fail)	≥ 680Kg (2 days) or ≥ 990 Kg (3 days)	N/A	816 kg of total storage capacity. A minimum of 1 day dispensable hydrogen, 380kg, will be constantly maintained onsite at all times for redundancy in the event of supply chain issues. Also additional hydrogen is stored at the central site, less than 2 hours away. Ensuring 2 days capacity onsite and additional backup close by.
TSM22, TSM26 and TSM33	Redundant on-site compression	Sufficient so the HRS can compress a maximum daily demand of 380Kg if one compressor is offline for any reason	Mandatory (Pass/Fail)	Yes or N/A	N/A	Yes. Both compression, hydrogen cooling, and control is redundant.
TSM23, TSM 29 and TSM37	High pressure storage pressure	bar	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	500bar
TSM27 and TSM 34	Redundant on-site production	Required only if needed to meet Required Availability of the HRS (see TSM14 above)	Not scored	Yes/No	N/A	N/A. Solution is based on delivered hydrogen.
TSM28	Not used					
TSM30	Not used					
TSM35	Not used					
TSM36	Not used					
TSM38	Not used					
TSM39	Not used					
0.1 Equipment Life Expectancy						
TSM40	Compression equipment life expectancy (only if applicable)	Years	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	20 Years. Compression equipment will be maintained regularly. Larger overhaul to be expected after 10 years.
TSM41	Dispensing equipment life expectancy	Years	Scored	BP	Inverse Proportion Higher is Better	20 Years. Dispenser wear parts (hose and nozzle) need to be exchanged regularly according to supplier specifications.

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	All TSM references to hydrogen storage quantities below can consist of trailer and/or static storage combined.					
TSM42	Whole station life expectancy including any fixed or mobile hydrogen storage, such as tube trailers.	Years	Scored	BP	Inverse Proportion Higher is Better	20 Years
TSM43	Membrane life expectancy (only if applicable)	Years	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	5 Years. Compressor diaphragma will be exchanged as part of the preventive maintenance program.
TSM44	Production equipment life expectancy (only if applicable)	Years	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	N/A
Proposed Footprint						
TSM45	Combined footprint of secure areas required to contain production, compression and storage equipment (excluding dispensers).	m2	Scored as per Module 2b item 3.	BP	Scored as per Module 2b item 2.	208 m2
TSM46	Footprint of area currently used as overnight bus parking no longer useable for overnight bus parking due to contractors solution firewalls may be used).	m2	Scored	BP	Inverse Proportion Lower is Better	0 m2, none of the area indicated as bus parking of the provided drawing will be utilized.
TSM47	Maximum height of equipment (Excluding lightning protection and vents)	Metres	Scored	BP	Height provided = maximum score. Not provided = zero	5 meters is the maximum height of the equipment, excluding the vents.
2.7 Use of Utility Sources						
Any efficiency assumptions used in the response below must relate to the design concept proposed in the tender and reflect the average daily demand for hydrogen as defined in the specification. Utility consumption rates required are for the entire hydrogen production, compression, storage and dispensing and any other demand. Energy for building heating and lighting is excluded. The consumption per kg of hydrogen dispensed at the pump.						
TSM48	Natural Gas	m3 per kg H2 dispersed	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	N/A
TSM49	Electricity	kWh/kg H2 dispersed	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	1,2 kWh/kg H2 dispersed. This includes cooling, compression, and dispensing at the bus depot.
TSM50	Water	Litres/kg H2 dispersed	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	N/A
TSM51	Other	Other/1 kg H2 dispersed	Scored	BP	A value or N/A scores maximum. Blank or "No" responses will score zero.	N/A
2.8 Technical Support						
TSM52	Telephone helpline available for issue reporting	24hrs day / 7 days a week/ 364 days a year (excl Christmas Day)	Mandatory (Pass/Fail)	Yes/No	N/A	Yes
TSM53	Remote response time to resolve faults, warnings, any dashboard "reds"	<2 hours	Scored	≤ 2	Inverse Proportion Lower is Better	<2 hour
TSM54	Physical response time to resolve faults, warnings, any dashboard "reds"	<6 hours including the 2 hours above	Scored	≤ 6	Inverse Proportion Lower is Better	<6 hours, this only when both redundant systems are inoperable.
2.9 Well to Tank Environmental Impact						
TSM55	Green energy certificate option	Optional	Not scored	N/A	N/A	
TSM56	Biogas energy certificate option	Optional	Not scored	N/A	N/A	
For completion of items TSM57a to TSM57i, Contractors must assume a use of 380kg per day for this question						
TSM57a	Total exhaust mass flow rate	kg/sec	Scored and weighted as shown in Module 2d Q6	BP	For TSM 57a to TSM57i items see Module 2d Q6	0. The provided solution does not have any exhausts during operation. Exhaust related to the transportation of hydrogen are included in the well-to-tank emissions, section 2.D.
TSM57b	Carbon Dioxide	kg per kg H2		BP		0 kg per kg H2
TSM57c	Carbon Monoxide	mg per kg H2		BP		0 mg per kg H2
TSM57d	Methane	mg per kg H2		BP		0 mg per kg H2
TSM57e	Oxygen	mg per kg H2		BP		0 mg per kg H2
TSM57f	Nitrogen Oxides	mg per kg H2		BP		0 mg per kg H2
TSM57g	Particulate Matter (10 micrometres or less)	mg per kg H2		BP		0 mg per kg H2
TSM57h	Any other emissions	mg per kg H2		BP		0 mg per kg H2
TSM57i	Chimney stack height	Metres		BP		N/A
2.10 Data Reporting						
TSM58	Of Table 3 Automated Data Requirements, how many Data points can you supply? See embedded linked document provides the full list. See Table 3, Specification Part 2.	Count of Listed Items	Scored	BP	Inverse Proportion Higher is Better	27, data points related to onsite production are not provided.

Specification Compliance Matrix

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Doc No.	Item	Heading	Compliant/Non-compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1	Organisational Overview	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.1	Transport for London (TfL)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.1.1	Transport for London (TfL)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.1.2	Transport for London (TfL)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.1.3	Transport for London (TfL)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.2	Business Unit	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.2.1	Business Unit	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.2.2	Business Unit	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.3	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.3.1	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.3.2	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1.3.3	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	1	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	a	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	b	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	6	Standard and Variant Bids	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2	Design Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.0.1	Design Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.0.2	Design Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.0.3	Design Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.0.4	Design Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.0.5	Design Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1.1	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1.2	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1.3	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1.4	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1.5	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.1.6	Total Daily Demand	Compliant
HRS 001600 VOL 2Pt2 Spec v14.1	2.1.7	Total Daily Demand	
HRS 001600 VOL 2Pt2 Spec v14.0	2.2	Minimum Station Performance Requirements	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.3	Minimum Refuelling Procedure Requirements	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.4	Minimum Storage Requirements, Delivered	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.4.1	Minimum Storage Requirements, Delivered	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.4.2	Variant Bids (if used)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.4.4	Variant Bid Option 1	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.4.5	Variant Bid Option 2	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.5	Equipment Life Expectancy	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.5.1	Equipment Life Expectancy	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.6	Proposed Footprint	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.6.1	Proposed Footprint	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.7	Use of Utility Sources	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.7.1	Use of Utility Sources	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.7.2	Use of Utility Sources	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.7.3	Use of Utility Sources	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.7.4	Use of Utility Sources	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.7.5	Use of Utility Sources	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.8	Technical Support	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.8.1	Technical Support	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.8.2	Technical Support	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.8.3	Technical Support	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.8.4	Technical Support	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.1	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.2	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.3	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.4	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.5	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.6	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.7	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.8	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.9	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.9.10	Well to Tank Environment Impact	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.10	Data Reporting	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.10.1	Data Reporting	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.10.2	Data Reporting	Compliant

Specification Compliance Matrix
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Doc No.	Item	Heading	Compliant/Non-compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.11	Hydrogen Purity	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.11.1	Hydrogen Purity	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	212.1	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.2	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.3	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.4	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.5	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.6	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.7	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.12.8	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.13	Training	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.13.1	Training	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.13.2	Training	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.13.3	Training	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.14	Planning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.14.1	Planning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.14.2	Planning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.15	Aesthetics	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.15.1	Aesthetics	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.15.2	Aesthetics	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.15.3	Aesthetics	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.15.4	Aesthetics	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.16	Collaboration with Stakeholders	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.16.1	Collaboration with Stakeholders	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.16.2	Collaboration with Stakeholders	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.16.3	Collaboration with Stakeholders	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.16.4	Collaboration with Stakeholders	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.16.5	Collaboration with Stakeholders	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.17	Noise	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.17.1	Noise	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.17.2	Noise	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.18	Climatic Conditions	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.18.1	Climatic Conditions	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.19	Dispensers	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.19.1	Dispensers	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.20	Decommissioning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.20.1	Decommissioning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.20.2	Decommissioning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.20.3	Decommissioning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.20.4	Decommissioning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.20.5	Decommissioning	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.21	Site Access	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.21.1	Site Access	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.21.2	Site Access	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.21.3	Site Access	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.22	Site Options	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	2.22.1	Site Options	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3	Project Plan/Timescales	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.1	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.2	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.3	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.4	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.5	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.6	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.1.7	Timings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.2	Meetings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.2.1	Meetings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.2.2	Meetings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.2.3	Meetings	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.3	Progress Reporting	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.3.1	Progress Reporting	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.3.2	Progress Reporting	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.3.3	Progress Reporting	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.4	Risk Log	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.4.1	Risk Log	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.4.2	Risk Log	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.4.3	Risk Log	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.5	Cost Management	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.5.1	Cost Management	Compliant

Specification Compliance Matrix

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Doc No.	Item	Heading	Compliant/Non-compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.6	Change Control	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.6.1	Change Control	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.6.2	Change Control	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4	Deliverables/Milestones	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4.1	Deliverables/Milestones	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4.2	Deliverables/Milestones	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4.3	Deliverables/Milestones	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4.4	Deliverables/Milestones	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	4.5	Deliverables/Milestones	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.1	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.2	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.3	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.4	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.5	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.6	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.7	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.8	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	5.9	Design & Quality Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	Annexe 1	Civils Specifica ion	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1.1	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1 2	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1 3	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1.4	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1 5	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1.6	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1.7	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C1 8	Description of he works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2	General Constraints on how the Contractor Provides the Works	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1.1	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1.2	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1.3	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1.4	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1.5	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.1.6	Operational Site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 2	Protec ion of Infrastructure	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.2.1	Protec ion of Infrastructure	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.2.2	Protec ion of Infrastructure	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.2.3	Protec ion of Infrastructure	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.2.4	Protec ion of Infrastructure	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 3	Adjacent London Underground (LU) Rail route	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 3.1	Adjacent London Underground (LU) Rail route	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.4	Lifting Operations	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.4.1	Lifting Operations	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 5	Noise	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 5.1	Noise	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.6	Location within he site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.6.1	Location within he site	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.7	Services (power, water and gas)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.7.1	Services (power, water and gas)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.7.2	Services (power, water and gas)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2.7.3	Services (power, water and gas)	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 8	Green Procurement	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 8.1	Green Procurement	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 8.2	Green Procurement	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 8.3	Green Procurement	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 8.4	Green Procurement	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C2 8.5	Green Procurement	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3	Contractor's Design	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 0.1	Where British Guidance Documents and Standards are listed below, equivalent similar documentation from other countries can be substituted	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 0.2	Where British Guidance Documents and Standards are listed below, equivalent similar documentation from other countries can be substituted	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 0.3	Where British Guidance Documents and Standards are listed below, equivalent similar documentation from other countries can be substituted	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 0.4	Where British Guidance Documents and Standards are listed below, equivalent similar documentation from other countries can be substituted	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.1	Concept Design	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.1.1	Concept Design	Compliant

CONTRACT

Specification Compliance Matrix
TfL SCP 001600
Hydrogen Refuelling Station

Doc No.	Item	Heading	Compliant/Non-compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.1.2	Concept Design	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 2	Detailed Design	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 2.1	Detailed Design	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 3	Design Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 3.1	Design Assurance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.4	Construction Phase Plan	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.4.1	Construction Phase Plan	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.4.2	Construction Phase Plan	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 5	Site Issues	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3 5.1	Site Issues	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C3.6	Ongoing Inspection and Maintenance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	3.6.1	Ongoing Inspection and Maintenance	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C4	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C4.1	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C4 2	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C4 3	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C4.4	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C4 5	Health and Safety	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C5	Decommissioning and Removal/Disposal	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C5.1	Decommissioning and Removal/Disposal	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C6	Standards & Regulations	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C6.1	Standards & Regulations	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C6 2	Standards & Regulations	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C7	Risk Assessments	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C8	COSHH Requirements	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C9	Permit Requirements	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	C10	Environmental Issues	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	Appendix 1	Data Points	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	Appendix 2	PCI	Compliant
HRS 001600 VOL 2Pt2 Spec v14.0	Appendix 3	Contractor Payment Approval Form	Compliant

SCHEDULE 2

KEY PERSONNEL INFORMATION

[REDACTED]

[REDACTED]

[REDACTED]



Nel Hydrogen A/S
Vejlevej 5
DK-7400 Herning
Denmark
T +45 96 27 56 00
W nelhydrogen.com

[REDACTED]

[REDACTED]

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SCHEDULE 3
HYDROGEN PRICES

1. PRICE FOR HYDROGEN

Year (assumes Year 1 is construction)	Delivered hydrogen price	Delivered hydrogen price	If RTFO is received, delivered hydrogen price
From first HRS fill to end y2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
Average			

- 1.1 The price of hydrogen excludes the price to construct the Refuelling Facility.
- 1.2 The price of hydrogen excludes any applicable UK tax liability, which shall be payable by the Company.
- 1.3 The Contractor will notify the Company on a monthly basis of the value of any Renewable Transport Fuel Obligation (RTFO) payment available to Contractor or any subcontractor of the Contractor.
- 1.4 If:
 - 1.4.1 the Contractor (or any subcontractor of the Contractor) is entitled to receive an RTFO payment; and
 - 1.4.2 the sum of the Delivered hydrogen price shown in the table above plus such RTFO payment
 the price payable by the Company for Delivered Hydrogen
- 1.5 Should the Company choose to novate the contract

- 1.6 The Company has accepted that the production of hydrogen [REDACTED]
- 1.7 Normally the point of sale for a taxed fuel is where the credit is available. Since hydrogen is not taxed this process still needs clarification. LBSL will own the hydrogen dispensing equipment, so this is for the avoidance of doubt the right but the rights to the Renewable Transport Fuel Obligation (RTFO) will still be Nel's.

MAINTENANCE FEES

Contract Specification Reference	Description	Price
Contract Specification/ Addendum 1 item 1	1. Contractual Years 1 to 3 inclusive - "Warranty".	[REDACTED]
Contract Specification/ Addendum 1 item 2	2. Contractual Years 4 and 5 inclusive - "Extended Warranty".	[REDACTED]
Contract Specification/ Addendum 1 item 3	3. Years 6 - 10 inclusive - "Excess Payment Extended Warranty".	[REDACTED]
Contract Specification/ Addendum 1 item 3	All 3rd party routine inspections and tests required are to be arranged and monitored by NEL in alignment with the Maintenance Schedule.	[REDACTED]
Hourly rate	Skill and experience - trained to carry out service level 5: Higher technical education (marine engineer, electrician master or dedicated HFS service technician with more than 2 years experience).	[REDACTED]

2. **REVIEW OF HYDROGEN PRICE**

2.1 The Hydrogen Price will be reviewed on each Review Date during the Supply Period and if upon any such review the Hydrogen Index Figure last published before the date of review shows an increase or decrease in relation to the Hydrogen Index Figure last published before the Relevant Date the price then in force under the terms of this Contract will be increased or decreased (as the case may be) in the same proportion. For the purposes of this paragraph 2 of **Schedule 3** the following expressions shall have the following meanings;

2.2 "Hydrogen Index Figure" means the monthly figure given by the Consumer Prices Index;

2.3 "Relevant Date" means:

2.3.1 in the case of the first review the Effective Date;

2.3.2 for each subsequent review the date of the previous review;

2.4 "Consumer Prices Index" means the Consumer Prices Index for all items which is published in the United Kingdom in the Monthly Digest of Statistics by the Office for National Statistics or any replacement of it.

3. **REVIEW OF MAINTENANCE FEE**

3.1 The Maintenance Fee will be reviewed on each Review Date during the Supply Period and if upon any such review the Index Figure last published before the date of review shows an increase or decrease in relation to the Maintenance Index Figure last published before the Relevant Date the price then in force under the terms of this Contract will be increased or decreased (as the case may be) in the same proportion. For the purposes of this paragraph 3 of **Schedule 3** the following expressions shall have the following meanings;

3.2 "Maintenance Index Figure" means the monthly figure given by the Consumer Prices Index;

3.3 "Relevant Date" means:

3.3.1 in the case of the first review the Effective Date;

3.3.2 for each subsequent review the date of the previous review;

3.4 "Consumer Prices Index" means the Consumer Prices Index for all items which is published in the United Kingdom in the Monthly Digest of Statistics by the Office for National Statistics or any replacement of it.

4. **REVIEW OF MINIMUM ANNUAL AMOUNT**

4.1 The Minimum Annual Amount will be reviewed on each Review date during the Supply Period and the Minimum Annual Amount will be reset upwards or downwards to reflect changes such as route changes or bus numbers. In the event of such reset the Hydrogen Price can be further reviewed (in addition to the review at paragraph 2 of this Schedule and amended to reflect the impact of the change to the Minimum Annual Amount). Any disputes will be resolved in accordance with **Clause 42**.

SCHEDULE 4

INSTALLATION CERTIFICATE

This certificate is issued to confirm that the Hydrogen Refuelling Facility as specified in the CONTRACT **[Ref tfl-scp-001600]** "Hydrogen Refuelling Facility and Hydrogen Supply Agreement relating to premises at Perivale Garage, Alperton Lane, Greenford, London" between London Bus Services Limited and Nel Hydrogen A/S is mechanically complete and is ready for commissioning to begin production of hydrogen.

The Start-up Period for the Contract shall begin at the date of signature of this Installation Certificate.

Name: _____

Date: _____

Title:

Name: _____

Date: _____

Title:

SCHEDULE 5

COMPLETION CERTIFICATE

Ref **tfl-scp-001600** "Hydrogen Refuelling Facility and Hydrogen Supply Agreement relating to premises at Perivale Garage, Alperton Lane, Greenford, London" between London Bus Services Limited and **Nel Hydrogen A/S**.

The Refuelling Facility has been installed, has been sufficiently tested and is fully operational in accordance with the Contract. The Refuelling Facility can operate safely and the Hydrogen can be Delivered to the Company in a safe and effective manner.

Name: _____

Date: _____

Title:

Name: _____

Date: _____

Title:

Name: _____

Date: _____

SCHEDULE 6

PROCEDURE COVERING VARIATIONS FROM CONTRACT

1. In the event that the Company may wish to introduce or consider the introduction of, or the Contractor wishes to have consideration given to the introduction of any variation whatsoever from the Contract the following procedure shall be applied:
 - 1.1 in cases where the Company is considering the introduction of a variation(s), whether at the request of the Contractor or not, but does not wish to proceed until the effect if any on the Hydrogen Price and/or the Works Contract Sum and the Pricing Schedule (including the adjustments to the lump sum prices for each Milestone) and/or otherwise is known the Company Manager shall complete Form A hereto and send three copies to the Contractor's Representative. The Contractor's Representative shall complete the form detailing the variation if any in the Hydrogen Price or otherwise for each variation and shall return two copies to the Company Manager. If the Company wishes to authorise the variation it shall proceed by issuing Form B, which shall be signed by the Company Manager, to the Contractor's Representative in duplicate. One copy of Form B shall be signed and returned by the Contractor's Representative to the Company Manager. Subject to paragraph 1.2 below the Contractor must not implement any variation unless it have been duly authorised by the issue of Form B signed by the Company Manager;
 - 1.2 in cases where the Company requires a variation or variations to be put in hand whether at the suggestion of the Contractor or not, as soon as possible and before the effect on the Hydrogen Price, Works Contract Sum and Pricing Schedule or otherwise is established, the Company Manager shall complete and sign Form C hereto, and send three copies to the Contractor. The Contractor shall complete Form C detailing the variation if any in the Hydrogen Price, Works Contract Sum and Pricing Schedule and/or otherwise for each variation and shall return two copies to the Company Manager but shall immediately proceed with the variations required.
2. If the Company submits a Form A or Form C in accordance with para1 above which is, in the reasonable opinion of the Contractor, likely to prejudice the ability of the Contractor to meet its obligations hereunder, or prejudice any health and safety in connection with the provision of the Refuelling Facility or Hydrogen, then the Contractor may within three (3) Business Days after the Form A or Form C (as applicable) is received, give written notice to the Company:
 - 2.1 objecting to the variation order;
 - 2.2 advising the Company of its reason for so objecting indicating the probable or likely consequences of compliance with the variation order; and
 - 2.3 advising the Company of the course of action which the Contractor recommends under the circumstances.
3. If the Contractor gives notice pursuant to Paragraph 2 above, the Company Manager and the Contractor's Representative shall meet promptly, and, in good faith, use reasonable endeavours to agree the variation with any such amendments as may be reasonable in all the circumstances. Should the Company Manager and the Contractor's Representative be unable to agree on a variation, then the Company shall have the right to perform the desired changes itself or to retain a third party to perform such changes. In the event, however, that Company shall perform such changes or retain a third party to perform such changes, then Company and/or such third party shall bear all responsibilities in connection therewith, and the Contractor shall not be liable for any breach of warranties or damages to the extent that such breaches or damages are caused by the work performed by the Company or a third party or both.
4. No variation whatsoever from the original Hydrogen Price, Works Contract Sum and Pricing Schedule and/or otherwise shall be considered unless the foregoing procedure has

been carried out and it shall be the responsibility of the Contractor to ensure that the relevant and duly signed forms have been received from the Company before any variation to the Contract is made.

5. All forms should be completed and returned by the Contractor as soon as possible and in any event within 14 days of receipt by the Contractor.
6. The amount to be added to or deducted from the Hydrogen Price, Works Contract Sum and Pricing Schedule or otherwise shall be determined sum as in all the circumstances the Company Manager certifies as reasonable.
7. In relation to the valuation of variations in relation to the Works, the following provisions shall apply:
 - 7.1 The value of all variations shall be such amount as is agreed by the Company Project Manager and the Contractor or where not agreed the amount valued in accordance with this Paragraph 7 as follows:
 - 7.1.1 the valuation of additional or substituted work shall use the labour rates, prices and allowances for the relevant item of work and services in the Pricing Schedule;
 - 7.1.2 if there is no labour rate, price or allowance in the Pricing Schedule that corresponds to an item of work for the proposed variation, the relevant valuation shall be calculated by reference to the labour rates, prices or allowances in the Pricing Schedule for works of a similar character and executed under similar conditions;
 - 7.1.3 if there is no labour rate, price or allowance in the Pricing Schedule that corresponds to an item of work for a proposed variation and there are no labour rates, prices or allowances in the Pricing Schedule for works of a similar character and executed under similar conditions, a fair valuation shall be made, consistent with open market competitively tendered pricing, for the relevant item of work.
 - 7.1.4 in respect of all plant and equipment used in connection with any variation, the valuation of additional or substituted plant and equipment shall be based on the corresponding rates and prices in the CECA Schedule together with the percentage adjustment specified in the Pricing Schedule.
 - 7.1.5 in respect of all materials used in connection with any variation, the valuation of additional or substituted materials shall be a fair valuation, consistent with open market competitively tendered pricing, for the relevant materials together with the percentage adjustment specified in the Pricing Schedule.
 - 7.1.6 no further sums, including (without limitation) any management costs, storage and accommodation costs or other overheads, shall be payable in respect of any variation unless expressly agreed by the Company.
 - 7.1.7 The valuation of the omission of any work shall use the labour rates, prices and allowances for the relevant item of work in the Pricing Schedule. Where appropriate, the valuation of the omission of any plant, equipment or materials shall be in based on the CECA Schedule or a fair valuation consistent with open market competitively tendered pricing. Save to the extent that any omission of work arises from any error, unlawful act or omission, negligence, default, breach of contract, breach of statutory duty and/or failure to comply with this Contract of the Contractor, the valuation of an omission of any work or services shall include an allowance to the Contractor for the following costs directly associated with such omission:

- 7.1.7.1 the reasonable properly incurred cost of removal of the Contractor's property from the Refuelling Site to the extent required as a result of the omission;
 - 7.1.7.2 costs incurred by the Contractor for exercising rights of cancellation or termination of third party contracts, which have been entered into in the reasonable expectation of completing the omitted works, where such costs would not have been incurred but for the omission;
 - 7.1.7.3 the Contractor's costs in connection with underutilised employees and redundancy costs of employees who cannot be redeployed or appropriated for other purposes;
- provided in each case that:
- (a) the Contractor can provide written evidence to demonstrate the costs such that the Company can verify those costs and that they are correctly and reasonably incurred; and
 - (b) the Contractor shall mitigate any and all costs incurred, including without limit by appropriating employees, assets and resources for other purposes and exercising rights of cancellation or termination under applicable third party contracts; and
 - (c) the amount of such costs are to be agreed between the Parties before becoming payable and if the Parties cannot agree then such amounts shall be determined in accordance with the dispute resolution procedure set out in **Clause 42**.

- 7.2 There shall be no increase in the Works Contract Sum to the extent that any variation arises from any error, unlawful act or omission, negligence, default, breach of contract, breach of statutory duty and/or failure to comply with this Contract of the Contractor.
- 7.3 If the Company Project Manager reasonably assesses that the cost to the Contractor of delivering the Works is or will be reduced by reason of a variation, then the Parties shall discuss and use reasonable endeavours to agree an appropriate reduction to the Works Contract Sum to reflect such cost savings to the Contractor. The intention is to put the Contractor in no better and no worse position as a result of the variation. If the Parties are unable to agree an appropriate reduction to the Works Contract Sum within twenty (20) Working Days then either party may refer the matter to be resolved pursuant to be determined in accordance with the dispute resolution procedure set out in **Clause 42**.
- 8. Despite any rule of law to the contrary the Contractor acknowledges and agrees that the Company reserves the right to omit any works and carry out such omitted works or services itself or to engage other persons to carry out the omitted works or services by or on behalf of the Company. The Company shall have no liability to the Contractor for any loss of profit, loss of contract or, save as provided for in the **Schedule 6**, other costs, fees, loss and/or expenses arising out of or in connection with such omission, whether or not the Company engages any other contractor to complete all or part of the works.

FORM B

Contract No: []

AVC No:

Date:

AUTHORITY FOR VARIATION FROM CONTRACT

Authority is hereby given for the variation in requirement (described on NPVC No _____) to be made and for variation in the Hydrogen Price or otherwise. The duplicate copy of this form must be signed by or on behalf of the Contractor and returned to **[insert Company details]** as an acceptance by the Contractor of the variation shown below.

DETAIL OF VARIATION	AMOUNT £	
Extra Cost to London Bus Services Limited		

Signed: _____
[]
FOR THE COMPANY

ACCEPTANCE BY CONTRACTOR

Date: _____

Signed: _____
FOR THE CONTRACTOR

SCHEDULE 7

ESCROW DOCUMENTS

1. The Escrow Documents shall comprise all hardware and software, necessary HRS-to-bus protocol software information, station diagnostic software and test hardware, system schematics, wiring diagrams, security access codes and physical keys to modules, unique tooling, and all operational information required to maintain and operate the HRS and detailed lists and sources of wear and spare parts which would be required to keep it going until life-expired.
2. Immediately upon the issuing of the Installation Certificate as at **Clause 5.27**, the Parties will enter into the escrow agreement substantially in the form set out below.

Information Escrow Agreement

Date

[OWNERNAME]

Owner

Agreement Number

[Agreement#]

Notice: This template has been drafted on the assumption that all contracting parties are based in England or Wales. If the contracting parties are based outside of England and Wales NCC Group recommends that the parties take independent legal advice to ascertain what appropriate amendments should be made to this agreement.

Escrow Agreement Dated:

Between:

- (1) [OWNERNAME] whose registered office is at [Owneraddress] (CRN: [Ownercrn]) ("**Owner**");
- (2) [CUSTOMERNAME] whose registered office is at [Customeraddress] (CRN: [Customercrn]) ("**Customer**"); and
- (3) NCC GROUP ESCROW LIMITED a company registered in England whose registered office is at XYZ Building, 2 Hardman Boulevard, Spinningfields, Manchester, M3 3AQ, England (CRN: 3081952) ("**NCC Group**").

Background:

- (A) Certain technical information and/or documentation is the confidential information and intellectual property of the Owner.
- (B) The Owner acknowledges that in certain circumstances, such information and/or documentation would be required by the Customer in order for it to continue to use or otherwise enjoy the benefit of a certain product or products.
- (C) To provide assurance to the Customer that the Customer can obtain access to the information and/documentation, the parties have agreed that such information and/or documentation should be placed with a trusted third party, NCC Group, so that it can be released to the Customer should certain circumstances arise.

Agreement:

In consideration of the mutual undertakings and obligations contained in this Agreement, the parties agree that:

1 Definitions and Interpretation

1.1 In this Agreement the following terms shall have the following meanings:

"Affiliate" means any entity directly or indirectly controlling, controlled by or under common control with NCC Group.

"Agreement" means the terms and conditions of this escrow agreement set out below, including the schedules hereto.

"Assignee" shall have the meaning given to it in clause 6.1.6.

"Business Day" means a day on which banks in England and Wales are open for a full range of banking transactions.

"Confidential Information" means all technical and/or commercial information not in the public domain and which is designated in writing as confidential by any party together with all other information of any party which may reasonably be regarded as confidential information.

"Data Protection Legislation" means the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679) and any related legislation, regulations, requirements or guidance from time to time.

"Deposit Form" means the form which is to be completed by the Owner and delivered to NCC Group with each deposit of the Material.

"Deposit Refresh" means NCC Group's deposit refresh service which ensures that the integrity of the media is maintained.

"Independent Expert" means a suitably qualified and independent solicitor or barrister.

"Intellectual Property Rights" mean any copyright, patents, design patents, registered designs, design rights, utility models, trademarks, service marks, trade secrets, know how, database rights, moral rights, confidential information, trade or business names, domain names, and any other rights of a similar nature including industrial and proprietary rights

and other similar protected rights in any country or jurisdiction together with all registrations, applications to register and rights to apply for registration of any of the aforementioned rights and any licences of or in respect of such rights.

"Material" means the technical information and documentation which relates to the Product(s) and which is described in schedule 1, together with any updates and upgrades thereto and new versions thereof.

"Media Check" means the tests and processes forming NCC Group's Media Check service, in so far as they can be applied to the Material.

"Medium" means the media upon which the deposited Material is stored.

"Order Form" means the order form setting out the details of the order placed with NCC Group for setting up this Agreement.

"Personal Data" shall have the meaning given to it in the General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679).

"Product(s)" means any product or products which the Customer has a right to use or otherwise enjoy the benefit of and/or which are being or are to be designed, created, manufactured or constructed for the Customer by the Owner.

"Release Purposes" means only those purposes which will enable the Customer to continue to fully exercise the User Rights.

"Tax" means any tax, levy, impost, duty, charge or fee, or penalty or interest thereon.

"User Rights" means the Customer's rights to use or otherwise enjoy the benefit of the Product(s) (whether or not such rights have been granted to the Customer by the Owner in any form of agreement).

"Verification" means the tests and processes forming NCC Group's verification services for verifying and/ or testing the Material and/or such other tests and processes as may be agreed between the parties.

"Virtual Machine Deposit" means a deposit of the Material in a virtual machine format.

- 1.2 This Agreement shall be interpreted in accordance with the following:
- 1.2.1 headings are for ease of reference only and shall not be taken into consideration in the interpretation of this Agreement;
 - 1.2.2 all references to clauses and schedules are references to clauses and schedules of this Agreement;
 - 1.2.3 all references to a party or parties are references to a party or parties to this Agreement; and
 - 1.2.4 any reference to any statute, statutory provision or subordinate legislation shall be interpreted as referring to such legislation as amended and in force from time to time and/or which replaces, re-enacts or consolidates such legislation.

2 Owner's Duties and Warranties

- 2.1 The Owner shall:
- 2.1.1 deliver a copy of the Material to NCC Group within 30 days of the date of this Agreement;
 - 2.1.2 deliver a further copy of the Material to NCC Group each time that there is a change to the Material;
 - 2.1.3 following completion of the NCC Group on-site or remote element of any Verification either deliver a copy of the Material that has been verified to NCC Group within 7 days of the completion of the on-site or remote element of the Verification or, with NCC Group's consent, provide a copy of the same to the consultant undertaking such Verification on behalf of NCC Group in each case so that it can be deposited;
 - 2.1.4 ensure that each copy of the Material deposited with NCC Group is the latest version of the Material;
 - 2.1.5 where the media upon which the Material is stored is electronically-readable, within

30 days after the anniversary of the last delivery of the Material either deliver to NCC Group a replacement copy of the material ("**Annual Deposit**") or request that NCC Group perform a Deposit Refresh. If the Owner fails to make an Annual Deposit in accordance with this clause 2.1.5 and does not request a Deposit Refresh NCC Group shall automatically perform a Deposit Refresh at the cost of the parties as set out in Schedule 2;

2.1.6 deliver a replacement copy of the Material to NCC Group within 14 days of a notice given to it by NCC Group under the provisions of clause 4.1.3;

2.1.7 deliver with each deposit of the Material the following information:

2.1.7.1

the overall name of the Material (its original name as set out under schedule 1 together with any new names given to the Material by the Owner) and, where appropriate, a more detailed description;

2.1.7.2

version details, media type, backup command/software used, compression used, archive hardware and operating system details; and

2.1.7.3

password/encryption details required to access the Material.

2.2 The Owner warrants to both NCC Group and the Customer at the time of each deposit of the Material with NCC Group that:

2.2.1 it owns the Intellectual Property Rights in the Material;

2.2.2 the Material is the latest version of the Material; and

2.2.3 there is no Personal Data contained within the Material held by NCC Group.

2.3 The Owner agrees and confirms that each time it makes a physical deposit of Material under this Agreement it transfers ownership of the Medium on which the Material is stored to NCC Group.

2.4 The Owner agrees that each time it makes an electronic deposit of Material under this Agreement and NCC Group downloads that Material on to a Medium, NCC Group shall own the Medium on which the Material is stored.

3 Customer's Responsibilities and Undertakings

3.1 The Customer shall notify NCC Group of any change to the Material and/or the Product(s) that necessitates a replacement deposit of the Material.

3.2 In the event that the Material is released under clause 6, the Customer shall:

3.2.1 keep the Material confidential at all times;

3.2.2 use the Material only for the Release Purposes;

3.2.3 not disclose the Material to any person or third party save such of the Customer's employees or contractors who need to know the same in order to use the Material exclusively on behalf of the Customer for the Release Purposes or any other party as permitted by the User Rights. In the event that Material is disclosed to its employees or contractors or a third party, the Customer shall ensure that they are bound by the same confidentiality obligations as are contained in this clause 3.2;

3.2.4 hold all media containing the Material in a safe and secure environment when not in use; and

3.2.5 forthwith destroy the Material should the Customer cease to be entitled to exercise the User Rights.

4 NCC Group's Duties

4.1 NCC Group shall:

4.1.1 at all times during the term of this Agreement, retain the latest deposit of the Material in a safe and secure environment;

4.1.2 inform the Owner and the Customer of the receipt of any deposit of the Material by sending to both parties a copy of the Media Check report or Verification report (as

the case may be) generated from the testing processes carried out under clause 10; and

- 4.1.3 notify the Owner and the Customer if it becomes aware at any time during the term of this Agreement that the copy of the Material held by it has been lost, damaged or destroyed so that a replacement may be obtained.
- 4.2 If NCC Group becomes aware that the Owner has not deposited Material when required to do so under the terms of this Agreement, then NCC Group may notify the Customer of such failure (but it is not obliged to do so and shall not be responsible for procuring such deposit from the Owner).
- 4.3 NCC Group has the right to make such copies of the Material as may be necessary solely for the purposes of this Agreement.

5 Payment

- 5.1 The Owner and the Customer shall pay NCC Group's standard fees and charges as published from time to time or as otherwise agreed, in the proportions set out in schedule 2. NCC Group's fees as published are exclusive of value added tax and any other applicable Tax.
- 5.2 NCC Group shall be entitled to review and vary its standard fees and charges for its services under this Agreement from time to time but no more than once a year and only upon 45 days written notice to the parties.
- 5.3 Except in the case of release as stated in clause 6, all invoices are payable within 30 days from the date of invoice. NCC Group reserves the right to charge interest in respect of the late payment of any sum due under the Agreement (both before and after judgement) at the rate specified in the Late Payment of Commercial Debts (Interest) Act, such interest to accrue on a daily basis from the due date until full payment.
- 5.4 The Owner and the Customer shall make all such payments due under this Agreement to NCC Group without withholding or deduction of, or in respect of, any Tax unless required by law. If any such withholding or deduction is required, the Owner or the Customer (as appropriate) shall, when making the payment to which the withholding or deduction relates, pay to NCC Group such additional amount as will ensure that NCC Group receives the same total amount that it would have received if no such withholding or deduction had been required.

6 Release Events

- 6.1 Subject to: (i) the remaining provisions of this clause 6 and (ii) the receipt by NCC Group of its release fee and any other fees and interest (if any) due under this Agreement, NCC Group will release the Material to a duly authorised officer of the Customer if any of the following events ("**Release Event(s)**") occur:
 - 6.1.1 if the Owner is a company:
 - 6.1.1.1 an order is made for the winding up of the Owner, the Owner passes a resolution for winding up (other than for the purposes of a solvent reconstruction or amalgamation) or a liquidator of the Owner is appointed; or
 - 6.1.1.2 an order is made for the appointment of an administrator of the Owner or an administrator of the Owner is appointed; or
 - 6.1.1.3 the Owner enters into a compromise or arrangement with creditors; or
 - 6.1.1.4 the Owner has a receiver, administrative receiver or manager appointed over all or any part of its assets or undertaking; or
 - 6.1.1.5 the Owner is dissolved; or
 - 6.1.2 if the Owner is an individual:

- 6.1.2.1 the Owner enters into a compromise or arrangement with creditors; or
- 6.1.2.2 the Owner is declared bankrupt; or
- 6.1.2.3 the Owner dies; or
- 6.1.3 if the Owner is a partnership:
 - 6.1.3.1 any of the partners in the Owner are declared bankrupt or enter into a compromise or arrangement with creditors; or
 - 6.1.3.2 the Owner is wound up or dissolved; or
 - 6.1.3.3 the Owner enters into a compromise or arrangement with creditors; or
 - 6.1.3.4 a partnership administration order is made in respect of the Owner; or
- 6.1.4 any similar or analogous proceedings or event to those in clauses 6.1.1 to 6.1.3 above occurs in respect of the Owner within any jurisdiction outside England; or
- 6.1.5 the Owner ceases to carry on its business or the part of its business which relates to the Product(s); or
- 6.1.6 the Owner assigns its rights to the Intellectual Property Rights in the Material to a third party ("**Assignee**") and the Assignee fails, within 60 days of all parties' knowledge of such assignment, to continue escrow protection for the benefit of the Customer by failing to enter into either:
 - 6.1.6.1 a novation agreement with the Customer and NCC Group for the assumption of the Owner's rights and obligations under this Agreement by the Assignee; or
 - 6.1.6.2 a new escrow agreement with the Customer for the Material which offers the Customer substantially similar protection to that provided by this Agreement without significantly increasing the overall cost to the Customer,

provided that if the Assignee offers to enter into a novation or new escrow agreement within 60 days of all parties' knowledge of the assignment and the Customer fails to accept the Assignee's offer within 30 days of such offer being notified to the Customer, there shall be no Release Event under this clause; or
- 6.1.7 the Owner is in material breach of its obligations under any agreement with the Customer relating to the Product(s) and has failed to remedy such default notified by the Customer to the Owner within a reasonable period.
- 6.2 The Customer must notify NCC Group of the Release Event specified in clause 6.1 by delivering to NCC Group a statutory or notarised declaration ("**Declaration**") made by an officer of the Customer declaring that such Release Event has occurred, setting out the facts and circumstances of the Release Event, that the User Rights and any agreement with the Owner relating to the Product(s) were still valid and effective up to the occurrence of such Release Event and exhibiting any applicable supporting documentary evidence. Without prejudice to clauses 11.5 and 11.6, NCC Group shall be fully entitled to rely and act upon the Declaration and shall not be required to verify its contents, truth or accuracy.
- 6.3 Upon receipt of a Declaration from the Customer claiming that a Release Event has occurred:
 - 6.3.1 NCC Group shall submit a copy of the Declaration to the Owner by courier or other form of guaranteed delivery; and
 - 6.3.2 unless within 14 days after the date of despatch of the Declaration by NCC Group,

NCC Group receives a counter-notice signed by a duly authorised officer of the Owner stating that in their view no such Release Event has occurred, or, if appropriate, that the event or circumstance giving rise to the Release Event has been rectified,

NCC Group will release the Material to the Customer for its use for the Release Purposes.

- 6.4 Upon receipt of the counter-notice from the Owner under clause 6.3.2, NCC Group shall send a copy of the counter-notice to the Customer by courier or other form of guaranteed delivery.
- 6.5 Within 90 days of despatch of the copy of the counter-notice to the Customer by NCC Group, the Customer may give notice to NCC Group that they wish to invoke the dispute resolution procedure under clause 7.
- 6.6 If, within 90 days of despatch of the counter-notice by NCC Group to the Customer, NCC Group has not been informed by the Customer that it wishes the dispute resolution procedure under clause 7 to apply, the Declaration submitted by the Customer will be deemed to be no longer valid and the Customer shall be deemed to have waived its right to release of the Material for the particular reason or event specified in the original Declaration.
- 6.7 For the avoidance of doubt, where a Release Event has occurred under clauses 6.1.1 to 6.1.5 or 6.1.7, a subsequent assignment of the Intellectual Property Rights in the Material shall not prejudice the Customer's right to release of the Material and its use for the Release Purposes.
- 6.8 If a Release Event has occurred under clause 6.1, the subsequent termination of the User Rights shall not prejudice the Customer's right to release of the Material and its use for the Release Purposes provided that the other provisions of this clause 6 have been complied with.

7 Disputes

- 7.1 NCC Group shall notify the Owner of the Customer's request for dispute resolution pursuant to clause 6.5. Unless the Owner or the Customer objects, NCC Group's Chief Executive Officer for the time being will appoint an Independent Expert to resolve the dispute of whether the Release Event(s) specified in the Declaration has/have occurred and, if applicable, whether the Release Event(s) has/have been rectified. If the Owner or the Customer objects to this appointment, they shall endeavour to appoint a mutually acceptable Independent Expert within 7 days of registering their objection. If they fail to appoint an Independent Expert within this 7 day period, NCC Group shall, on behalf of and at the joint and several cost of the Owner and the Customer, request that the President of The Law Society appoints an Independent Expert to resolve the dispute. Any appointment of an Independent Expert under this clause shall be binding upon the parties. NCC Group shall not be party to the dispute resolution proceedings under this clause 7.
- 7.2 Within 7 days of the appointment of the Independent Expert, the Owner and the Customer shall each provide full written submissions to the Independent Expert together with all relevant documentary evidence in their possession in support of their claim.
- 7.3 Based solely on the written submissions of the Owner and the Customer and without the need for a hearing, the Independent Expert shall render and deliver his or her decision on the matter within 14 days or as soon as practicable thereafter of receiving the written submissions from the Owner and the Customer and shall send a copy of that decision to the Owner, Customer and NCC Group. The Independent Expert's decision shall be final and binding on all parties and shall not be subject to appeal to a court in legal proceedings except in the case of manifest error.
- 7.4 The decision shall be limited to a determination of whether the Customer is entitled to a release of the Material under clause 6.
- 7.5 If the Independent Expert's decision is in favour of the Customer, NCC Group is hereby authorised to release and deliver the Material to the Customer within 7 days of the decision being notified by the Independent Expert to the parties. If the Independent Expert's decision is in favour of the Owner, then NCC Group shall not release the Material and shall continue to hold the Material in accordance with the terms of this Agreement.
- 7.6 The Owner and the Customer hereby agree that the costs and expenses of the

Independent Expert shall be borne by the party against whom the decision of the Independent Expert is given.

8 Confidentiality

- 8.1 Without prejudice to clause 6, the Material shall remain at all times the confidential and intellectual property of its owner.
- 8.2 In the event that NCC Group releases the Material to the Customer, the Customer shall be permitted to use the Material only for the Release Purposes.
- 8.3 NCC Group agrees to keep all Confidential Information relating to the Material that comes into its possession or to its knowledge under this Agreement in strictest confidence and secrecy. NCC Group further agrees not to make use of such information and/or documentation other than for the purposes of this Agreement and, unless the parties should agree otherwise in writing or as required by law or regulation or by the rules of any stock exchange or a court of competent jurisdiction or by any legal or regulatory authority (including the police), will not disclose or release it other than in accordance with the terms of this Agreement.

9 Intellectual Property Rights

- 9.1 The release of the Material to the Customer will not act as an assignment of any Intellectual Property Rights that the Owner possesses in the Material.
- 9.2 The Intellectual Property Rights in the Media Check report and any Verification report shall remain vested in NCC Group. The Owner and the Customer shall each be granted a non-exclusive right and licence to use such reports for the purposes of this Agreement and their own internal purposes only.

10 Media Check and Verification

- 10.1 NCC Group shall bear no obligation or responsibility to any party to this Agreement or person, firm, company or entity whatsoever to determine the relevance, completeness, accuracy, operation, effectiveness, functionality or any other aspect of the Material received by NCC Group under this Agreement.
- 10.2 As soon as reasonably practicable after the Material has been deposited with NCC Group, NCC Group shall perform a Media Check on the Material.
- 10.3 The Owner or the Customer may request that NCC Group apply its Verification processes to the Material and the non-requesting party shall co-operate in facilitating such Verification. NCC Group shall at its discretion decide whether or not to undertake any Verification requested and may attach such requirements thereto as it considers appropriate. Subject to clause 10.4, NCC Group's prevailing fees and charges for the Verification and all reasonable expenses incurred by NCC Group in carrying out the Verification shall be payable by the requesting party.
- 10.4 If the Material fails to satisfy NCC Group's Verification processes as a result of being defective or incomplete in content, NCC Group's fees charges and expenses in relation to the Verification processes shall be paid by the Owner.
- 10.5 Should the Material deposited fail to satisfy NCC Group's Media Check under clause 10.2, the Owner shall, within 14 days of the receipt of the notice of test failure from NCC Group, deposit such new, corrected or revised Material as shall be necessary to ensure its compliance with its warranties and obligations in clause 2. If the Owner fails to make such deposit of the new, corrected or revised Material as requested in accordance with this clause 10.5, NCC Group will inform the Licensee that the Material has failed the Media Check and retain such deposit in accordance with clause 4.1.1.
- 10.6 Should the Material deposited fail to satisfy NCC Group's Verification tests under clause 10.3, the Owner shall within 14 days of the receipt of the notice of test failure from NCC Group, deposit such new, corrected or revised Material as shall be necessary to ensure its compliance with its warranties and obligations in clause 2. If the Owner fails to make such deposit of the new, corrected or revised Material as requested in accordance with this clause 10.6, NCC Group will issue a report to the Customer detailing the problem with the Material as revealed by the relevant tests.
- 10.7 The Owner acknowledges that as part of the Verification services NCC Group may test the Material and hereby consents to the performance of such services ordered pursuant to this

Agreement.

- 10.8 NCC Group's terms and conditions for the time being in relation to Verification ("**Verification Terms**") will (unless NCC Group expressly agrees otherwise in writing) apply to any Verification undertaken by NCC Group in connection with this Agreement.

11 NCC Group's Liability

- 11.1 Nothing in this Agreement excludes or limits the liability of NCC Group for:

11.1.1 fraud or fraudulent misrepresentation;

11.1.2 death or personal injury caused by NCC Group's (or its employees', agents' or sub-contractors') negligence;

11.1.3 any matter for which it is not permitted by law to exclude or limit, or to attempt to exclude or limit, liability.

- 11.2 Without prejudice to clause 11.1, the provisions of clauses 11.3 and 11.4 set out the entire liability of NCC Group (including any liability for the acts or omissions of its employees, agents and sub-contractors) arising out of or in connection with this Agreement, whether in contract, tort, misrepresentation, under statute or otherwise, howsoever caused including (without limitation) by negligence and also including (without limitation) any liability arising from a breach of, or a failure to perform or defect or delay in performance of, any of NCC Group's obligations under this Agreement.

- 11.3 Subject to clause 11.1, NCC Group shall not be liable for any loss or damage caused to the Owner or the Customer except to the extent that such loss or damage is caused by the negligent acts or negligent omissions of or a breach of any contractual duty by NCC Group, its employees, agents or sub-contractors in performing its obligations under this Agreement and in such event NCC Group's maximum aggregate liability arising out of or in connection with this Agreement, whether in contract, tort, misrepresentation, under statute or otherwise, howsoever caused including (without limitation) by negligence and also including (without limitation) any liability arising from a breach of, or a failure to perform or defect or delay in performance of, any of NCC Group's obligations under this Agreement, shall be limited to £2,500,000 (two million five hundred thousand pounds).

- 11.4 Subject to clause 11.1, NCC Group shall not be liable to the Owner or the Customer for any:

11.4.1 indirect, consequential and/or special loss or damage;

11.4.2 loss of profit (direct or indirect);

11.4.3 loss of revenue, loss of production or loss of business (in each case whether direct or indirect);

11.4.4 loss of goodwill, loss of reputation, or loss of opportunity (in each case whether direct or indirect);

11.4.5 loss of anticipated saving or loss of margin (in each case whether direct or indirect);

11.4.6 wasted management, operational or other time (in each case whether direct or indirect);

11.4.7 loss or damage arising out of any failure by the Owner to keep full and up to date back-ups and security copies of any Materials delivered under this Agreement; and/or

11.4.8 liability of the Owner or the Customer to third parties (whether direct or indirect), in each case arising out of or in connection with this Agreement, whether in contract, tort, misrepresentation, under statute or otherwise, howsoever caused including (without limitation) by negligence and also including (without limitation) any liability arising from a breach of, or a failure to perform or defect or delay in performance of, any of NCC Group's obligations under this Agreement.

- 11.5 NCC Group shall not be liable in any way to the Owner or the Customer for acting in accordance with the terms of this Agreement and specifically (without limitation) for acting upon any notice, written request, waiver, consent, receipt, statutory declaration or any other document furnished to it pursuant to and in accordance with this Agreement.

- 11.6 NCC Group shall not be required to make any investigation into and shall be entitled in

good faith without incurring any liability to the Owner or the Customer to assume (without requesting evidence thereof) the validity, authenticity, veracity and due and authorised execution of any documents, written requests, waivers, consents, receipts, statutory declarations or notices received by it in respect of this Agreement.

- 11.7 Nothing in this Agreement shall impose any liability on NCC Group in respect of non-performance of its obligations under this Agreement to the extent such non-performance is due to the Customer's or the Owner's acts, omissions, negligence or default.

12 Indemnity

- 12.1 Save for any claim falling within the provisions of clause 11.1 or any claim in respect of which NCC Group is found by a court of competent jurisdiction to have breached this Agreement or been negligent, the Owner and the Customer jointly and severally agree at all times to indemnify and hold harmless NCC Group in respect of all of its legal and all other costs, fees and expenses incurred directly or indirectly as a result of being brought into or otherwise becoming involved in any form of dispute resolution proceedings or any litigation of any kind between or involving the Owner and/or the Customer in relation to this Agreement to the extent that this Agreement does not otherwise provide for reimbursement of such costs.
- 12.2 The Owner shall assume all liability and shall at all times indemnify and hold harmless NCC Group and its officers, agents, sub-contractors and employees from and against any and all liability, loss, damages, costs, legal costs, professional and other expenses and any other liabilities of whatever nature, awarded against or agreed to be paid or otherwise suffered, incurred or sustained by NCC Group, whether direct, indirect or consequential as a result of or in connection with any claim by any third party(s) for alleged or actual infringement of Intellectual Property Rights arising out of or in connection with all and any acts or omissions of NCC Group in respect of the Material as contemplated under this Agreement.

13 Term and Termination

- 13.1 This Agreement shall continue until terminated in accordance with this clause 13.
- 13.2 If the Owner or the Customer, as the case may be, fails to pay an invoice addressed to it for services under this Agreement within 30 days of its issue, NCC Group reserves the right to give that party written notice to pay the outstanding invoice within 30 days. If the Customer has not paid its invoice by the expiry of the 30 day notice period, NCC Group shall have the right to terminate this Agreement immediately on written notice. If the Owner has not paid its invoice by the expiry of the 30 day notice period, NCC Group will give the Customer a period of 30 days to pay the Owner's invoice. If the Owner's invoice has not been paid by the expiry of the 30 day optional payment period given to the Customer, NCC Group shall have the right to terminate this Agreement immediately on written notice. Any amounts owed by the Owner but paid by the Customer will be recoverable by the Customer direct from the Owner as a debt and, if requested, NCC Group shall provide appropriate documentation to assist in such recovery.
- 13.3 Notwithstanding any other provision of this clause 13, NCC Group may terminate this Agreement by giving 30 days written notice to the Owner and the Customer.
- 13.4 The Customer may terminate this Agreement at any time by giving not less than 60 days' prior written notice to NCC Group.
- 13.5 If NCC Group discovers that a Release Event has occurred and the Customer has not exercised its right to claim for release of the Material under clause 6.2, NCC Group shall have the right to terminate this Agreement upon 30 days written notice to the Owner and the Customer. The Customer shall have the option of applying for release in accordance with clause 6 during this notice period, but if it fails to do so, upon the expiry of this notice period, this Agreement shall automatically terminate.
- 13.6 If the Intellectual Property Rights in the Material have been assigned to a third party and the proviso in clause 6.1.6 applies such that there has been no Release Event under that clause, NCC Group shall be entitled to terminate this Agreement immediately by written notice to the Owner and the Customer.
- 13.7 If the User Rights have expired or have been lawfully terminated, then the Customer shall give notice to NCC Group within 14 days thereof to terminate this Agreement, failing which, the Owner shall be entitled to give written notice to NCC Group to terminate this

Agreement. Upon receipt of such a notice from the Owner, NCC Group shall notify the Customer of the Owner's notice to terminate. Unless within 30 days of NCC Group giving such notice to the Customer, NCC Group receives a counter-notice signed by a duly authorised officer of the Customer either (i) disputing the termination of the User Rights; or (ii) requesting release pursuant to clause 6, then the Customer shall be deemed to have consented to such termination and this Agreement shall immediately automatically terminate. If the Customer does provide NCC Group with a counter-notice, then NCC Group shall notify the Owner and this Agreement shall not terminate but shall continue in full force and effect.

- 13.8 Subject to clause 13.7, the Owner may only terminate this Agreement with the written consent of the Customer and then only on not less than 60 days' prior written notice to NCC Group.
- 13.9 For 30 days from the date of termination of this Agreement pursuant to clauses 13.2 to 13.8 inclusive NCC Group will make the Material available for collection by the Owner or its agents from the premises of NCC Group during office hours. After such 30 day period NCC Group will destroy the Material.
- 13.10 This Agreement shall automatically immediately terminate upon release of the Material to the Customer in accordance with clause 6. Following termination of the Agreement pursuant to this clause 13.10, NCC Group will destroy the remaining Material (if any).
- 13.11 If this Agreement is superseded and replaced by a new agreement with NCC Group in respect of the Material, this Agreement shall, upon the coming into force of the new agreement, automatically terminate. The relevant party or parties shall request NCC Group to either transfer the Material to the new agreement or ask the owner under the new agreement to deposit new material. If new material is deposited, upon its receipt, NCC Group shall, unless otherwise instructed in writing by the Owner, destroy the Material.
- 13.12 The provisions of clauses 1, 3.2, 5, 8, 9, 10.1, 11, 12, 13.12 to 13.14 (inclusive) and 14 shall continue in full force after termination of this Agreement.
- 13.13 On and after termination of this Agreement, the Owner and/or the Customer (as appropriate) shall remain liable to NCC Group for payment in full of any fees and interest which have become due but which have not been paid as at the date of termination.
- 13.14 The termination of this Agreement, however arising, shall be without prejudice to the rights accrued to the parties prior to termination.
- 13.15 The Customer may by written notice to NCC Group unilaterally revoke any termination notice served by it at any time prior to the expiry of such termination notice.

14 General

- 14.1 A party shall notify the other parties to this Agreement, within 30 days of its occurrence, of any of the following:
 - 14.1.1 any change of name of the individual contact(s) for this Agreement, such notice to include the new contact name, email address, correspondence address and telephone number;
 - 14.1.2 a change of its name or registered office; and
 - 14.1.3 any material change in its circumstances that may affect the validity or operation of this Agreement.
- 14.2 Within 14 days of any assignment or transfer by the Owner of any part of its Intellectual Property Rights in the Material, the Owner shall notify:
 - 14.2.1 NCC Group and the Customer of such assignment and the identity of the Assignee; and
 - 14.2.2 the Assignee of the provisions of clause 6.1.6.
- 14.3 Each party warrants that it has full capacity and authority to enter into and to perform this Agreement, and that in entering into this Agreement and performing its obligations under it, it is not and will not at any time be in breach of any of its express or implied obligations to any third party.
- 14.4 The formation, existence, construction, performance, validity and all other aspects of this

Agreement shall be governed by and construed in accordance with the laws of England and the parties submit to the exclusive jurisdiction of the English courts.

- 14.5 This Agreement, together with the Order Form, Deposit Form and the Verification Terms (where applicable) represent the whole agreement relating to the escrow arrangements between NCC Group and the other parties for the Material and shall supersede all prior agreements, discussions, arrangements, representations, negotiations and undertakings. In the event of any conflict between any of these documents, the following order of precedence shall apply: (i) the Verification Terms (where applicable); then (ii) this Agreement; then (iii) the Deposit Form; (iv) the Order Form; then (v) any other document incorporated by reference. No party has entered into this Agreement in reliance upon and will have no remedy in respect of any representation, misrepresentation or statement which is not set out in those documents. Nothing in this clause shall limit or exclude the liability of any party for fraud or fraudulent misrepresentation.
- 14.6 Unless the provisions of this Agreement otherwise provide, any notice or other communication required or permitted to be given or made in writing hereunder shall be validly given or made if delivered by hand or courier or if despatched by first class recorded delivery (airmail if overseas) addressed to the address specified for the parties in this Agreement (or such other address as may be notified to the parties from time to time) or if sent by electronic mail to an email address as notified by the parties from time to time and shall be deemed to have been received:
- (i) if delivered by hand or courier, at the time of delivery;
 - (ii) if sent by first class recorded delivery (airmail if overseas), 2 Business Days after posting (6 Business Days if sent by airmail); or
 - (iii) if sent by electronic mail on a Business Day before 4.30pm (UK time), on that day or, in any other case, on the next Business Day.
- 14.7 No party shall assign, transfer or subcontract this Agreement or any rights or obligations hereunder without the prior written consent of the other parties, except where: (i) a party merges, is acquired or has substantially all of its assets acquired and the new entity or acquirer agrees to assume all of their obligations and liabilities under this Agreement; or (ii) NCC Group sub-contracts or assigns its rights or obligations to its Affiliates or a third party approved by NCC Group. NCC Group shall ensure that any such Affiliate or aforementioned third party is bound by the same confidentiality obligations as are contained in clause 8 and shall be responsible and liable for the acts and omissions of such Affiliate or such third party to the same extent as if such acts or omissions were by NCC Group.
- 14.8 This Agreement shall be binding upon and survive for the benefit of the successors in title and permitted assigns of the parties.
- 14.9 If any provision of this Agreement is declared too broad in any respect to permit enforcement to its full extent, the parties agree that such provision shall be enforced to the maximum extent permitted by law and that such provision shall be deemed to be varied accordingly. If any provision of this Agreement is found by any court, tribunal or administrative body of competent jurisdiction to be wholly or partly illegal, invalid, void or unenforceable, it shall, to the extent of such illegality, invalidity or unenforceability, be deemed severable and the remaining part of the provision and the rest of the provisions of this Agreement shall continue in full force and effect.
- 14.10 Save as expressly provided in this Agreement, no amendment or variation of this Agreement shall be effective unless in writing and signed by a duly authorised representative of each of the parties to it.
- 14.11 The parties shall not be liable to each other or be deemed to be in breach of this Agreement by reason of any delay in performing, or failure to perform, any of their obligations under this Agreement if the delay or failure was for a reason beyond that party's reasonable control (including, without limitation, fire, flood, explosion, epidemic, riot, civil commotion, any strike, lockout or other industrial action, act of God, war or warlike hostilities or threat of war, terrorist activities, accidental or malicious damage, or any prohibition or restriction by any governments or other legal authority which affects this Agreement and which is not in force on the date of this Agreement). A party claiming

to be unable to perform its obligations under this Agreement (either on time or at all) in any of the circumstances set out above must notify the other parties of the nature and extent of the circumstances in question as soon as practicable. If such circumstances continue for more than six months, any of the other parties shall be entitled to terminate this Agreement by giving one month's notice in writing.

- 14.12 No waiver by any party of any breach of any provisions of this Agreement shall be deemed to be a waiver of any subsequent or other breach and, subject to clause 6.6, no failure to exercise or delay in exercising any right or remedy under this Agreement shall constitute a waiver thereof.
- 14.13 NCC Group's Affiliates shall be entitled to enforce clause 11 of this Agreement subject to and in accordance with the Contracts (Rights of Third Parties) Act 1999 and the terms of this Agreement. Save as provided in this clause 14.13, this Agreement is not intended to create any right under the Contracts (Rights of Third Parties) Act 1999 which is enforceable by any person who is not a party to this Agreement and the rights of any third party under the said act are hereby expressly excluded.
- 14.14 Each of the Owner and the Customer warrant to NCC Group that as at the date of this Agreement it is not subject to any sanction, embargo or equivalent measure imposed by the laws of any jurisdiction or any union of jurisdictions (as "**Sanctions**") whether by virtue of such Sanctions being imposed on it individually or by virtue of it being resident in a certain jurisdiction or operating in a certain sector. If, during the term of this Agreement, the Owner or the Customer becomes subject to any Sanction it will immediately notify NCC Group in writing.
- 14.15 The Owner and the Customer jointly and severally warrant to NCC Group that the Materials (including, without limitation, the receipt by NCC Group of the Materials or the taking of any action by NCC Group in relation to the Materials that is contemplated by this Agreement including the receipt, holding, testing and/or releasing of the Materials (together the "**NCC Actions**")) are not, and to the best of their knowledge and belief are not expected to become, subject to any import, re-import, export or re-export controls, laws or regulations in any country that the Materials may be exported from, held in or delivered or released into under this Agreement ("**Export Control Laws**"). If at any time during the term of this Agreement, the Materials or the NCC Actions become subject to Export Control Laws the Owner and the Customer shall immediately notify NCC Group, providing all relevant details. Without prejudice to clause 14.11, NCC Group shall have no obligation to undertake any NCC Actions in relation to the Materials if to do so would put it in breach (or potential breach) of Export Control Laws and shall not be required to obtain any licence or other permission under Export Control Laws.
- 14.16 The Owner and the Customer warrant to NCC Group that in providing or disclosing any Personal Data in connection with this Agreement it has provided or disclosed such Personal Data in accordance with all applicable Data Protection Legislation and that it has collected and transferred such Personal Data to NCC Group in accordance with the Data Protection Legislation. In particular, each of the Owner and the Customer warrants and represents that it has obtained any relevant consent to such collection and transfer and the processing of the Personal Data by NCC Group in the execution of this Agreement. Each of the Owner and Customer shall indemnify NCC Group in respect of all direct, indirect and consequential losses, damages, costs, claims, proceedings, expenses and liabilities (including reasonable legal fees, other professional costs and costs of enforcement) incurred by NCC Group and its Affiliates arising out of or in connection with a breach of this clause 14.16.
- 14.17 NCC Group is responsible for complying with all laws that are generally applicable to an escrow agent operating in England. If however, the content of the Materials is such that additional laws or regulations are imposed on NCC Group by virtue of it receiving, holding, testing or releasing such Materials specifically then the Owner and the Customer shall be jointly and severally responsible for notifying NCC Group of all such additional laws and regulations.
- 14.18 NCC Group is committed to ensuring that there is no modern slavery or human trafficking in its supply chains or in any part of its business and its Anti Slavery and Human Trafficking Statement and Anti Slavery Policy are available upon request.
- 14.19 Without prejudice to clause 14.11, if any of NCC Group's obligations under this Agreement becomes illegal, prohibited or otherwise unlawful then NCC Group shall be relieved of such

obligation unless and until such obligation becomes permitted.

14.20 This Agreement may be executed in any number of counterparts and by different parties in separate counterparts. Each counterpart when so executed shall be deemed to be an original and all of which together shall constitute one and the same agreement.

Signed for and on behalf of [OWNERNAME]

Name: |

Position: | (Authorised
Signatory)

Signed for and on behalf of [CUSTOMERNAME]

Name: |

Position: | (Authorised
Signatory)

Signed for and on behalf of NCC GROUP ESCROW LIMITED

Name: |

Position: | (Authorised
Signatory)

Schedule 1 to the Escrow Agreement

The Material

Overall name of the Material: [SOFTWARENAME]

Detailed description (where applicable):

Schedule 2 to the Escrow Agreement

NCC Group's Fees

	DESCRIPTION	OWNER	CUSTOMER
1	Annual Fee (payable on completion of this Agreement and in advance of each anniversary thereafter)	[TBC]	[TBC]
2	Scheduled Update Fee (2 nd and subsequent scheduled deposits in any one year, payable on completion of this Agreement and in advance of each anniversary thereafter)	[TBC]	[TBC]
3	Unscheduled Update Fee (per unscheduled deposit)	[TBC]	[TBC]
4	Deposit Refresh Fee (plus NCC Group's reasonable expenses)	100%	Nil
5	Release Fee (plus NCC Group's reasonable expenses)	NIL	100%

Additional fees will be payable to NCC Group by the Owner (unless otherwise agreed between the parties) for the following where applicable:

- Storage Fee for deposits in excess of 1 cubic foot (physical deposits) or uploads of more than 100 GB content size (electronic deposits);
- Any variation, novation or replacement of this Agreement at the request of the Owner or the Customer;
- Media Check Fee for deposits consisting of more than 5 physical media items or 100 GB content size; and/or
- Media Check Fee for Media Checks which cannot be completed within NCC Group's reasonable timescale, for example due to the receipt of physical deposits on hardware other than CD/DVD/Blu Ray/USB Hard Drive or the requirement for non-specific applications or software or niche and non-mainstream skillsets to complete the test.

SCHEDULE 8

PRE-APPROVED CONSULTANTS AND SUB-CONTRACTORS LIST

PART A – Approved for the role of Independent Certifier

TUV SUD (UK) Limited, Octagon House Concorde Way, Segensworth North, Fareham, Hampshire, PO15 5RL company number 03224488.

[REDACTED]

[REDACTED]

PART C – Approved Sub-Contractors

Ryse Hydrogen Limited

Eighth Floor 6, New Street Square
New Fetter Lane
London
EC4A 3AQ

Company number 11158919
Website: ryse.team

Belfry Property Services Limited

Office 1, The Mousery
Beeches Road
Battlesbridge
Essex
SS11 8TJ

Company number: 02270295
Website: belfrybuild.com

B & M Contracting Limited

5 Load Street
Bewdley
Worcestershire
DY12 2AF

Company number: 08984995
Website: bandmcontracting.co.uk

SCHEDULE 9

PRICING SCHEDULE

Note – 2% Retention will be against the total of the lump sum prices for each completed Milestone in accordance with this Pricing Schedule which contains the Payment Schedule.

Further details on pricing are found at Schedule 3 Hydrogen Prices.

TfL scp 001600 HRS Contract: Pricing Matrix

Key to cell styles used:

	Contract information as agreed by the parties.
	Contract calculated data as agreed by the parties.

General	All prices are stated in 2018/19 prices in GBP (£) The parties agree this will be inflated through the Consumer Price Index (CPI) in accordance with Schedule 3 of the contract All prices include the 4% Nel Hydrogen handling fee
Tender Cost - Construction tab	<p>The parties agree that the prices include full design,build, testing and commissioning costs here on the basis of value of work completed in each period The parties agree that this cost includes any work completed off-site being charged to TfL</p> <p>Note TfL's financial year runs from 1st April to 31st March and is split into 13 even 4-week periods See tab 8 for full dates</p>
Tender Cost - Maintenance tab	The parties agree to the full costs for ten years of fully comprehensive maintenance on a period-by-period basis
Tender Cost - Fuel tab	<p>The parties agree that the full costs for fuel for ten years of operation on a period-by-period basis are shown The parties have agreed to assume a forecast of *380kg (variable) is dispensed per day, 364 days per year, for ten years, from day one of operation (the start of Period 1 2019/20)</p> <p>The parties have assumed that a minimum quantity of 100,100kg of hydrogen per annum (equivalent to 275kg per day) will be paid for by the Company irrespective of actual metered volume taken from the dispensers See terms and conditions of contract for details of the "Minimum Annual Amount" and how this will be calculated</p>
10 year pricing	The parties agree that itemised costs for the hydrogen refuelling station (the facility) as per the list are shown This matches the total construction cost (before CPI inflation) The parties have agreed on the estimated residual value of the facility at each year of the project
Additional pricing Information	The parties have agreed the items, and their costs, for each category for additional pricing information This excludes the escrow price

*This is an assumed figure for the purpose of pricing The Parties acknowledge that this amount will be variable based on the operation of the contract

Construction Cost

£2,269,989.00		Period by Period Costs													
Description of Works	Total Cost (i.e. contract price, 2018/19 prices)	Year	Period (2019-20)												
			1	2	3	4	5	6	7	8	9	10	11	12	13
Design, Build, Commissioning and Testing of the HRS at Perivale	£ 2,009,990	Year 1	£ 969,995	£ -	£ -	£ 649,997	£ -	£ -	£ -	£ -	£ 389,998	£ -	£ -	£ -	£ -
		Year	Period (2020-2021)												
		Year 2	1	2	3	4	5	6	7	8	9	10	11	12	13
	£ 259,999	Year 2	£ 259,999	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -

- 1 Contract Award
- 2 Detailed Design Complete
- 3 Start on site
- 4 Commissioning complete
- 5 2% Retention (not shown)

Additional Indicative Pricing Information

Cost breakdown for the following activities for the Facility at a new site (excluding Civils works at the new site, as this is unknown, and the decommissioning costs on Sheet 6)	Indicative Price
Removal/Transfer	[REDACTED]
Recommissioning	[REDACTED]
Combined Cost of hydrogen and fully comprehensive maintenance per kg for larger numbers of buses	[REDACTED]
[REDACTED]	[REDACTED]
Additional Price to include 700 bar Hydrogen Capability at	[REDACTED]

Schedule of prices for specific items

Escrow facility	[REDACTED]
Total compressor and dispenser maintenance costs for 10 years	[REDACTED]
Estimated cost if contract break clause is activated at 5 years	[REDACTED]
Estimated cost if contract break clause is activated at 7 years	[REDACTED]
Rationale for cost of contract break clause activations (100 words max)	
<p>The hydrogen supply contract is based on a 10 year supply. [REDACTED]</p> <p>[REDACTED]</p>	

TfL Financial Year Timetable

Financial Year	Last Day Period 1	Last Day Period 2	Last Day Period 3	Last Day Period 4	Last Day Period 5	Last Day Period 6	Last Day Period 7	Last Day Period 8	Last Day Period 9	Last Day Period 10	Last Day Period 11	Last Day Period 12	Last Day Period 13
2018-19	28/04/2018	26/05/2018	23/06/2018	21/07/2018	18/08/2018	15/09/2018	13/10/2018	10/11/2018	08/12/2018	05/01/2019	02/02/2019	02/03/2019	31/03/2019
2019-20	27/04/2019	25/05/2019	22/06/2019	20/07/2019	17/08/2019	14/09/2019	12/10/2019	09/11/2019	07/12/2019	04/01/2020	01/02/2020	29/02/2020	31/03/2020
2020-21	02/05/2020	30/05/2020	27/06/2020	25/07/2020	22/08/2020	19/09/2020	17/10/2020	14/11/2020	12/12/2020	09/01/2021	06/02/2021	06/03/2021	31/03/2021
2021-22	01/05/2021	29/05/2021	26/06/2021	24/07/2021	21/08/2021	18/09/2021	16/10/2021	13/11/2021	11/12/2021	08/01/2022	05/02/2022	05/03/2022	31/03/2022
2022-23	30/04/2022	28/05/2022	25/06/2022	23/07/2022	20/08/2022	17/09/2022	15/10/2022	12/11/2022	10/12/2022	07/01/2023	04/02/2023	04/03/2023	31/03/2023
2023-24	29/04/2023	27/05/2023	24/06/2023	22/07/2023	19/08/2023	16/09/2023	14/10/2023	11/11/2023	09/12/2023	06/01/2024	03/02/2024	02/03/2024	31/03/2024
2024-25	27/04/2024	25/05/2024	22/06/2024	20/07/2024	17/08/2024	14/09/2024	12/10/2024	09/11/2024	07/12/2024	04/01/2025	01/02/2025	01/03/2025	31/03/2025
2025-26	26/04/2025	24/05/2025	21/06/2025	19/07/2025	16/08/2025	13/09/2025	11/10/2025	08/11/2025	06/12/2025	03/01/2026	31/01/2026	28/02/2026	31/03/2026
2026-27	02/05/2026	30/05/2026	27/06/2026	25/07/2026	22/08/2026	19/09/2026	17/10/2026	14/11/2026	12/12/2026	09/01/2027	06/02/2027	06/03/2027	31/03/2027
2027-28	01/05/2027	29/05/2027	26/06/2027	24/07/2027	21/08/2027	18/09/2027	16/10/2027	13/11/2027	11/12/2027	08/01/2028	05/02/2028	04/03/2028	31/03/2028
2028-29	29/04/2028	27/05/2028	24/06/2028	22/07/2028	19/08/2028	16/09/2028	14/10/2028	11/11/2028	09/12/2028	06/01/2029	03/02/2029	03/03/2029	31/03/2029
2029-30	28/04/2029	26/05/2029	23/06/2029	21/07/2029	18/08/2029	15/09/2029	13/10/2029	10/11/2029	08/12/2029	05/01/2030	02/02/2030	02/03/2030	31/03/2030
2030-31	27/04/2030	25/05/2030	22/06/2030	20/07/2030	17/08/2030	14/09/2030	12/10/2030	09/11/2030	07/12/2030	04/01/2031	01/02/2031	01/03/2031	31/03/2031
2031-32	26/04/2031	24/05/2031	21/06/2031	19/07/2031	16/08/2031	13/09/2031	11/10/2031	08/11/2031	06/12/2031	03/01/2032	31/01/2032	28/02/2032	31/03/2032
2032-33	01/05/2032	29/05/2032	26/06/2032	24/07/2032	21/08/2032	18/09/2032	16/10/2032	13/11/2032	11/12/2032	08/01/2033	05/02/2033	05/03/2033	31/03/2033
2033-34	30/04/2033	28/05/2033	25/06/2033	23/07/2033	20/08/2033	17/09/2033	15/10/2033	12/11/2033	10/12/2033	07/01/2034	04/02/2034	04/03/2034	31/03/2034
2034-35	29/04/2034	27/05/2034	24/06/2034	22/07/2034	19/08/2034	16/09/2034	14/10/2034	11/11/2034	09/12/2034	06/01/2035	03/02/2035	03/03/2035	31/03/2035

NB.

Period one always starts on the 1st of April and period 13 always ends on the 31st March. This results in periods one and 13 not equalling 28 days (usually)

TfL 001600 Hydrogen Refuelling Station Commercial Innovation Matrix – Contract

Key to cell styles used:

	Contract information entered as agreed by the parties
	Contract information entered to match pricing matrix as agreed by the parties
	Calculation/formulae as agreed by the parties

General	All prices are stated in 2018/19 prices in GBP (£)
Increasing Scale at Perivale	The parties have agreed the difference in price per kg and operational site size if the number of hydrogen buses operating from Perivale was increased to 40 buses in total
	The agreed combined price per kg is taken from Tab 6 10 Year Pricing, Cell D19
	Total operational site footprint means that of TSM46 in the specification (footprint of area currently used as overnight bus parking no longer useable for overnight bus parking due to contractors solution (firewalls may be used) in square metres (sqm))
Increasing Scale in London	The parties have agreed the price per kg and time taken to prepare the hydrogen supply if the number of hydrogen buses operating across London was increased to 100 buses in total
	The combined price per kg cell is linked to where this has been entered before
Innovation scoring	The improvement score for price efficiency is calculated as $(a-b)/a$ where a = the 20 bus price per kg and b = the 40 (or 100) bus price per kg
	The improvement score for operational efficiency is calculated as $(d-c)/c$ where c = buses/sq ft for 20 buses and d = buses/sq ft for 40 buses
	The improvement score for supply scalability efficiency is calculated as $(f-e)/4e$ where e = buses per month for 20 buses and e = buses per month (original plus additional) for 100 buses

TfL_scp_001600 Hydrogen Refuelling Station Contract Commercial Innovation Matrix

Increasing Scale at Perivale

Price		Contract Data
	Combined price Per kg hydrogen and fully comprehensive maintenance for 20 buses (Tab 6. 10 Year Pricing, Cell D19)	█ █
	Combined price per kg hydrogen and fully comprehensive maintenance for 40 buses (an extra 20)	█ █

Operational Footprint Efficiency	Total operational site footprint original design (sqm)*	█
	Total operational site footprint for 40 buses (an extra 20 buses, sqm)*	█

Increasing Scale in London

Price		Contract Data
	Combined price per kg hydrogen and fully comprehensive maintenance for 20 buses (as above)	█ █
	Price per kg to supply hydrogen (with fully comprehensive maintenance of facility, but excluding any additional construction costs for on-site storage and dispensing) for 100 buses in London (an extra 80 buses)	█ █

Hydrogen Supply Scalability Efficiency	Time required to create a hydrogen supply for 20 buses in London (TfL assumes to be 12 months)	█
	Additional time required to extend the hydrogen supply for 100 buses in London (an extra 80 buses, months)	█

*This is an assumed figure for the purpose of pricing. The Parties acknowledge that this amount will be variable based on the operation of the contract.

The site related risks below are for LBSL's account, chargeable on an open book basis from Nel to LBSL.

Item	Civils Risk Description	Date Risk Will Pass
	Asbestos found in Snooker Room	After demolition works and related testing of material
	Discovering unusual ground condition that require piling or similar added works/retaining walls	After completion of foundation works
	Implication of Japanese Knotweed	After demolition works and related testing of material
	Contamination of soil that needs to be handled	Date of Commissioning of Project
	Resurfacing of new car park/trailer bay entrance	Date of Commissioning of Project
	Charges originating from Contractor's Civils Subcontractors who are delayed past the agreed date to start on site caused by Company delays to obtain planning permission.	After securing the planning permission
	Resurfacing of internal access road alongside the hydrogen refuelling station.	Date of Commissioning of Project
	Company change the requirements for design post contract.	Date of Commissioning of Project
	Total	

SCHEDULE 10
PROPERTY PROVISIONS

Dated

20[]

London Bus Services Limited

and

Nel Hydrogen A/S

Lease

relating to part of land at Alperton Lane, Western Avenue, Greenford UB6 8AA

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1A to Land Registration (Amendment) (No. 2) Rules 2005

LR1. Date of lease	20[]
LR2. Title number(s)	LR2.1 Landlord's title numbers [] LR2.2 Other title numbers None
LR3. Parties to this lease	Landlord London Bus Services Limited (whose company number in England is 03914787) whose registered office is at 55 Broadway, London, United Kingdom, SW1H 0BD Tenant Nel Hydrogen A/S a company incorporated under the laws of Denmark and registered under number 26933048, whose registered office is at Vejlevej 5, 7400 Herning, Guarantor None
LR4. Property	In the case of a conflict between this clause and the remainder of this lease, for the purposes of registration, this clause shall prevail. As defined as Demised Premises in clause 1.1 of this Lease
LR5. Prescribed statements etc.	None
LR6. Term for which the Property is leased	As defined as Contractual Term in clause 3 of this Lease
LR7. Premium	None
LR8. Prohibitions or restrictions on disposing of this lease	This lease contains provisions that prohibit or restrict dispositions.
LR9. Rights of acquisition etc.	LR9.1 Tenant's contractual rights to renew this lease, to acquire the reversion or another lease of the property, or to acquire an interest in other land

	None
	LR9.2 Tenant's covenant to (or offer to) surrender this lease
	None
	LR9.3 Landlord's contractual rights to acquire this lease
	None
LR10. Restrictive covenants given in this lease by the Landlord in respect of land other than the Property	None
LR11. Easements	LR11.1 Easements granted by this lease for the benefit of the Property
	The easements as specified in Schedule 2 to this Lease
	LR11.2 Easements granted or reserved by this lease over the Property for the benefit of other property
	The easements as specified in Schedule 4 to this Lease
LR12. Estate rent charge burdening the property	None
LR13. Application for standard form of restriction	None
LR14. Declaration of trust where there is more than one person comprising the Tenant	None

This Lease is made on

20[]

Between:

- (1) **London Bus Services Limited** (whose company number in England is 03914787) whose registered office is at 55 Broadway, London, United Kingdom, SW1H 0BD (**Landlord**) and
- (2) **Nel Hydrogen A/S** a company incorporated under the laws of Denmark and registered under number 26933048, whose registered office is at Vejlevej 5, 7400 Herning, (**Tenant**).

It is agreed:

1. Definitions

1.1 In this Lease:

Break Date	Either of the following: (a) [] (the 11 th anniversary of the Term); or (b) [] the 12 th anniversary of the Term) or any time thereafter
Common Parts	means the access road and such other part of the Estate as benefits the Demised Premises
Conduits	means all conducting media of whatever nature (including without limitation sewers drains pipes galleys gutters ducts flues watercourses channels subways wires and cables) including any tanks meters sprinklers fixings louvres cawls and any other ancillary apparatus attached thereto
Contaminated Land Regime	the contaminated land regime under Part 2A of the Environmental Protection Act 1990 (as amended from time to time) and any statutory instrument circular or guidance issued under it
Contractual Term	has the meaning given to it in clause 3
Demised Premises	means the premises described in Schedule 1 together with all landlord's fixtures and fittings from time to time in and about the same and all additions and alterations to such premises fixtures and fittings carried out during the Term but excludes tenant's fixtures and fittings
Estate	means the land at Alperton Lane, Western Avenue, Greenford, UB6 8AA (and any variations or extensions to it) together with any

buildings now or hereafter erected or in the course of erection thereon situate at (including the Demised Premises) and registered with title number AGL412004

Environment	the natural and man-made environment including all or any of the following media, namely air, water and land (including air within buildings and other natural or man-made structures above or below the ground) and any living organisms (including man) or systems supported by those media
Environmental Law	all applicable laws statutes secondary legislation bye-laws common law directives treaties and other measures judgments and decisions of any court or tribunal and legally binding codes of practice and guidance notes (as amended from time to time) in so far as they relate to the protection of the Environment.
Hazardous Material	means any material substance or organism known or reasonably known to be harmful to human health or the Environment or which is likely to cause an actionable nuisance
Hydrogen Refuelling System	means any hydrogen production, storage, compression, dispensing and other ancillary equipment installed by the Tenant (as "Contractor" under the Supply Agreement) on the Demised Premises for the use by Metroline Limited (company number 2328401).
Insured Risks	means fire storm tempest lightning explosion riot civil commotion and malicious damage terrorism earthquake impact aircraft (other than hostile aircraft) and (except in time of war) articles dropped therefrom bursting and overflowing of water tanks apparatus and pipes and such other risks against which the Superior Landlord may from time to time desire to insure including without limitation property owner's liability and in respect of which cover is available on usual terms on the open market
Landlord	includes the person for the time being entitled to the reversion immediately expectant on the determination of the Term
Necessary Consents	all consents licences permissions and approvals whether of a public or private nature which shall be relevant in the context including (without limitation) planning permission any listed building consents and any required consent of any superior landlord
Plan	means the plan attached to this Lease at Appendix 1
Planning Acts	means the Town and Country Planning Acts for the time being in force

President	means the President for the time being of the Royal Institution of Chartered Surveyors or any person authorised by him to make appointments
Superior Landlord	the landlord of the Superior Lease for the time being, including its successors in title as landlord of the Superior Lease from time to time
Superior Lease	the lease by virtue of which the Landlord holds the Demised Premises dated [] and made between (1) Metroline Travel Limited and (2) London Bus Services Limited and any deeds or documents made supplemental or ancillary to it
Superior Tenant's Covenants	the obligations, conditions and covenants in the Superior Lease to be complied with by the tenant of the Superior Lease from time to time
Supply Contract	the Hydrogen Refuelling Facility and Hydrogen Supply Agreement relating to premises at Perivale Garage, Alperton Lane, Greenford, London and made between (1) London Bus Services Limited and (2) Nel Hydrogen A/S.
Tenant	shall include the successors in title and personal representatives of the Tenant
Term	means the Contractual Term together with any continuation or extension thereof (whether statutory or otherwise)
Term Commencement Date	means the date of this Lease
Utilities	means water, soil, electricity and telephone utilities
VAT	means value added tax and any other tax supplementing or replacing it

2. Interpretation

In this Lease unless the context requires otherwise:

- 2.1 Where any party hereto consists of two or more persons any obligations stated or implied to be made by or with any of them shall be deemed to be made by or with them jointly and severally.
- 2.2 Any reference to Acts of Parliament generally or to any Act of Parliament or to the Planning Acts includes a reference to the relevant Act or Acts as amended or replaced from time to time and to any subordinate legislation order instrument plan regulation permission and direction made or issued thereunder or deriving validity therefrom.

- 2.3 The headings shall not affect the interpretation of this Lease.
- 2.4 The singular includes the plural and vice versa and the masculine includes the feminine and neuter and vice versa.
- 2.5 Any covenant by the Tenant not to do any act or thing shall include an obligation not to permit or suffer such act or thing to be done.
- 2.6 References to a clause or schedule are to the relevant clause or schedule in this Lease.
- 2.7 Any provision herein conferring on or reserving to the Landlord any right shall be construed as conferring that right also to any Superior Landlord and to any person authorised by the Landlord or any Superior Landlord.
- 2.8 Without prejudice to the terms of this Lease, where the consent or approval of the Landlord is required to any act or thing:
- 2.8.1 it will be a condition precedent to the grant of that consent or approval that, if required under the Superior Lease, the consent or approval of the Superior Landlord is first obtained; and
- 2.8.2 where the Landlord is under an obligation under this Lease not unreasonably to withhold or delay its consent or approval, the Landlord must, at the cost of the Tenant on a full indemnity basis, apply for and use all reasonable endeavours to obtain the consent or approval of the Superior Landlord where this is required under the Superior Lease.
- 2.9 References to the Demised Premises shall be read as references to the whole and each and every part of the Demised Premises.

3. Demise

The Landlord demises to the Tenant the Demised Premises together with the rights set out in Schedule 2 except and reserving to the Landlord the rights as mentioned in Schedule 4 to hold the same unto the Tenant for a term commencing on and including the Term Commencement Date and ending on and including [*Superior Lease end date less three days*] (**Contractual Term**) subject to all easements rights quasi-easements and privileges to which the Demised Premises are or may be subject and the provisions or matters contained or referred to in the documents referred to in Schedule 5.

Yielding and paying therefor:

- 3.1 From the Term Commencement Date the yearly rent of a peppercorn payable without any deduction or set-off on the Term Commencement Date (if demanded).

4. The Tenant's Covenants

The Tenant hereby covenants with the Landlord as follows:

- 4.1 Rent
- To pay the yearly rent as aforesaid
- 4.2 Interest

Without prejudice to the Landlord's other remedies to pay interest on any sum due under this Lease (whether formally demanded or not) which is not paid within fourteen (14) days of the date payment was due at two per cent per calendar month (compounded monthly) from the date payment was due to the date of payment

4.3 Outgoings

4.3.1 To pay all outgoings (including without limitation all rates taxes duties charges assessments and impositions whatsoever) payable now or at any time during the Term in respect of the Demised Premises or the ownership or occupation thereof **Provided That** the Tenant will not be responsible for the cost of any business rates or Utilities relating to the Demised Premises.

4.3.2 If any of such outgoings are payable in respect of the Demised Premises in common with other premises the Tenant will on demand pay to the Landlord a fair proportion thereof to be determined by the Landlord's surveyor in a reasonable manner (whose decision shall be binding on the Tenant) and to be recoverable as rent in arrears

4.3.3 To pay to the Landlord on demand a sum equivalent to any loss of rating relief suffered by the Landlord as a result of the Tenant being allowed rating relief in respect of any period before the end of the Term (however determined).

4.4 Repair

4.4.1 To keep the Demised Premises and any Tenant's alterations in good repair except damage caused by any of the Insured Risks as long as the insurance of the Demised Premises is not vitiated in whole or in part by any act or omission of the Tenant

4.4.2 To keep all plant in the nature of Landlord's fixtures in good repair and working order and, when necessary to do so, replace it.

4.4.3 To keep the whole of the Demised Premises clean neat and tidy and free from rubbish.

4.4.4 To repair all defects of which notice in writing shall be served on the Tenant by the Landlord and for which the Tenant is liable hereunder within a reasonable period after the date of service or forthwith in the case of emergency.

4.4.5 To notify the Landlord of any damage to or disrepair of the perimeter fence adjoining the Demised Premises.

4.5 Permitted use

To procure that the Demised Premises are not used otherwise than as a Hydrogen Refuelling System.

4.6 Restrictions on use

To procure that the Demised Premises and any rights granted to the Tenant hereunder are not used or exercised:

4.6.1 For any dangerous noxious offensive illegal or immoral purpose

- 4.6.2 In such a way as to cause an actionable nuisance to the Landlord the Superior Landlord the owners occupiers or users of adjoining or neighbouring property or to the public
- 4.6.3 For residential purposes
- 4.6.4 For any sale by auction
- 4.6.5 For any public meeting entertainment or exhibitions or for access by member of the public including passengers of the Tenant
- 4.6.6 To procure that no live creature is kept on the Demised Premises
- 4.6.7 In relation to any part of the Demised Premises with no building on to procure that no goods vehicles caravans or other things whatsoever are left deposited parked or unpacked there save those used in connection with the Tenant's business (and for the avoidance of doubt including such hydrogen supply vehicles as may be required in order for the Tenant's suppliers to transfer hydrogen into the Hydrogen Refuelling System for so long as is reasonably required and such hydrogen storage vehicles as may be required in order to store hydrogen prior to transferring it into the Hydrogen Refuelling System) or that of any other lawful occupier
- 4.6.8 In such a way as to discharge or permit to be discharged any solid matter or any fluid of a poisonous or noxious nature from the Demised Premises into any Conduits
- 4.7 Alienation
- Not to assign, underlet hold on trust or otherwise part with or share the possession or occupation of the Demised Premises or any part of the Demised Premises.
- 4.8 Notice of dealings
- Within one (1) month after any devolution or disposition of the Demised Premises to give notice thereof to the Landlord and to supply the Landlord with a certified copy of the instrument which effects or evidences the same and to pay to the Landlord's solicitors for the time being a reasonable fee (not less than Thirty Five Pounds (£35.00)) plus VAT for registering the same
- 4.9 Alterations
- Not to make any alterations or additions to the Demised Premises other than with the previous consent in writing of the Landlord and to provide the Landlord with plans and specifications thereof and upon the determination of this Lease to reinstate the Demised Premises if so required by the Landlord
- 4.10 Statutory requirements and notices
- In relation to all present and future Acts of Parliament (including without limitation the Planning Acts) relating to the Demised Premises the use of it or any additions or alterations to it permitted under this Lease or any Plant fixture or chattel for the time being at the Demised Premises or affixed thereto or the employment therein of any person:
- 4.10.1 To comply with such Acts of Parliament

- 4.10.2 To execute at the Tenant's own expense any work required by any such Act of Parliament whether such work is required to be carried out by the owner or the occupier or any other person
- 4.10.3 To pay and satisfy any charge or levy payable under any such Act of Parliament
- 4.10.4 To obtain and maintain at the Tenant's expense all licences Necessary Consents approvals and permissions required under any such Act of Parliament
- 4.10.5 To give full particulars to the Landlord of any notice direction order or proposal made given or issued to the Tenant by any local or public authority within twenty one (21) days of receipt and if so required by the Landlord to produce the same to the Landlord and without delay to take all necessary steps at the Tenant's expense to comply with the notice direction or order and at the request of the Landlord to make or join with the Landlord in making such objection or representation against or in respect of any proposal for such notice direction order or proposal as the Landlord shall reasonably deem expedient

Provided That the Tenant:

- (a) shall be responsible (subject to the limitation of the Tenant's liability set out in Clause 11) for contamination by and/or removal of any Hazardous Material introduced into onto or under the Demised Premises by the Tenant or its contractors;
 - (b) shall be responsible for contamination by and/or removal of any Hazardous Material, whether pre-existing or not if any leaching or escape of any Hazardous Material arises as a result of the Tenant creating any pathway or otherwise carrying on activities resulting in the release, escape, leak or spillage of Hazardous Material from its existing location.
- 4.10.6 To not (unless legally obliged to do so) disclose to any third party the existence of any Hazardous Material or invite any third party to inspect the Demised Premises without the Landlord's prior written consent.
 - 4.10.7 To comply in all respects with the Planning (Hazardous Substances) Regulations 2015 if required including the necessary consents for the presence of hazardous substances on the Demised Premises
- 4.11 Planning
- 4.11.1 Not to apply for or implement any planning permission or give notice to any authority of an intention to commence or carry out any Development or enter into any agreement with any planning authority without the Landlord's previous consent in writing (not to be unreasonably withheld or delayed if the Landlord has already consented to the Development in question).
 - 4.11.2 **Development** in this clause has the meaning given to it by the Planning Acts.
- 4.12 Aerials signs and advertisements
- 4.12.1 not to erect or allow the erection of any poles, mast or wire upon the Demised Premises

- 4.12.2 Not to affix to or exhibit on the outside of the Demised Premises or to or through any window of nor display anywhere on the Demised Premises any placard sign notice fascia board or advertisement other than the Tenant's usual trade, directional and health and safety signs and any signs, notice boards or logos required by any funding body in respect of the Demised Premises.
- 4.13 Protection of the Demised Premises and adjoining premises
- 4.13.1 To keep clean and unobstructed all Conduits at any time during the Term in or forming part of the Demised Premises and not to overload or use such Conduits (or any other conduits in the Estate) for any purpose for which they were not constructed and not to place any foreign substance therein.
- 4.13.2 Not to interfere with or otherwise cause access to any such Conduits and any other Conduits under or near the Demised Premises to be or become more difficult than the same now is.
- 4.13.3 Not to do anything on the Demised Premises which would remove support from or endanger any adjoining land buildings or structures in any way whatsoever.
- 4.13.4 Not to overload or do anything likely to lead to the overloading of the Demised Premises.
- 4.14 Information
- 4.14.1 On making an application for any consent required under this Lease to disclose to the Landlord such information as the Landlord may reasonably require to enable it to deal with such application.
- 4.14.2 To produce on demand full particulars of all derivative or occupational rights existing in respect of the Demised Premises however remote or inferior.
- 4.14.3 To notify the Landlord in writing immediately of any defect in the Demised Premises which might give rise to a duty imposed by common law or statute on the Landlord in favour of the Tenant or any other person.
- 4.15 Landlord's costs
- To pay to the Landlord all expenses (save for the avoidance of doubt in respect of such costs associated with the initial installation of the Hydrogen Refuelling System) including without limitation costs fees charges disbursements and expenses and any VAT thereon (including without limitation those payable to counsel solicitors surveyors and bailiffs) reasonably and properly incurred by the Landlord in relation or incidental to:
- 4.15.1 Every application made by the Tenant for a consent or approval required by the provisions of this Lease whether granted or refused or proffered subject to any qualification or condition or whether the application is withdrawn though not if consent or approval is unlawfully withheld or delayed.
- 4.15.2 The preparation and service of a notice under the Law of Property Act 1925 Section 146 or incurred by or in contemplation of proceedings under Sections 146 or 147 of that Act notwithstanding that forfeiture is avoided otherwise than by relief granted by the Court.
- 4.15.3 The recovery or attempted recovery of arrears of rent or other sums due from the Tenant.

- 4.15.4 Any steps taken in contemplation of or in connection with the preparation and service of a schedule of dilapidations during or after the expiration of the Term.
- 4.15.5 Any steps taken in contemplation of or in connection with the enforcement of or in remedying any breach of any of the Tenant's obligations hereunder.
- 4.16 Protection of Easements
- 4.16.1 Not to permit any easement to be acquired or encroachment made against or upon the Demised Premises and promptly to give notice to the Landlord of any attempt to make or acquire the same and to take such steps (whether by legal proceedings or otherwise) to prevent the same from being acquired or made as the Landlord may reasonably require.
- 4.16.2 To notify the Landlord immediately if any person does or threatens to do anything to obstruct such access of light or air and to take such steps as the Landlord reasonably requires in respect of such actual or threatened obstruction.
- 4.17 Indemnities
- To be responsible for and to keep the Landlord fully indemnified against all damage damages losses costs expenses actions demands proceedings claims and liabilities made against or suffered or incurred by the Landlord arising directly or indirectly out of:
- 4.17.1 Any act omission or negligence of the Tenant its servants or agents or any person at the Demised Premises expressly or impliedly with the Tenant's authority; or
- 4.17.2 Any breach or non-observance by the Tenant of the covenants conditions or other provisions of this Lease or any of the matters to which this demise is subject.
- 4.18 Reletting and Sale Boards
- 4.18.1 To permit the Landlord to fix and retain on the Demised Premises in such place as the Landlord shall reasonably determine notice boards for the sale of the Landlord's interest in the Demised Premises and in the last six (6) months of the Term for the reletting of the Demised Premises.
- 4.18.2 Not to take down or obscure any such boards.
- 4.18.3 To permit all persons authorised by the Landlord to view the Demised Premises at all reasonable times by prior appointment.
- 4.19 Permit Landlord to enter
- Without prejudice to any other right granted to or excepted and reserved by the Landlord hereunder to permit the Landlord to enter the Demised Premises with workmen and appliances if appropriate after reasonable prior written notice (save in emergency) for any reasonable purpose including without limitation for the purpose of inspecting surveying testing and measuring the Demised Premises the persons entering to act in a reasonable manner and to make good any damage caused to the Demised Premises.
- 4.20 To comply with all requirements or recommendations of the insurer of the Demised Premises and not to vitiate insurance

- 4.21 Not to vitiate insurance
- 4.21.1 Not to do bring or keep at the Demised Premises anything which is or may become dangerous or offensive.
- 4.21.2 Not to do anything to cause the insurance of the Demised Premises or any adjoining or neighbouring property to become void voidable or (without paying the sum in question) the premium to be increased.
- 4.21.3 To comply with all recommendations of the appropriate fire authority.
- 4.21.4 To notify the Landlord in writing immediately if the Demised Premises are destroyed or damaged by any Insured Risk.
- 4.21.5 Not to effect any separate insurance of the Demised Premises against loss or damage by any of the Insured Risks and to hold any moneys received under any policy maintained in breach of this paragraph on trust for the Landlord.
- 4.21.6 In the event of the Demised Premises or any adjoining or neighbouring property of the Landlord or any part thereof being destroyed or damaged by any Insured Risk and the moneys under any insurance against the same effected thereon by the Landlord or any superior landlord being wholly or partially irrecoverable by reason solely or in part of any act or default of the Tenant or any person at the Demised Premises with the express or implied authority of the Tenant or the Tenant's servants or agents then in every such case the Tenant will forthwith on demand pay to the Landlord the whole or (as the case may require) the irrecoverable amount.
- 4.22 Yield up
- 4.22.1 At the expiration or sooner determination of the Term to yield up the Demised Premises in accordance with the terms of this Lease and to remove all signs erected by the Tenant and all tenant's fixtures and all chattels and to immediately make good all damage caused by such removal and to give up all keys to the Demised Premises to the Landlord.
- 4.22.2 For the avoidance of doubt the Hydrogen Refuelling System remains the property of the Landlord and is to remain in situ at the Demised Premises following expiration or sooner determination of the Term.
- 4.23 VAT
- 4.23.1 To pay to the Landlord any VAT chargeable in respect of any supplies made by the Landlord to the Tenant hereunder.
- 4.23.2 Where the Tenant is liable hereunder to reimburse the Landlord in respect of any costs incurred by the Landlord the Tenant shall also reimburse any VAT on such costs save to the extent that the VAT is recoverable by the Landlord from H.M. Customs & Excise.
- 4.23.3 Where such reimbursement shall be regarded by H.M. Customs & Excise as consideration for supplies by the Landlord to the Tenant the Tenant shall pay to the Landlord any VAT chargeable by the Landlord on any such supplies.
- 4.23.4 Any rent or other consideration payable in respect of any supply or supplies by the Landlord to the Tenant shall be deemed to be exclusive of VAT which shall be added where

appropriate to such rent or other consideration at the appropriate rate at the date of payment.

4.24 Estate Regulations

4.24.1 Not to permit any vehicles to park on the roads or accessways within the Estate (save as permitted in accordance with paragraph 4 of Schedule 2).

4.24.2 To be responsible for the collection of all refuse from the Demised Premises.

4.24.3 To comply with all reasonable regulations for security or for the proper management of the Estate notified by the Landlord to the Tenant from time to time.

4.25 Traffic Management

To be responsible for the safe management of the Tenant's traffic where necessary in order to comply with health and safety requirements and all applicable regulation including without limitation safe reversing providing additional lighting and designated pedestrian walkways and to impose and observe a maximum speed limit of not more than ten miles per hour in respect of all such traffic.

4.26 To repair on notice

4.26.1 To make good any defect in repair maintenance decoration cleansing or condition of the Demised Premises for which the Tenant is liable under this Lease within two (2) months after service on the Tenant of a notice specifying such defect (or sooner if the Landlord reasonably requires)

4.26.2 If the Tenant fails to make good such defect within such period to allow the Landlord to enter the Demised Premises and make good such defect and the costs to the Landlord of and incidental to making good such defect shall be repaid by the Tenant to the Landlord as a debt

4.27 Compliance with the Superior Lease

The Tenant must comply with the Superior Tenant's Covenants so far as they are applicable to the letting of the Demised Premises and are not the responsibility of the Landlord under this Lease.

5. Landlord's Covenants

The Landlord hereby covenants with the Tenant to the intent to bind itself and its successors in title the persons for the time being entitled to the reversion expectant on the determination of the Term as follows:

5.1 Quiet Enjoyment

That the Tenant paying the rent hereby reserved and performing and observing its obligations hereunder may peaceably hold and enjoy the Demised Premises during the Term without any interruption by the Landlord or any person lawfully claiming through under or in trust for it

5.2 Business Rates

The Landlord shall pay the cost of any business rates payable in respect of the Demised Premises

5.3 Utilities

The Landlord shall pay to the suppliers and indemnify the Tenant against all charges for Utilities used at the Demised Premises (including meter rents and installation charges).

5.4 Superior Lease

5.4.1 The Landlord shall pay the rent reserved by any Superior Lease under which it holds the Estate as and when it falls due but this covenant shall be by way of indemnity only for the Tenant

5.4.2 The Landlord shall at the request and cost of the Tenant enforce the covenants on the part of the Superior Landlord in the Superior Lease to the extent such relate to and affect the Demised Premises and the rights and amenities thereby enjoyed

6. Provisos

6.1 Re-entry

6.1.1 If any of the rent or other moneys payable hereunder or any part thereof shall be unpaid for fourteen (14) days after any of the days hereinbefore appointed for payment thereof whether or not the same shall have been lawfully demanded; or

6.1.2 If the Tenant for the time being is a corporation and shall change from having unlimited to limited liability or shall enter into liquidation whether compulsorily or voluntarily (except for reconstruction or amalgamation) or shall enter into a voluntary arrangement or shall have an administration order made in relation to it or shall have a receiver or manager appointed or shall dispose of a substantial part of its assets or undertaking or is struck off the Register of Companies or is dissolved or ceases to exist under the laws of the country or state of its incorporation; or

6.1.3 If the Tenant not being a corporation shall have a bankruptcy order or interim order made against him or shall enter into a voluntary arrangement or shall make any assignment for the benefit of his creditors or shall make any arrangement with his creditors for the liquidation of his debts by composition or otherwise; or

6.1.4 If any covenant on the Tenant's part herein contained shall not be performed or observed; or

6.1.5 if the Tenant by act or omission puts the Superior Lease at risk of being forfeited by the Superior Landlord;

then and in any of the said cases it shall be lawful for the Landlord or any person duly authorised by the Landlord in its behalf to re-enter repossess and enjoy the Demised Premises or any part thereof in the name of the whole and without prejudice to any right of action or remedy of the Landlord in respect of any antecedent breach of any of the covenants by the Tenant

6.2 Service of Notices

Any notice served:

6.2.1 On the Tenant shall be well and sufficiently served if sent through the First Class post by pre-paid letter addressed to the Tenant at (if they are corporations) their registered office or (if not) at its last known address, or to the Demised Premises, or if left at the Demised Premises.

6.2.2 On the Landlord shall be well and sufficiently served if sent by the Tenant by registered post addressed to the Landlord at its registered office or if sent as aforesaid addressed to any agent from time to time authorised by the Landlord to receive the rent payable hereunder

and any demand or notice sent by post in either case shall be deemed to have been delivered in the usual course of registered post.

6.3 Neighbouring Property

The Landlord shall have power at all times to do or permit to be done anything it may think fit with (and notwithstanding anything to the contrary herein expressed or implied the Tenant shall not be entitled to any rights which would restrict or interfere with the free user of) any adjoining or neighbouring land for building or any other purpose.

Provided that this clause shall not negate nor materially limit the grant of rights contained in Schedule 2.

6.4 Removal of Tenant's property

6.4.1 If at such time as the Tenant has vacated the Demised Premises after the determination of the Term (however determined) any property of the Tenant shall remain in the Demised Premises and the Tenant shall fail to remove the same within seven (7) days after being served with a notice by the Landlord requesting the Tenant to do so then the Landlord may as the agent of the Tenant (and the Landlord is hereby appointed by the Tenant to act in that behalf) sell such property and shall then hold the proceeds of sale (after deducting the costs and expenses of removal storage and sale reasonably and properly incurred by it and any sums due to it by the Tenant) to the order of the Tenant provided that the Tenant shall indemnify the Landlord against any liability incurred by it to any third party whose property shall have been sold by the Landlord.

6.4.2 The Hydrogen Refuelling System remains the property of the Landlord and is to remain in situ at the expiry of the Term or sooner determination of this Lease.

6.5 Disputes

In case any dispute shall during the Term arise between the Tenant and the tenants and occupiers of any adjoining or neighbouring property belonging to the Landlord relating to the Conduits serving the Demised Premises or any such adjoining or neighbouring property or any fence roadway or other thing used in common with the Demised Premises and any such property the same shall from time to time be settled and determined by the Landlord which determination shall be final and binding and the costs to the Landlord shall be borne equally amongst the parties in dispute and provided that in the event that any dispute shall arise between the Landlord and the Tenant with regard to the extent of the access road the Landlord may instruct the Landlord's surveyor to mark the boundary of such area on the ground and the Landlord may employ a contractor to paint a line delineating such boundary

and all costs and expenses thereby incurred by the Landlord shall be shared equally between the parties

6.6 Compensation

Subject to the provisions of any Act of Parliament to the contrary the Tenant shall not be entitled on quitting the Demised Premises to any compensation (including without limitation under Section 37 of the Landlord and Tenant Act 1954)

6.7 Standard of work

Any work carried out to the Demised Premises by the Tenant (whether of repair or otherwise) shall be carried out to the reasonable satisfaction of the Landlord's surveyor

6.8 Easements

The Tenant shall not be entitled to any rights not expressly conferred by this Lease and Section 62 of the Law of Property Act 1925 shall not apply

6.9 Commission

The Landlord may retain absolutely any commission in respect of any insurance effected hereunder

6.10 Jurisdiction

6.10.1 This Lease shall be governed by English law

6.10.2 The parties submit to the non-exclusive jurisdiction of the English courts

6.11 Arbitration

Whenever any dispute under this Lease is to be determined by arbitration the arbitrator shall have the same powers of joinder as the High Court in relation to any other dispute between the Landlord and any other tenant or occupier of adjoining or neighbouring property belonging to the Landlord

6.12 Use

No representation or warranty is made or given by the Landlord that the Demised Premises may lawfully be used (whether under the Planning Acts or otherwise) for the use permitted hereunder or is otherwise suitable for the Tenant's proposed use

6.13 VAT

Nothing in this Lease shall impose any obligation on the Landlord to make or refrain from making any election that the supplies made under this Lease shall not be exempt from VAT

7. Landlord and Tenant Act 1954

7.1 The Tenant confirms that before it became contractually bound to enter into the tenancy created by this Lease:

- 7.1.1 the Landlord gave the Tenant a notice dated 23 March 2017 in relation to the tenancy created by this Lease (Notice) in a form complying with schedule 1 to the Regulatory Reform (Business Tenancies) (England and Wales) Order 2003 (the Order); and
- 7.1.2 the Tenant, or a person authorised by the Tenant in relation to the Notice, made a statutory declaration (declaration) dated [] in a form complying with schedule 2 to the Order.
- 7.2 Where the declarant is not the Tenant, the Tenant confirms that the declaration was made with authority on its behalf.

The Landlord and Tenant agree to exclude s24 to s28 (inclusive) 1954 Act in relation to the tenancy created by this Lease.

8. Third Parties

A person who is not party to this lease shall have no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this lease. This clause does not affect any right or remedy of any person which exists or is available otherwise than pursuant to that Act.

9. New Tenancy

This Lease constitutes a new tenancy for the purposes of the Landlord and Tenant (Covenants) Act 1995.

10. Break Clause

10.1 Right to Terminate Lease on any Break Date

The Landlord may terminate this Lease on any Break Date by giving to the Tenant not less than six (6) months' prior notice

10.2 Right to terminate Lease on termination of the Supply Contract

The Landlord may terminate this Lease immediately on providing written notice to the Tenant should the Supply Contract be terminated or otherwise come to an end.

10.3 Consequences of Termination

Termination of this Lease shall terminate the Term but is without prejudice to any claim in respect of any prior breach of the obligations contained in this Lease (including the obligations contained in this clause 10)

10.4 Time of the Essence

Time shall be of the essence of the dates and notice periods in this clause 10 but nothing in this clause 10 shall make time of the essence of any provision concerning the ascertainment of rent or any other provision of this Lease

11. Tenant Indemnity

- 11.1 Subject and without prejudice to the Landlord's obligations as "the Company" pursuant to the Supply Contract and to the terms of clause 11.3, the Tenant hereby agrees to indemnify

the Landlord against all and any outgoings liabilities costs expenses and other burdens arising from any liability under Environmental Law (including without limitation any liability under the Contaminated Land Regime) arising whether in respect of Hazardous Material or otherwise in on under or emanating from the Demised Premises as a result of the Tenant's use of the Demised Premises and any works undertaken by or for the Tenant at the Demised Premises and/or the Tenant's operation of the Hydrogen Refuelling System

- 11.2 In respect of any claim covered by an indemnity given to the Landlord by the Tenant under this Lease the Landlord must:
- 11.2.1 give notice to the Tenant of the claim as soon as reasonably practicable after receiving notice of it;
 - 11.2.2 provide to the Tenant on reasonable request any information and assistance in relation to the claim as the Tenant may reasonably require;
 - 11.2.3 have due regard to any representations made by the Tenant in relation to the claim;
 - 11.2.4 not make any settlement or compromise in relation to any claim without the prior consent of the Tenant, such consent not to be unreasonably withheld or delayed
 - 11.2.5 permit the Tenant at the Tenant's expense, to defend any actions claims or proceedings in the name of the Landlord subject to first providing the Landlord with such security for costs as the Landlord may reasonably require;
 - 11.2.6 not pursue any claim under this clause in respect of any sums paid before legal liability for payment has been established; and
 - 11.2.7 use all reasonable endeavours to mitigate its loss where it is reasonably practicable for the Landlord to do so.
- 11.3 It is acknowledged and agreed between the Landlord and the Tenant that subject to clause 4.10.5 the Tenant will not have any liability to make good, rectify, remove, treat or make harmless any Hazardous Material in on or under the Demised Premises existing prior to the date on which the Tenant first took occupation of the Demised Premises.

In Witness whereof this Lease is executed in manner hereinafter appearing the day and year first before written

Schedule 1 - Particulars of the Demised Premises

All that property known as Land at Alperton Lane, Western Avenue, Greenford UB6 8DW for the purposes of identification shown edged red on the Plan together with all buildings now or hereafter erected thereon and all Conduits exclusively serving the same and which premises shall include the walls and structures thereof but excludes any underground fuel tanks and underground pipes serving them.

Schedule 2 - Particulars of rights granted to the Tenant

1. The right for the Tenant and all persons authorised by it for the purposes of obtaining access to and egress from the Demised Premises to pass and repass at all times with or without vehicles over and along the access road.
2. The free and uninterrupted passage of Utilities from and to any part of the Demised Premises by and through all Conduits which are now or may during the Term be in or upon any adjoining or neighbouring part of the Estate.
3. The right to support as now exists for the Demised Premises from any adjoining premises.
4. The right of access to and egress from the Demised Premises and to pass and repass with or without vehicles at times to be agreed with the Landlord over such parts of the Estate as the Landlord reasonably designates from time to time and complying at all times with any regulations that the Landlord may make from time to time as to security timing and coordination.
5. The rights in paragraph 1-4 of this Schedule are granted:
 - 5.1 in common with the Landlord and all others enjoying equivalent or similar rights;
 - 5.2 for the purposes only and to the extent which is reasonably necessary for the Permitted Use;
 - 5.3 so far as they can be granted by the Landlord;
 - 5.4 subject to the Landlord's rights and any restrictions; and
 - 5.5 to such of the Tenant's staff contractors and agents to the extent reasonably necessary for the Permitted Use or compliance with the Tenant's obligations under this Lease.

Schedule 3 - The provisions of Section 62 of the Law of Property Act 1925 are excluded from this Lease and the Tenant shall not have the benefit of any rights other than those contained in this Schedule.

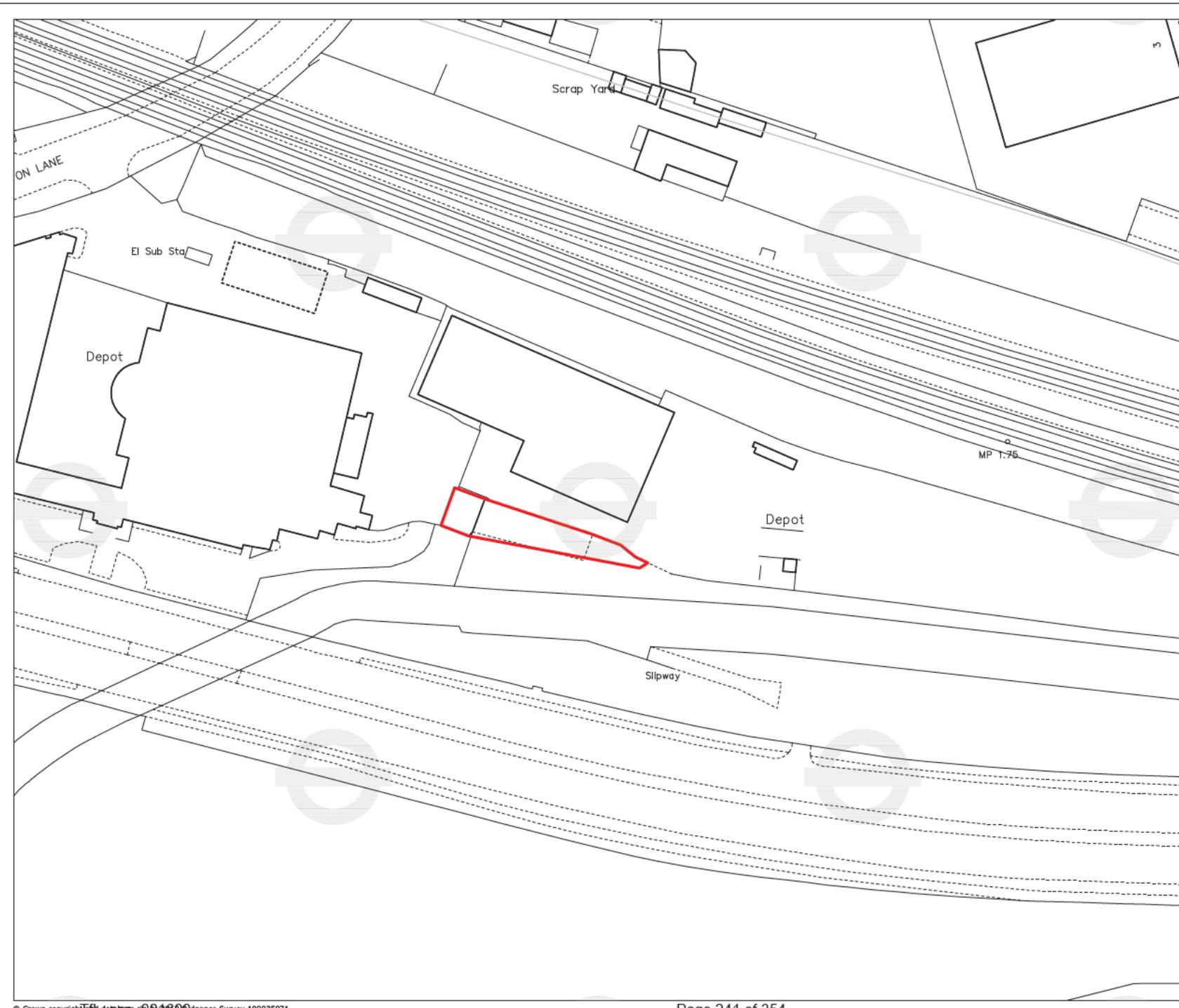
Schedule 4 - Particulars of reservations and exceptions in favour of the Landlord

1. The right after reasonable prior written notice (save in emergency) to enter the Demised Premises with or without workmen for the purpose of observing or performing obligations under this Lease or to inspect the Demised Premises or for carrying out any works (whether of construction installation connection repair or otherwise) of or in respect of any property adjoining or neighbouring the Demised Premises or any Conduits the persons so entering making good any damage to the Demised Premises resulting from the exercise of such rights and complying with the reasonable requirements of the Tenant in relation to the exercise of such rights.
2. The free and uninterrupted passage of Utilities from and to other parts of the Estate or any other adjoining or neighbouring property of the Landlord by and through all Conduits which are now or may be in under or over the Demised Premises.
3. The right to pass and repass over that part of the Demised Premises as may be reasonably required from time to time for the purpose of access to and egress from that part of the Estate retained by the Landlord subject to the reasonable requirements of the Tenant in relation to the exercise of such right.
4. The right for the Landlord and Superior Landlord to enter the Demised Premises and use the Hydrogen Refuelling System for the Permitted Use.

Schedule 5 - Document containing matters to which the demise is subject

Matters referred to in the registers of title to the Estate registered at the Land Registry with title number AGL412004 at the date of this Lease

Appendix 1 - Lease Plan

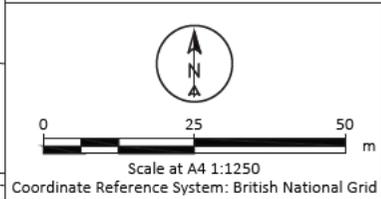


TfL Operational Property
 Commercial Development Directorate
 55 Broadway
 London, SW1H 0BD

MAYOR OF LONDON

Land at Perivale Bus Garage Alperton Lane

Legend
 H² fuel area



Date	20/03/2019
Initials	RS
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SCHEDULE 11

SERVICE LEVELS

Service Levels

1. SERVICE LEVEL MONITORING

1.1 A "Service Level" is defined as the rate that measures the performance of the Contractor at the Refuelling Facility. Service Levels shall be measured for the Contract in accordance with this Schedule for:

1.1.1 The operation and maintenance of the Refuelling Facility and,

1.1.2 Support and the processes to facilitate the monitoring of these Service Levels.

1.2 The Contractor shall implement systems to measure and monitor the performance of its services to ensure that the Refuelling Facility and support functions adhere to the Specification and other requirements of this Agreement.

1.3 The Contractor shall report its performance in meeting the Service Levels by submitting Management Information Data in respect of each PI (as defined in paragraph 1.10), which will be monitored and assessed by the Company each TfL four-weekly Reporting Period in accordance with the Specification.

1.4 In addition to providing specified Management Information Data each TfL Reporting Period in accordance with section 2.7 of the Specification, the Contractor shall measure and provide such other data as is reasonably required by the Company for the purposes of monitoring the Contractor's performance in meeting the Service Levels below in accordance with Volume 2 the Specification.

1.5 The Contractor shall be responsible for ensuring that all Management Information Data is accurately prepared, using up to date and accurate data.

1.6 In complying with its obligations under section 2.10 of the Specification in respect of data reporting, the Contractor shall:

1.6.1 make available Management Information Data to the Company via a secure e-portal (a "Portal"), provided that:

1.6.1.1 the Contractor shall ensure that the Management Information Data provided via the Portal is an accurate reflection of the data held by the Contractor;

1.6.1.2 the Contractor shall be required to provide to the Company such number of individual log-in permissions to the Portal as the Company may require;

1.6.1.3 the provision of the Management Information Data via the Portal shall in all other respects be in compliance with the Specification;

1.6.1.4 the Portal must have sufficient functionality to enable the Company to automatically generate a report setting out the relevant Management Information Data; and

1.6.1.5 where the Portal is unavailable for any reason, the Contractor shall provide the required Management Information Data via electronic transfer and in so doing shall ensure that all such Management Information Data is compatible with the Company's

software and is an accurate reflection of the data held by the Contractor; and,

- 1.6.2 at the Company's request, transfer electronically such Management Information Data (or reports in relation to the same) as the Company may specify and shall at all times ensure that all such Management Information Data, or reports in relation to the same, are compatible with the Company's software and are an accurate reflection of the data held by the Contractor.
- 1.7 The Contractor shall ensure that the production and analysis of the Management Information Data does not affect the performance of any other element of the services provided by the Contractor.
- 1.8 If the Company or the Contractor identify any errors, omissions or discrepancies in the Management Information Data, without prejudice to any other rights and remedies of the Company, the Contractor shall:
 - 1.8.1 promptly correct such errors, omissions or discrepancies; and,
 - 1.8.2 republish the Management Information Data within five (5) Business Days of such errors, omissions or discrepancies being identified, or such other period as the Parties may agree.
- 1.9 Where the Contractor believes there are mitigating circumstances for any inaccurate and/or unavailable Management Information Data (as referred to in paragraph 1.8), the Contractor may present to the Company:
 - 1.9.1 reasons why such data is inaccurate and/or unavailable;
 - 1.9.2 details of when the data will be accurate and/or available;
 - 1.9.3 what actions shall be taken to ensure it shall be accurate and/or available in future; and,
 - 1.9.4 provide reasonable evidence that the relevant Service Levels were not adversely affected during the period of time in which the relevant data was inaccurate and/or unavailable.

It is then at the Company's discretion as to whether these mitigating circumstances are accepted and that data can be temporarily removed from the Management Information Data for the relevant Reporting Period.
- 1.10 The table in Annex A (Performance Indicator Table) to this **Schedule 11** sets out the Performance Indicators ("**PIs**") and the Service Levels (the "**Performance Indicator Table**"). The Performance Indicator Table sets out the following details in respect of the PIs:
 - 1.10.1 the 'Performance Indicator Title' column in the Performance Indicator Table gives the name of the PI on which the performance of the Contractor shall be measured;
 - 1.10.2 the 'Start Point' column in the Performance Indicator Table details the time from when the PI shall start to be measured (the "**Start Point**");
 - 1.10.3 the 'End Point' column in the Performance Indicator Table details the time at which the relevant PI ceases to be measured (the "**End Point**");
 - 1.10.4 the 'Acceptable Service Level' column in the Performance Indicator Table specifies the minimum Service Level that is expected of the Contractor and
 - 1.10.5 the 'Service Credit' column specifies the number of Service Credits that apply to any falling short against the Acceptable Service Level.

2. **SERVICE FAILURES**

2.1 Service Credits are used for the cumulative measurement of output performance of the Contractor against a given set of criteria.

2.2 Details of the service credit regime are shown within:

2.2.1 Table One: Incidents; and

2.2.2 Annex A: Performance Indicator Table;

2.2.3 the Escalation Procedure; and

2.2.4 Table 2: Summary of Escalation Procedure as below.

2.3 If the Contractor fails to meet any of the Acceptable Service Levels in any Reporting Period the Contractor shall present to the Company:

2.3.1 reasons for the failure to meet the Acceptable Service Level(s); and

2.3.2 what actions shall be taken to ensure that Acceptable Service Level(s) are met in the following Reporting Period.

3. **PERFORMANCE INDICATORS**

Performance Indicator 1 HRS Availability

3.1 Subject to paragraphs 3.4, 3.5 and 3.6 below, the Refuelling Facility (also referred to in this Schedule as the HRS) shall be available for use for more than 99.0% of the required window as defined in the Specification.

3.2 The HRS is defined as "Available" for use below if there is no issue that prevents it from:

3.2.1 allowing a bus to start a refuelling session;

3.2.2 fuelling the same bus; and

3.2.3 allowing the same bus to end a refuelling session

during the eight hour period between 1900 and 0300, and references to "unavailable" will be construed accordingly.

3.3 "HRS Availability" for the purposes of the Service Level will be calculated by dividing the sum of the time in minutes that the HRS, within the scope of the Agreement, was both Available during the applicable Reporting Period (excluding scheduled maintenance time) by the sum of the maximum time in minutes that the HRS, within the scope of the Agreement, could be both Available during the applicable Reporting Period, expressed as a percentage, as illustrated below:

$$\text{HRS Availability} = \frac{\text{Actual minutes HRS available in Reporting Period (excluding planned maintenance)}}{\text{Total minutes in the Reporting Period (excluding planned maintenance)}}$$

Exclusions

3.4 In the event of a power failure, where such failure is outside of the control of the Contractor, the HRS affected by such power failure shall not be included in the calculation of HRS Availability for the purposes of this Service Level for so long as the power failure continues, provided that, to the extent that any continuation of the power failure is not

attributable to a failure by the Contractor to carry out any action required by the Distribution Network Operator (DNO) to remedy the fault. Should the Contractor fail to carry out any action required by the DNO, any such continuation of the HRS fault shall be included in the calculation of HRS Availability.

- 3.5 Where the HRS is unavailable as a result of accidental user damage, vandalism or a road traffic accident, and where the nature and duration of the unavailability has been notified to the Company, the HRS shall not be included in the calculation of Availability for such period as the Parties agree is reasonable or in the absence of an agreement, for such periods as the Company may reasonably determine, taking into account the extent of any damage to the HRS and provided that the Contractor promptly takes such steps as are in accordance with good industry practice to repair the HRS.
- 3.6 Where the HRS is unavailable as a result of a Force Majeure Event as defined in the Contract, the HRS shall not be included in the calculation of HRS Availability for the period during which the Force Majeure Event continues to apply.
- 3.7 Further Performance Indicators relating to HRS performance (Station Performance and Redundancy are tabulated in Annex A).
- 3.8 The HRS will be deemed to be Available at all times except to the extent that an Company explicitly agrees otherwise in writing (in which case the period of availability specified in writing shall be the period the HRS is considered to be unavailable for the purposes of this **Schedule 11**) e.g. for planned maintenance.

Further remedies

- 3.9 In the event that HRS Availability is below the required level then in addition to any other remedies available to the Company, the provisions of paragraph 6 of this Schedule will apply.

Performance Indicator 2 Incident Management

- 3.10 The Contractor may be susceptible to a number of incidents whilst delivering to or maintaining the HRS and these have been classified from 1 to 5 as below in Table One including the time frames for resolution which will be the service level for which this PI is measured (each occurrence is an "**Incident**"):

Table One: Incidents

	Incident 1	Incident 2	Incident 3	Incident 4	Incident 5
Incident Detail	HRS presents a potential public hazard or serious safety issue	Unable to release a vehicle from the HRS	Breach of data or financial security	Serious incident impacting on reputation of Contractor or Company	Major services outage.
Contractor to Notify Company	Yes – Within 30 minutes	Yes – Within 30 minutes	Yes – Within two hours	Yes – Within 30 minutes	Yes – Within two hours
Timeframe to Resolve	2 Hours	2 Hours	24 hours	3 Days	5 Days
Service Credit details	3 Service Credits for each failure to meet Timeframe to Resolve per period. For any multiple or combined incidents, the longer Timeframe to Resolve shall apply.				

Incident Examples	a) Risk of fire b) Sudden release of high pressure hydrogen c) Critical safety monitoring device or system offline		a) Cyber attack	a) Death or serious injury of a Bus Operator or Contractor Personnel whilst on duty b) Offensive fly posting or graffiti	a) Power outage b) Telecommunications failure c) Data-communications failure
Notification	Phone	E-mail	E-mail	Phone	E-mail

3.11 An Incident is deemed as having started as soon as the Contractor is notified of the Incident either by the Bus Operator, the Company or automatically via the Contractor's own HRS management system.

3.12 An Incident is deemed as having been resolved when:

3.12.1 in the case of an Incident relating to the HRS, a suitably qualified engineer has repaired, inspected and signed that the HRS has been made safe and/or is functioning correctly; or

3.12.2 in the case of any other Incident, the Contractor has provided satisfactory evidence to the Company that the Incident has been resolved.

3.13 Notifications to the Company pursuant to this PI2 shall be provided to the Company's Coordinator or such other person as is in each case specified for the purpose in the Agreement.

3.14 Notifications pursuant to this PI2 shall be in the format specified in the table at PI2.1 above.

Performance Indicator 3 Correspondence Response Time

3.15 This PI measures the timeliness of Contractor responses to Bus Operator and the Company correspondence received by the Contractor's customer service function.

3.16 The Contractor shall ensure that all correspondence from the Bus Operator and the Company via:

3.16.1 email;

3.16.2 website; and

3.16.3 letter,

are acknowledged within two (2) Business Days of the correspondence being received.

3.17 The Contractor shall respond to all correspondence from the Bus Operator and the Company within five (5) Business Days of the correspondence being received.

3.18 During the build stage and for up to six months of the HRS operation the Contractor shall provide a minimum of weekly written updates to the Company's Project Manager. These can be concise updates by email, but should include details of progress against project timescale, risks/issues for discussion, actions required by the Company or others that affect the project timescale, etc.

3.19 Teleconference/updates by telephone or email as required by the tenderer or by the Company Project Manager.

- 3.20 Periodic face-to-face meetings, either at Company's office (Palestra, 197 Blackfriars Road, London) or at the Contractors office or at the Bus Operator's Offices, by pre-arranged agreement during the build stage and initial stages of operation.
- 3.21 Contractor to respond to all Company queries on the project within two working days, providing an update where queries need further time to be answered. Ensure that alternative contact details are provided when key team members are unavailable.
- 3.22 Provide sufficient resources to achieve the project timescale. Where slippage occurs, to be raised and discussed with the Company Project Manager within three working days.
- 3.23 Company shall facilitate a collaborative relationship between the Contractor and the Bus Operator. The Contractor shall provide excellent communication and constructive relationship. If the Bus Operator or Company raises an issue with the relationship, the Contractor shall discuss and agree a resolution to the issue within five working days.
- 3.24 All communication and engagement with Bus Operator to be logged and shared with Company within three working days.
- 3.25 All processes must be transparent and all results must be publishable and these must be agreed in advance of any product testing with supplier/ delivery partner without exception.

Performance Indicator 4 Hydrogen Purity

- 3.26 Proton Exchange Membrane (PEM) grade hydrogen compliant with Society for Automotive Engineering international standard SAE J2719 must be achieved at the level of dispensing. Suitable means of quality assurance must be in place to ensure that quality is monitored and maintained throughout the station operation for likely contaminants. The Contractor is to identify & monitor likely failure mechanisms which may cause hydrogen contamination (such as oil) and provide a means of prevention via an automated system.
- 3.27 Routine hydrogen sampling should take place (minimum 12 monthly) and checked for compliance with SAE J2719 standard by an independent organisation, results & certification to be supplied to the Company.

4. ANNEX A: PERFORMANCE INDICATOR TABLE

PI ref	PI title	Start Point	End Point	Acceptable Service Level	Service Credit Details
1.1	HRS Availability	00:01 on 1st day of Reporting Period	23:59 on last day of Reporting Period	> 99.0%	<p>4 Service Credits - for more than 40 minutes delay per period in total.</p> <p>8 Service Credits - for more than 80 minutes delay per period in total.</p>
1.2	Station Performance	00:01 on 1st day of Reporting Period	23:59 on last day of Reporting Period	Target Fill Pressure (at 15 deg C) 350 bar	3 Service Credits - for more than 1 incidence per period below target.
				Target refuelling time for 17.8kg refill (including connection / leak test)* <5 minutes *target refuelling flow rate 100 grams H2 / second	3 Service Credits - for more than 1 incidence per period below target.
				Refuelling window (time to refuel minimum of 17 buses) 8 hours / 365 days	3 Service Credits - for more than 1 incidence per period below target.
				Number of dispensers able to dispense hydrogen (minimum) 2	3 Service Credits - for more than 1 incidence per period below target.
				Ability to fuel buses multiple buses simultaneously Required	4 Service Credits - for more than 1 incidence per period below target.

1.3	Redundancy	00:01 on 1st day of Reporting Period	23:59 on last day of Reporting Period	Target availability of station (During 8 hr refuelling window) 99.00%	2 Service Credits - for more than 1 incidence per period below target.
				Minimum high pressure storage 1 day's dispensable daily demand 380 Kg up to 350 bar (without any additional compression)	2 Service Credits - for more than 1 incidence per period below target.
				Target time between station down and trailer delivery arrival <12hrs	2 Service Credits - for more than 1 incidence per period below target.
2	Incident Management	00:01 on 1st day of Reporting Period	23:59 on last day of Reporting Period	97% of Incidents resolved within timeframes set out in PI 2.1	2 Service Credits - for more than 1 failure per period below target.
				For on-site production proposals, the total number of incidents of component or maintenance failure resulting in a back up trailer delivery supply shall not be greater than one occurrence every 6 months	1 Service Credits - for more than 1 failure per period below target.
				Telephone Helpline for issue reporting 24hrs / 7 days a week/ 52 weeks	1 Service Credits - for more than 1 failure per period below target.
				Remote fault diagnosis <2hrs Physical fault diagnosis if remote diagnosis does not resolve fault <4hrs	4 Service Credits - for more than 1 failure per period below target.

3	Correspondence Response Time	00:01 on 1st day of Reporting Period	23:59 on last day of Reporting Period	97% of correspondence acknowledged within two (2) Business Days	1 Service Credits - for more than 1 failure per period below target.
				97% of correspondence responded to within five (5) Business Days	1 Service Credits - for more than 1 failure per period below target.
4	Hydrogen Purity	Measured annually at 12 monthly compliance test		Compliant with SAE J2719	5 Service Credits – for any failure.

Service Credits will not apply for the first 3 months of the services following the Effective Date.

Service Credits will apply thereafter, agreed every 3 months and logged on a Non-Conformances and Improvement Plan and implemented as per the Company's Escalation Procedure below.

Service Credits	Escalation Process
0 – 15	None
16 – 30	Level 1
Greater than 30	Level 2
See 5.4 of Escalation Procedure: failure to remedy at Level 2 or recurrence within 3 months.	Level 3
See 5.4 of Escalation Procedure: failure to remedy at Level 3 or recurrence within 3 months.	Level 4

5. ESCALATION PROCEDURE

5.1 In the event of unsatisfactory performance standards, including (but not limited to) failure to reach the targets set by the Key Performance Indicators and any other deficiencies in performance, the escalation procedure shall be invoked by the Company at its absolute discretion.

- 5.2 The purpose of the escalation procedure is to provide a structured framework within which the parties can address unsatisfactory performance standards against timescales and deliverable targets. For the purposes of this procedure notified levels of poor performance will be termed "Non-Conformances".
- 5.3 This procedure operates with four levels; the lowest level Non-Conformance being Level 1. Should Non-Conformances escalate they receive an appropriate level of management intervention from the Company and the Contractor. Level 3 gives final review and opportunity for remedial actions to resolve issues before the Non-Conformance reaches Level 4, which will entitle a Company to terminate in accordance with Clause 220.1(a) of the Agreement.
- 5.4 In the event that an unsatisfactory performance issue is not resolved between the Company and the Contractor then the Non-Conformance may be raised formally to a Level 1 or Level 2 Non-Conformance, depending upon the severity of the performance failure. It is possible for a number of Level 1 and/or Level 2 Non-Conformances to be in hand at any one time.

Table 2: Summary of Escalation Procedure

TRIGGER	LEVEL	ACTION	BY	RESULT
Failure to rectify identified non-conformance issued as part of KPIs.	Level 1	Improvement plan with precise end date required. On-going review dates specified.	i) [Company] ii) [Contractor]	Satisfactory - Stop Unsatisfactory ▶ Level 2
Level 1 recurrence. Consistent failure to meet required requirement. Safety Condition infringements.	Level 2	Improvement plan with precise end date required. On-going review dates specified.	i) [Company] ii) [Contractor]	Satisfactory - Stop Unsatisfactory ▶ Level 3
Level 2 recurrence.	Level 3	Final review. Final opportunity for remedial action. Precise end date required. Suspension of all or part of the services provided under this Contract, or a discretionary financial penalty of 5% of period account may be applied until remedied.	i) [Company] ii) [Contractor]	Satisfactory - Stop Unsatisfactory ▶ Level 4
Level 3 recurrence.	Level 4	The right to terminate for material breach under clause 20.1(a) of the Agreement.	i) [Company]	Termination

6. FURTHER REMEDIES

- 6.1 This paragraph 6 shall take precedence over any conflicting term of the Contract.

6.2 Without prejudice to the Company's right (a) to terminate this Contract or (b) to seek specific performance of the Contract, if the Contractor fails to comply with the HRS Availability Service Level

6.2.1 the Contractor shall as soon as reasonably practicable notify the Company whether the failure was due to an issue relating to the Refuelling Facility (a "Facility Failure") or to an issue relating to the hydrogen supplied to the Refuelling Facility (a "Supply Failure") and the Contractor shall provide supporting information sufficient to allow the Company (acting reasonably) to assess the correctness of the Contractor's determination (and if the Company does not agree with the Contractor's assessment, **Clause 42** shall apply); and

6.2.2



6.3 All sums payable by the Contractor to the Company pursuant to paragraph 6.2 shall be paid as liquidated damages for delay and not as a penalty and the Parties acknowledge that such amounts are a genuine pre-estimate of the loss that may be suffered by the Company in the event of any such failure of the Contractor to comply with paragraph 6.2. Such sums shall be the sole and exclusive monetary remedy of the Company against the Contractor in respect of any failure whatsoever by the Contractor to comply with the HRS Availability Service Level.

6.4 If the Contractor fails to achieve the HRS Availability Service Level on three or more consecutive Periods (but excluding the first Period following the Effective Date), the Company will have the right to terminate the Contract on notice in writing to the Contractor to that effect in accordance with **Clause 25.3.5**.

6.5 The Parties acknowledge that they are each of comparable bargaining power and have each had the opportunity to seek legal advice in relation to this Contract.

SCHEDULE 12

TERMINATION FOR CONVENIENCE PAYMENT

Within four weeks of award of the contract award date, the Contractor will provide the Company a written forecast schedule of payment milestones, showing amounts due and dates to be invoiced. The forecast amounts due and dates shown shall as far as reasonably possible accurately reflect the activities and outgoings of the Contractor in carrying out its duties under the contract. The payment milestones shall be agreed by the Company, subject to any evidence it may require at its discretion to support any individual amounts stated exceeding £100,000. Any adjustments to the schedule of payment milestones, whether adjustments to time or cost, that are required after this time, shall be submitted by the Contractor and shall be subject to approval by the Company in writing. The payment milestones shall always be at a minimum rate of one milestone per period, and shall be for the term of the contract. The total termination for convenience payment will be the sum of all milestones that have been passed agreed by both parties as having been completed at the date on which the termination for convenience notice is issued, less any amounts already invoiced.

SCHEDULE 13

SECURITY POLICY

1. DEFINITIONS

"Cloud"	A type of internet-based computing service where organisation can have aspects of their IT infrastructure managed by external providers, normally as a Software as a Service (SaaS), Platform as a Service (PaaS) or Infrastructure as a Service (IaaS) basis
"Cyber Essentials Scheme"	is a UK government scheme encouraging organisations to adopt good practice in information security, focussing mainly on technical controls rather than governance, risk, and policy
"Cyber Security Policy Policies" /	The high level Cyber Security requirements for all IT and Operational technology and data owned by the Company or operated and supported by third parties for on behalf of the Company
"Cyber Security Standard(s)"	The technical detail behind the implementation of the high level cyber security requirements as set out in the Cyber Security Policies
"Data"	means data created, generated or collected, during the performance of the Services (or any part thereof), including Personal Data and data supplied to the Company and members of the TfL Group in connection with the Services or this Agreement
"Good Industry Practice"	means the exercise of that degree of skill, diligence, prudence and foresight which would reasonably and ordinarily be expected from a skilled and experienced operator engaged in the same type of undertaking under the same or similar circumstances
HMG Information Security Assurance Standards	the meaning and definition as well as relevant policy documents and standards can be found at https://www.gov.uk/government/collections/government-security or any updated link
"Information Asset Register"	means a register of all information assets relating to the services connected to this Agreement as detailed in paragraph 3.2(c)
"Information Security Management System" or "ISMS"	a framework of governance models, policies and procedures, based on a business risk approach to establish, implement, operate, monitor, review, maintain and improve information security in accordance with the requirements of paragraph 15
ISO/IEC 27001	is an information security standard specification for an information security management system (ISMS), with an emphasis on measuring and evaluating how well an organisation's ISMS is performing
"IT Services"	means the IT services that support the delivery of the Services
"Malicious Software"	means any software that brings harm to a computer system. Commonly known as malware can be in the form of worms, viruses, trojans, spyware, and adware which steal protected

	data, delete documents or add software not approved by a user.
“Operational Technology”	means any hardware or software which monitors and/or operates a physical process
“Outline Security Management Plan”	means the security plan provided by the Contractor as part of their tender submission.
“Removable Media”	any type of storage device that can be removed from a computer while the system is running. Examples of removable media include CDs, DVDs and Blu-Ray disks, as well as diskettes and USB drives
“Security Incident”	a potential or actual event or attempted breach of security affecting the confidentiality, integrity or availability of the Services, IT Services or Networks which process or hold Data
“Security Management Plan”	means the Contractor's security plan developed and revised pursuant to paragraph 14
“Security Policy”	means any the Company security policies as amended by the Company from time to time;
“Security Risk”	meaning all Risks associated with the security of the Services which may have a negative impact upon the agreed security posture, including information security and any risks identified pursuant to the Security Management Schedule.
“Security Risk Register”	means a register of Security Risks produced and maintained as detailed in paragraph 3.2(b)
“Service Assets”	means all assets and rights including all physical assets, Software, IPR, as well as spares and components whether in storage, repair or on sites, used by the Contractor to provide the Services in accordance with this Agreement;
“Contractor Personnel”	means all employees, agents, consultants and contractors of the Contractor or of any Sub-Contractor
“Contractor Premises”	means any land or building where the Contractor carries out any part of this contract
“Company Information Security Controls Framework”	means a hierarchy of IT security documents consisting of the high level Information Management Security Policy and ten security principles (Information Security Controls Framework) available upon request
“Company Network(s)”	means the network infrastructure and services owned or used by the Company to support the delivery of the IT Services.

"Company Personnel "	means all employees, agents, consultants and contractors of the Company
"Company Restricted"	as defined in the Company Information Security Classification Standard (listed in Annex 5)
"Company Sites"	means all the Company premises where the services are delivered

2. SCOPE AND PURPOSE

2.1 The purpose of this Schedule is to:

- (a) set out the principles of protective security to be applied by the Contractor in its delivery of the Services;
- (b) set out the Contractor's wider security obligations relating to the Services;
- (c) set out the Contractor's requirements to test and audit the Services including any Information Security Management System, to ensure compliance with the security requirements set out in this Agreement;
- (d) set out the Contractor's obligations in the event of a Security Incident;
- (e) set out the principles for the Contractor's development, implementation, operation, maintenance and continual improvement of the Security Management Plan;
- (f) set out the principles for the Contractor's development, implementation, operation, maintenance and continual improvement of the Information Security Management System;
- (g) set out any Contractor obligation for certification against the Services such as, ISO/IEC 27001, the Cyber Essentials Scheme or HMG Information Security Assurance Standards;
- (h) set out any Contractor requirements to deliver the Services or Service Assets in accordance with the CESG Commercial Product Assurance (CPA) Scheme; and
- (i) set out the requirements on the Contractor when delivering the Service(s), which are aligned with the 10 Steps to Cyber security set out by the Government (see Annex 5).
- (j) the Supplier's obligation to comply with the Operations Technology Cyber Security Standards (see Annex 5).

3. SECURITY PRINCIPLES

- 3.1 The Contractor acknowledges that security, data protection and confidentiality are of fundamental importance in relation to its provision of the Services and the Company's ability to retain public confidence. The Contractor shall at all times comply with the security principles set out in paragraph 3 in the delivery of the Services.
- 3.2 In recognition of the importance that the Company places on security, data protection and confidentiality, the Contractor shall ensure that a director or relevant individual, as agreed by the Company, is made aware of the risks set out in the Security Management Plan and is assigned overall responsibility for ensuring that:

- (a) appropriate members of Contractor Personnel and the Contractor's management team take responsibility for managing the different levels of security risk and promoting a risk management culture;
- (b) a Security Risk Register is produced and maintained and that all Security Risks are documented in an appropriate manner and is included in any contract risk register if one is in place. This Security Risk Register must be available for audit when reasonably required by the Company as set out in Paragraph 7 of this Schedule.
- (c) an Information Asset Register is produced and maintained and that all assets are documented in an appropriate manner in the Information Asset Register and shall identify the criticality of the relevant Service Assets in the delivery of the Services. This register must be available for audit when reasonably required by the Company as stated in paragraph 7 of this Schedule and when a Security Incident occurs.
- (d) supporting policies are implemented (where relevant) and communicated with Contractor Personnel.

3.3 The Contractor shall, and procure that its Sub-contractors shall, at all times ensure that:

- (a) security threats to the Services are minimised and mitigated;
- (b) the Services shall fully comply at all times with:
 - (i) any security requirements set out in Annex 3;
 - (ii) the agreed Outline Risk Management Processes and approach set out in Annex 2; and
 - (iii) Good Industry Practice.

3.4 The Contractor must notify the Company of any instances where software, applications, services or processes are hosted or run from the cloud that are not part of the Agreement, and that host, process or connect with any of the Company Operational or IT technology, Data and Networks or handle the Company Data. The Contractor is responsible for ensuring that any such cloud services comply with this Cyber Security Management Schedule.

4. ACCESS CONTROLS AND SECURE CONFIGURATION OF SYSTEMS

4.1 The Contractor shall comply with all obligations relating to the patching and configuration management of Service Assets as set out in Annex 4 in addition to any specific obligations set out in Annex 4, the Contractor shall ensure that:

- (a) security patches are applied to Service Assets as soon as possible in line with vendor recommendations in accordance with overall risk management;
- (b) account management and configuration control processes are implemented to ensure that access to Service Assets by Contractor Personnel is limited to the extent required for them to fulfil their roles in supporting the delivery of the Services.
- (c) when Contractor Personnel change roles or no longer support the delivery of the Services access rights are revoked or reviewed;
- (d) any system administration functionality is strictly controlled and restricted to those Contractor Personnel who need to have access to such functionality and that the ability of Contractor Personnel to change the configuration of the Services is appropriately limited and fully auditable;

- (e) Contractor Personnel are informed of what constitutes acceptable access of Operational or IT technology, Data and Networks and the consequences of non-compliance;
- (f) any preconfigured passwords delivered with any Service Assets are changed prior to their implementation for use in the Services;
- (g) the Services have appropriate devices, tools or applications in place to filter traffic or separate connections, such as industry standard firewalls and Malicious Software protection, to all public or private networks which are not controlled by or on behalf of the Company.
- (h) all wireless functionality is secure; and
- (i) software upgrades and patching must be managed appropriately and access to any software shall be granted using the principle of least privilege.

5. CONTRACTOR PERSONNEL

- 5.1 The Contractor shall, appoint a member of Contractor Personnel to be the security manager who shall be responsible for the development, monitoring, enforcement, maintenance and enhancement of all security measures set out in this Agreement (the "**Security Manager**"). The Security Manager shall be a member of the Key Personnel.
- 5.2 The Contractor shall ensure that all Contractor Personnel are security screened or vetted appropriate to the Data and shall provide the Company within five (5) working days of the Effective Date, and every twelve (12) months thereafter, written confirmation that this obligation has been complied with.
- 5.3 The Contractor shall immediately notify the Company if it becomes aware of any security clearance issues in relation to the Contractor Personnel and the Contractor shall undertake any action requested by the Company in relation to mitigating the impact of any such security clearance issues.

6. TRAINING

- 6.1 The Contractor shall ensure that all Contractor Personnel have undergone suitable security awareness training prior to their deployment and such security awareness training shall cover, as a minimum; account usage, malicious software, home and mobile working, use of removable media, audit and inspection and Security Incident reporting and data handling. The Contractor shall implement an up-to-date on-going programme of security awareness training for Contractor Personnel throughout the Term.
- 6.2 The Contractor shall provide additional training to its Contractor Personnel, which may be required following a Security Incident, the application of a patch or update, or any relevant Change or Variation.
- 6.3 The Contractor shall ensure that all Contractor Personnel are familiar with their responsibilities under applicable law and policies including, as a minimum, the Data Protection Legislation, the Security Policies set out in this Schedule and policies in relation to the handling of protectively marked materials both during their employment and following the termination of or change to the terms of their employment.

7. TESTING & AUDIT

- 7.1 The Contractor shall conduct regular automated vulnerability scans of the Services, as agreed in the Risk Management Process and ensure that any identified vulnerabilities are appropriately mitigated or patched in line with the Company Security Patching standard (Annex 5), taking into consideration the risk posed to the Company and the Services.
- 7.2 The Contractor shall conduct security tests, including ethical hacking and penetration tests, to assure compliance with the Security Incident Management Process, the security

provisions in this Agreement, the Security Management Plan. The Contractor shall conduct security testing in accordance with the Security Management Plan. The Contractor shall conduct such security tests, as a minimum, every twelve (12) months from the Effective Date and shall include security penetration testing of the Services and the associated technical infrastructure. Wherever the Services are accessible from the internet or other such public network, the Contractor shall carry out security penetration tests from the internet or the public network.

7.3 The Contractor shall, within one (1) week completion of the security tests carried out in accordance with paragraph 7.2, provide a report to the Company setting out:

- (a) the outcome of such security tests including all identified vulnerabilities;
- (b) the Contractor's plans to remedy each such identified vulnerability as soon as possible, provided that any such remediation must be implemented in accordance with this Agreement including the Change Control Procedure.

7.4 The Contractor shall implement its plans to each identified vulnerability in accordance with the report delivered pursuant to paragraph 7.3 save to the extent directed by the Company in writing.

7.5 The Contractor shall, upon request by the Company, following a Security Incident, carry out such additional security testing over and above the obligations set out in paragraph 7.2 as the Company requires.

7.6 the Company shall be entitled to send a member of the Company Personnel to witness the conduct of any audit or security tests carried out by or on behalf of the Contractor. The Contractor shall provide the Company with the results of such audits (in a form agreed with the Company in advance) as soon as practicable after the completion of each audit or test.

7.7 In addition to complying with the Requirements, PCI DSS where applicable and other relevant industry standards and Good Industry Practice, the Contractor shall at least once during each twelve (12) month period starting from the Service Commencement Date, engage an appropriately skilled third party to conduct a formal audit of the Services against the then current versions of the following:

- (a) the security controls, processes and procedures required pursuant to this Agreement;
- (b) the Data Protection Legislation (using BS10012 or another standard as agreed with the Company), where applicable; and
- (c) the Security Management Plan,

and shall, within five (5) Working Days of becoming aware of actual or potential security issues which impact or could impact the Services, the Contractor shall inform the Company of each such issue and shall keep the Company up-to-date as the Contractor investigates the nature and impact of such issue. Within five (5) Working Days of the finalisation of the audit findings, the Contractor shall provide to the Company a copy of all such findings which are relevant to the Services.

7.8 Without prejudice to any other right of audit or access granted to the Company pursuant to this Agreement or at Law, the Company and/or its representatives may carry out such audits in relation to security matters as are reasonably required to assess the Contractor's compliance with the Information Security Management System and the Security Management Plan.

7.9 If any test or audit carried out pursuant to this paragraph 7 reveals any non-compliance with this Agreement or vulnerability (and, in the case of a the Company audit, the Company has informed the Contractor thereof), the Contractor shall, as soon as reasonably practicable, provide the Company with a written plan to remedy each such

identified vulnerability as soon as possible, provided that any such remediation must be implemented in accordance with this Agreement including the Company Change Management Process and the Variation Procedure. The Contractor shall implement its plans to remedy each identified vulnerability in accordance with such report save to the extent directed by the Company in writing.

8. SECURITY INCIDENT MANAGEMENT PROCESS

- 8.1 The Contractor shall, and shall procure that its Sub-contractors shall:
- (a) establish, document and share with the Company a process to identify and respond to Security Incidents and mitigate the impact of such Security Incidents on the Services, including in relation to assigning clearly defined roles and responsibilities to specific Contractor Personnel;
 - (b) record each Security Incident and corresponding severity level in the Contractor's ISMS; and
 - (c) without limitation to the other provisions of this Agreement, follow the Company's reasonable instructions in relation to the identification and resolution of any Security Incident.
- 8.2 The Contractor shall notify and ensure the Company is aware as soon as possible and in any event no later than within one (1) hour upon becoming aware of any Security Incident or any potential Security Incident: Email: cybersec@tfl.gov.uk, Location: 14 Pier Walk, 3G5/6, Tel: 020 7027 9260.
- 8.3 In addition to the requirements in paragraph 8.2 the Contractor will additionally provide written notice with all relevant details reasonably available of any actual or suspected breach of security in relation to the Company Personal Data including unauthorised or unlawful access or Processing of, or accidental loss, destruction or damage of any Authority Personal Data.
- 8.4 If a Security Incident occurs, the Contractor shall, within the framework of the Security Incident Management Process:
- (a) immediately take steps to assess the scope of the Data, user accounts and/or the Company Data compromised or affected including, but not limited to, the amount of Data and/or the Company Personal Data affected;
 - (b) immediately take the steps necessary to remedy or protect the integrity of the Services against any such Security Incident;
 - (c) securely collect and preserve evidence, including logs, to support the Security Incident management process described in this paragraph and share with the Company such evidence via secure channels as requested by the Company;
 - (d) handle any information pertaining to the Security Incident according to the handling requirements for the Company RESTRICTED information defined in the Company's Information Security Classification Standard;
 - (e) promptly escalate the Security Incident to a person or governance forum with a level of seniority within the Contractor's organisation as the Company may reasonably require;
 - (f) as requested by the Company:
 - (i) provide such information in relation to the Security Incident (including, if necessary, by collating such information from its and its Sub-contractors' systems and the Contractor Personnel);

- (ii) provide relevant the Company Personnel with supervised access (or, if the Parties agree, direct access) to any relevant systems, Contractor Sites and Contractor Personnel in order to investigate the Security Incident; and
 - (iii) follow the Company's directions in relation to the steps necessary or desirable to remedy or protect the integrity of the Services; and
- (g) as soon as reasonably practicable develop and provide the Company with a copy of its remediation plan for the Security Incident which sets out full details of the steps taken and to be taken by the Contractor to:
- (i) correct, make good, reinstate, replace and remediate all deficiencies and vulnerabilities, loss and/or damage to the Service Assets, Data, and/or Services in connection with the Security Incident; and
 - (ii) perform or re-perform any security tests or alternative tests relating to the security of the Service Assets and/or Services as appropriate and within the timescales specified by the Company, to assure the Company that the Security Incident has been addressed and its effects mitigated,

provided that any such remediation must be implemented in accordance with this Agreement including the Company Change Management Process and the Variation Procedure. The Contractor shall fully implement and comply with such remediation plan save to the extent directed by the Company in writing.

8.5 The Contractor shall provide a detailed report to the Company within two (2) Working Days of the resolution of the Security Incident, such report to detail:

- (a) the nature of the Security Incident;
- (b) the causes and consequences of the Security Incident;
- (c) the actions undertaken and length of time taken by the Contractor to resolve the Security Incident; and
- (d) the actions undertaken by the Contractor to prevent recurrence of the Security Incident.

8.6 If there is a suspected security event up to and including a Security Incident, the Contractor shall to the extent requested by the Company CISO (or any duly authorised delegate):

- (a) provide information in relation to the Services which is relevant collating, if necessary, relevant information from Sub-contractors' systems and the Contractor Personnel;
- (b) provide relevant the Company Personnel with supervised access (or, if the Parties agree, direct access) to any relevant systems, Contractor Sites and Contractor Personnel in order to investigate the security incident; and
- (c) follow the Company's directions in relation to the steps necessary or desirable to remedy or protect the integrity of the Services; and
- (d) work with the Company to identify any lessons learnt which could mitigate any gaps in process, policy or controls.

and the Company shall reimburse the Contractor's reasonable, demonstrable costs and expenses in relation to the Contractor's compliance with such request.

9. **SECURITY LOGGING AND MONITORING**

- 9.1 The Contractor shall ensure that the Security Management Plan sets out its monitoring strategy to monitor its own performance of its obligations under this Schedule. The Contractor shall update its monitoring strategy as necessary throughout the term of this Agreement in response to:
- (a) changes to applicable laws, regulations and standards;
 - (b) changes to Good Industry Practice;
 - (c) any Changes or Variations and/or associated processes;
 - (d) any Security Incident; and
 - (e) any reasonable request by the Company.
- 9.2 The monitoring strategy should include, as a minimum, processes for monitoring and logging (as appropriate):
- (a) networks and host systems to detect attacks originating both on an internal private network or from public networks (e.g. internet);
 - (b) instances of misuse of the Services, Contractor systems used in the delivery of the Services and access to the Company RESTRICTED Data by the Company Personnel and Contractor Personnel, including attempts at such misuse;
 - (c) wireless access points to ensure that all wireless networks are secure and no unauthorised access points are available;
 - (d) Malicious Software on: (i) the Contractor systems used in the delivery of the Services and, (ii) the Services;
 - (e) access to and movement of the Company RESTRICTED Data, including internal access to such Data; and
 - (f) traffic for unusual or malicious incoming and outgoing activity that could be indicative of an attempt or actual attack.
- 9.3 The Contractor shall ensure that access to system logs and monitoring information is strictly restricted to those Contractor Personnel who need to access these items to ensure the delivery and integrity of the Services.
- 9.4 The Contractor shall ensure that any monitoring process complies with the monitoring strategy developed in accordance with paragraphs 9.1 and 9.2 and all of its legal and regulatory obligations pursuant to Applicable Law.
- 9.5 The Contractor shall maintain a log of:
- (a) all instances of Contractor Personnel accessing Personal Data;
 - (b) all Service Recipient, the Company Personnel and Contractor Personnel logon attempts, successful and failed, to the Services or any elements of the Contractor Solution requiring authentication;
 - (c) all actions taken by Service Recipients, the Company Personnel or Contractor Personnel with administrative privileges;
 - (d) all instances of accounts being created for Service Recipients, the Company Personnel or Contractor Personnel and their relevant privileges;

- (e) all records of formal staff induction or certification required by Contractor Personnel to operate systems and handle the Company RESTRICTED Data (where required);
 - (f) all instances of accounts for Service Recipients, the Company Personnel, or Contractor Personnel being deleted;
 - (g) Contractor Personnel system access group memberships in relation to relevant Service Assets;
 - (h) Service Recipient and group privilege changes against each of the system resources;
 - (i) unauthorised use of input and output devices and removable media; and
 - (j) all access to log files and audit systems.
- 9.6 The logs required in 9.5 above must be raw logs, which are provided in a structured text format and the schema for such logs will need to be provided.
- 9.7 The Contractor shall implement recording mechanisms to identify the Company Personnel and Contractor Personnel and their actions when cases of misuse are being investigated and shall ensure that any such recording mechanisms are protected against manipulation and disruption.
- 9.8 The Contractor shall regularly review logs to identify: (i) anomalies; (ii) suspicious activity; and (iii) suspected Security Incidents. The Contractor shall notify the Company of such findings in accordance with paragraph 8.2.
- 9.9 The Contractor shall provide copies of any log data collected by the Contractor during its delivery of the Services (system audit log data) at the Company's request in a human readable electronic format such as comma-separated value or Microsoft Excel.

10. MALICIOUS SOFTWARE

- 10.1 The Contractor shall throughout the Term, use the latest versions of anti-malware solutions and software available from an industry accepted vendor (unless otherwise agreed in writing between the Parties) to check for, contain the spread of, and minimise the impact of Malicious Software in the IT Services (or as otherwise agreed by the parties).
- 10.2 Notwithstanding Paragraph 10.1, if Malicious Software is detected within services provided by the Contractor, the Contractor shall ensure the effect of the Malicious Software is mitigated and, particularly if Malicious Software causes loss of operational efficiency or loss or corruption of Data, restore the Services to their desired operating efficiency.
- 10.3 Any cost arising out of the actions of the Parties taken in compliance with the provisions of Paragraph 10.2 shall be borne by the Parties as follows:
- (a) by the Contractor if the Malicious Software originates from the Contractor Software, the Third Party Software supplied by the Contractor (except where the Company has waived the obligation set out in Paragraph 10.1) or the Company Data (whilst the Company Data was under the control of the Contractor) unless the Contractor can demonstrate that such Malicious Software was present and not quarantined or otherwise identified by the Company when provided to the Contractor; and
 - (b) otherwise by the Company.

11. REMOVABLE MEDIA

- 11.1 The Contractor may only use Removable Media to support its delivery of the Services if it has obtained prior written consent of the Company and has implemented appropriate controls to ensure that the use of any input or output devices and removable media is restricted strictly to that needed to supply and support delivery of the Services.
- 11.2 If removable media is approved for use by the Company, the Contractor shall ensure that it deploys suitable anti-virus and anti-malware checking solutions to actively scan for the introduction of Malware onto systems and networks through all Data imports and exports from removable media and that the removable media is encrypted to a suitable standard agreed in advance with the Company in writing.
- 11.3 The Contractor shall report any loss or interception of Data as a result of the use of removable media to the Company in accordance with Paragraph 8 and the Company reserves the right in such instances to rescind its approval in relation to the Contractor's continued use of removable media.

12. MOBILE AND HOME WORKING

- 12.1 The Contractor may only use offer Mobile and Home working to support its delivery of the Services if it has obtained prior written consent of the Company and has implemented appropriate controls to ensure.
- 12.2 If such consent is granted but the Contractor does not have a home and mobile policy for Contractor Personnel, the Company's Home and Mobile Working Cyber Security Policy shall apply to the Contractor and its Contractor Personnel.
- 12.3 If the Contractor has a home and mobile working policy in relation to the Contractor Personnel, the Contractor shall:
- (a) ensure through this policy that:
 - (i) Data is protected and suitably encrypted in line with Cyber Security Policy (see Annex 5), when stored outside of the Contractor Premises;
 - (ii) Data is protected when accessed, imported or exported through a connection other than one which is accessed at the Contractor Premises; and
 - (iii) Security Incident management plans acknowledge the increased risk posed by home and mobile working such as theft or loss of Data and the Company Data and/or devices; and
- 12.4 The Contractor shall report any loss or interception of Data or the Company Data as a result of home or mobile working to the Company in accordance with Paragraph 8.

13. DISPOSALS

- 13.1 The Contractor shall not reuse any Service Asset or Removable Media used in the performance of the Services unless such items have been wiped securely in accordance with a the Company agreed standard.
- 13.2 The Contractor shall securely dispose of and delete Data from Service Assets used for the delivery of the Services to a the Company agreed standard upon the termination or expiry of this Agreement or when such Service Assets are no longer required for the delivery of the Services, whichever is sooner, and documented accordingly.
- 13.3 The Contractor shall ensure that the disposal of any Service Asset is accurately reflected in the Information Asset Register.

14. SECURITY MANAGEMENT PLAN

- 14.1 The Outline Security Management Plan as at the Effective Date is set out at Annex 1 (*Outline Security Management Plan*).
- 14.2 The Contractor shall within 28 days prior to date of completion of testing of the fuel dispensing system submit to the Company for approval, a Draft Security Management Plan which a minimum will:
- (a) set out the security measures to be implemented and maintained by the Contractor in relation to all aspects of the Services and all processes associated with the delivery of the Services and shall at all times comply with and specify security measures and procedures which are sufficient to ensure the Services comply with this Schedule;
 - (b) reference and comply with the security requirements set out in Annex 3;
 - (c) state any other cyber security industry standards over and above those set out in this Schedule which are applicable to the Services;
 - (d) state all applicable law which relates to the security of the Services; and
 - (e) how the Contractor will comply with any other security requirements the Company may reasonably request from time to time.

When the Security Management Plan is approved by the Company the Approved Security Management Plan will replace the Outline Security Management Plan in Annex 1.

- 14.3 The Contractor shall review and update the Security Management Plan at least annually and as required in response to:
- (a) changes to the Cyber Security Standards;
 - (b) emerging changes in Good Industry Practice;
 - (c) any relevant Operational Change or Variation and/or associated processes;
 - (d) any new perceived or changed security threats; and
 - (e) any reasonable request by the Company.
- 14.4 The Contractor shall submit any amendments to the Security Management Plan for Approval by the Company in accordance with the variation procedure set out in this Agreement

15. INFORMATION SECURITY MANAGEMENT SYSTEM

- 15.1 The Contractor shall develop, implement, operate, maintain the ISMS and shall within fifteen (15) Working Days of the Effective Date submit a draft ISMS to the Company to assure. The Contractor shall ensure that the ISMS includes the Security Incident Management Process, dealing with, among other matters, Security Incident management.
- 15.2 The ISMS shall, unless otherwise specified by the Company in writing, be designed to protect all aspects of:
- (a) the Services;
 - (b) all processes associated with the delivery of the Services; and
 - (c) the Company Sites, the Contractor Solution and any information and Data (including the Company Confidential Information and the Company Data) to the extent used by the Company or the Contractor in connection with this Agreement.

- 15.3 The Contractor shall make any document referenced in the ISMS available to the Company upon request.
- 15.4 If the investigation of a Security Incident reveals weaknesses or flaws in the ISMS, then any change to the ISMS to remedy the weakness or flaw shall be submitted to the Company for approval in accordance with the Variation procedure set out in this Agreement for the avoidance of doubt, if a change needs to be made to the ISMS to address an instance of non-compliance with the Security Management Plan or security requirements, the change to the ISMS shall be at no cost to the Company.
- 15.5 The ISMS will be fully reviewed in accordance with ISO/IEC 27001 by the Contractor at least annually, or from time to time as agreed with the Company, in response to:
- (a) changes to Good Industry Practice;
 - (b) any relevant Operational Changes or Variations or proposed Operational Changes or Variations to the Services and/or associated processes;
 - (c) any new perceived or changed security threats; and
 - (d) any reasonable request by the Company.
- 15.6 The Contractor shall provide the results of such reviews to the Company (together with such related information as the Company may reasonably request) as soon as reasonably practicable after their completion. The results of the review should include, without limitation:
- (a) suggested improvements to the effectiveness of the ISMS;
 - (b) updates to the risk assessments;
 - (c) proposed modifications to the procedures and controls that affect the ability to respond to events that may impact on the ISMS; and
 - (d) suggested improvements in measuring the effectiveness of controls.

16. COMPLIANCE WITH ISO/IEC 27001

- 16.1 The Contractor shall obtain certification from a UKAS registered organisation of the ISMS to ISO/IEC 27001 for any aspects of the business that is necessary to support the Services. The Contractor shall obtain such certification within twelve (12) months of the Effective Date and shall maintain such certification throughout the Term.
- 16.2 If certain parts of the ISMS do not conform to Good Industry Practice, or controls as described in ISO/IEC 27001 and the Standards the Contractor shall promptly notify the Company of this.
- 16.3 Without prejudice to any other audit rights set out in this Agreement the Company may carry out, or appoint an independent auditor to carry out, such regular security audits as may be required in accordance with Good Industry Practice in order to ensure that the ISMS maintains compliance with the principles and practices of ISO/IEC27001.
- 16.4 If on the basis of evidence provided by such audits, the Company, acting reasonably, considers that compliance with the principles and practices of ISO/IEC 27001 is not being achieved by the Contractor, then the Company shall notify the Contractor of the same and the Contractor shall, as soon as reasonably practicable, provide the Company with a written plan to remedy each such non-compliance as soon as possible, provided that any such remediation must be implemented in accordance with this Agreement.

17. APPROVED PRODUCTS

- 17.1 The Contractor shall ensure that all Service Assets providing security enforcing functionality are certified under the CESG Commercial Product Assurance (CPA) Scheme, to the appropriate grade, as defined with Annex 3 "Security Requirements", provided that relevant certified products are available in the market.
- 17.2 If a product is not assured under the CPA scheme, the Company reserves the right to require bespoke assurance of that product under a recognised scheme such as CESG Tailored Assurance Service (CTAS).

ANNEX 1 – OUTLINE SECURITY MANAGEMENT PLAN/SECURITY MANAGEMENT PLAN

NOTE: This may be discussed through Negotiation and/or Dialogue (where applicable). An Outline Security Management Plan shall be submitted by the Bidder prior to Contract Award (at ISFT where applicable), for approval by the Company and then set out in this Annex 1. This will be updated in accordance with paragraph 14.

Security Management Plan

Set out the security measures to be implemented and maintained by the Contractor in relation to all aspects of the Services and all processes associated with the delivery of the Services and shall at all times comply with and specify security measures and procedures which are sufficient to ensure the Services comply with this Schedule;

The Contractor's H2Station® is accessible from the remote via a built-in modem and features a data safety layer from "Secomea – Site Manager".

Reference and comply with the security requirements set out in Annex 3.

Contractor is compliant.

State any other cyber security industry standards over and above those set out in this Schedule which are applicable to the Services;

"Secomea – Site Manager" which is certificated in accordance with IEC 62443

State all applicable law which relates to the security of the Services; and

"Cybersecurity standards for procedures for implementing electronically secure Industrial Automation and Control Systems."

How the Contractor will comply with any other security requirements the Company may reasonably request from time to time.

The Contractor will look at potential request at a case by case basis. If request can be handled without additional cost these may potentially be implemented – if they come at a cost LBSL can choose to have them implemented by paying the agreed sum prior to start of the work.

ANNEX 2 – OUTLINE RISK MANAGEMENT PROCESS

[NOTE TO CONTRACT: If requested, the Contractor will submit a draft Outline Risk Management Plan. This will be discussed through Negotiation and/or Dialogue and an updated Outline Security Management Plan will be submitted, including as required]:

- How and when risk assessments are conducted
- Once found, what are the timeframes mitigations of risks once discovered
- Whether vulnerability scans or vulnerability management are to be provided
- The regularity of vulnerability scans and penetration testing
- The type of scans required (credentialed or non-credentialed)
- The output of this service- whether the automated report from the scanning tool or a fully analysed report
- Against what baseline the scans will be performed

ANNEX 3 – SECURITY REQUIREMENTS

Compliance with Annex 5 is required.

ANNEX 4 – CONFIGURATION MANAGEMENT OF SERVICE ASSETS

Compliance with Annex 5 is required.

ANNEX 5 – LIST OF RELEVANT POLICIES

TO BE PROVIDED BY THE COMPANY UPON REQUEST

- **Network Security Policy** defines the requirements for securing the Company networks as well as the information and network specific devices on them.
- **System Access Control Policy** defines the requirements for managing user and system account access to applications and technology such as allowing them to sign in to OneLondon or SAP.
- **Cyber Security Incident Management Policy** defines how we will handle cyber security incidents and the requirements for reporting and managing those incidents.
- **Malware Prevention Policy** defines the requirements for helping to prevent malware (malicious software eg computer viruses) from infecting our systems and networks.
- **Security Logging, Monitoring and Audit Policy** details the requirements for security logging and monitoring of access to our technology and data and the audit capabilities.
- **Removable Media Policy** details the requirements for using removable media such as USBs, CDs or portable hard drives.
- **Home and Mobile Working Cyber Security Policy** details the requirements for allowing and supporting secure home and mobile working.
- **Third Party Cyber Security Policy** defines the rules governing how the security of third party custodians of the Company information, technology and third party connections to the Company systems will be ensured.
- **the Company Information Security Classification Standard** details the information security classification scheme covering information and records, in all formats, and the minimum requirements for managing such information
- **10 Steps to Cyber Security** - <https://www.gov.uk/government/publications/cyber-risk-management-a-board-level-responsibility/10-steps-summary>
- **Cyber Essentials Scheme** <https://www.gov.uk/government/publications/cyber-essentials-scheme-overview>
- **Security Patching Standard** details the requirements for applying security-related updates ('security patches') in order to help secure TTL systems and applications in line with the secure builds and configurations policy.
- **Operations Technology Cyber Security Standard** describes the cyber security requirements for operational technology assets throughout their lifecycle

SCHEDULE 14

ADDITIONAL CLAUSES

1. TIMBER STANDARDS

1.1 For the purposes of this paragraph 1, unless the context indicates otherwise, the following expressions shall have the following meanings:

“Independent Report” an independent report by an individual or body:

(a) whose organisation, systems and procedures conform to:

(i) ISO Guide 65:1996 (EN 45011:1998); and

(ii) general requirements for bodies operating product certification systems; and

(b) who is accredited to audit against forest management standards by a national or international body whose organisation, systems and procedures conform to ISO Guide 61 General Requirements for Assessment and Accreditation of Certification Bodies;

“Legal Timber” Timber in respect of which the organisation that felled the trees and/or provided the Timber from which the wood supplied under the Contract derived:

(a) had legal rights to use the forest;

(b) holds a register of all local and national laws and codes of practice relevant to forest operations; and

(c) complied with all relevant local and national laws and codes of practice including environmental, labour and health and safety laws and paid all relevant royalties and taxes;

“Recycled Timber” and “Reclaimed Timber”

recovered wood that has been reclaimed or re-used and that has been in previous use and is no longer used for the purpose for which the trees from which it

derives were originally felled. The terms 'recycled' and 'reclaimed' are interchangeable and include, but are not limited to the following categories: pre-consumer recycled wood and wood fibre or industrial by-products but excluding sawmill co-products (sawmill co-products are deemed to fall within the category of Virgin Timber), post-consumer recycled wood and wood fibre and drift wood. Recycled or Reclaimed Timber must be capable of being evidenced as such to the Company's satisfaction in order to satisfy this definition;

"Sustainable Timber"

Timber, which in order to meet the Company's criteria for sustainable timber, must be:

- (a) Recycled Timber; or
- (b) Sustainably Sourced Timber; or
- (c) a combination of (a) and (b);

"Sustainably Sourced Timber"

Timber sourced from organisational, production and process methods that minimise harm to ecosystems, sustain forest productivity, ensure that both forest ecosystem health and vitality, and forest biodiversity is maintained. In order to satisfy this definition, Timber must be accredited to meet the Forest Stewardship Council (FSC) or equivalent. Where it is not practicable to use Forest Stewardship Council (FSC) standard accredited timber, the Company will accept timber accredited through other schemes approved by the Central Point of Expertise on Timber (CPET), as listed below:

- (a) Canadian Standards Association (CSA);
- (b) Programme for the Endorsement of Forest Certification (PEFC); or
- (c) Sustainable Forestry Initiative (SFI),

or such other source as the Contractor may demonstrate to the Company's satisfaction is equivalent;

“Timber” wood from trees that have been felled for that purpose, but excludes any item where the manufacturing processes applied to it has obscured the wood element (by way of example only, paper would not be treated as timber). Where the term Timber is used as a generic term it includes both Virgin Timber and Recycled Timber; and

“Virgin Timber” Timber supplied or used in performance of the Contract that is not Recycled Timber.

1.2 Contractor’s Obligations and the Company’s Rights

- 1.2.1 The Contractor shall ensure that all Timber supplied or used in the performance of the Contract shall be Sustainable Timber. If it is not practicable for the Contractor to meet this condition the Contractor must inform the Company in writing prior to the supply of any Timber that is not Sustainable Timber, and stating the reason for the inability to comply with this condition. The Company reserves the right, in its absolute discretion, to approve the use of Timber that is not Sustainable Timber. Where the Company exercises its right to reject any Timber, the provisions of paragraph 1.2.4 shall apply.
- 1.2.2 Without prejudice to paragraphs 1.2.1 and 1.4.2, all Virgin Timber procured by the Contractor for supply or use in performance of the Contract shall be Legal Timber.
- 1.2.3 The Contractor shall ensure that Virgin Timber it procures for supply or use in performance of the Contract shall not have derived from any species of tree that is protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) unless the supplier can prove, by producing official documentation, that he has complied with the CITES requirements that permit trading in the particular species of tree so listed under that Convention.
- 1.2.4 The Company reserves the right to reject at any time any Timber that does not comply with the conditions of this Contract or the Specification. Where the Company exercises its right to reject any Timber, the Contractor shall supply contractually compliant alternative Timber, at no additional cost to the Company and without causing delay to the performance of the Contract.
- 1.2.5 The Contractor shall maintain records of all Timber supplied and used in the performance of the Contract. Such information shall be made available to the Company promptly if requested at any time.

1.3 Company’s Reporting Requirements

- 1.3.1 Unless the Company has given its written approval in accordance with paragraph 1.2.1 that Timber that is not Sustainable Timber may be used, then, if requested, the Contractor shall promptly provide evidence to the Company’s satisfaction that the Timber is Sustainable Timber.
- 1.3.2 Upon a request by the Company referred to in paragraph 1.3.1, in the event that the Contractor does not promptly provide such evidence, or the evidence provided does not satisfy the Company’s requirements, then (and without prejudice to paragraph 1.4.1), the Company reserves the right to retain 25% of any monies payable to the Contractor under the Contract until such date as

the Company is in receipt of such evidence and the Company is satisfied that the evidence establishes that the Timber is Sustainable Timber.

1.3.3 The Contractor shall report quarterly on its use of Sustainable Timber in the performance of the Contract, in accordance with the Timber Standards Appendix of this schedule.

1.3.4 The Contractor shall report on the amount of Timber that has been supplied to the Company in accordance with paragraph 1.2.1 which is not Sustainable Timber.

1.4 **Verification**

1.4.1 **Evidence of Sustainable Timber**

The Company reserves the right to determine whether the evidence supplied by the Contractor is sufficient to satisfy it that the Specification and the conditions of contract have been fully complied with. In the event that the Company is not so satisfied, the Contractor shall, on written request by the Company, commission and meet the costs of an Independent Report to:

- (a) verify the source of the Timber; and
- (b) assess whether the forests of origin were managed in accordance with the specified local laws and regulations.

1.4.2 **Evidence of Legal Timber**

1.4.2.1 The Contractor shall, before delivering any Virgin Timber under this Contract, obtain documentary evidence to the Company's satisfaction that the Timber is both Legal and Sustainable Timber. If requested in writing by the Company, the Contractor shall submit such documentary evidence to the Company either prior to delivery or at such other times as the Company may require. For the avoidance of doubt, the Contractor shall identify, as part of the evidence submitted, a chain of custody from the source of the Timber through to delivery of the final product.

1.4.2.2 The Company reserves the right at any time during the execution of the Contract and for a period of 6 years from final delivery of any Timber under the Contract to require the Contractor to produce the evidence required for the Company's inspection within 14 days of the Company's written request.

2. **LONDON LIVING WAGE**

For the purposes of this paragraph 2, unless the context indicates otherwise, the expression "London Living Wage" means a basic hourly wage as updated from time to time by the GLA Economics Unit or any relevant replacement organisation and as notified to the Contractor.

2.1 The Contractor acknowledges and agrees that the Mayor of London pursuant to section 155 of the GLA Act has directed that members of the Company Group ensure that the London Living Wage is paid to anyone engaged by any member of the Company Group who is required to discharge contractual obligations in Greater London or on the Company's estate.

2.2 Without prejudice to any other provision of this Contract, the Contractor shall:

2.2.1 ensure that none of its employees engaged in the provision of the Services (in Greater London or on the Company's estate but not otherwise) is paid an

hourly wage (or equivalent of an hourly wage) less than the London Living Wage;

- 2.2.2 ensure that none of its employees engaged in the provision of the Services is paid less than the amount to which they are entitled in their respective contracts of employment;
 - 2.2.3 provide to the Company such information concerning the London Living Wage and as the Company or its nominees may reasonably require from time to time;
 - 2.2.4 disseminate on behalf of the Company to its employees engaged in the provision of the Services such perception questionnaires as the Company may reasonably require from time to time and promptly collate and return to the Company responses to such questionnaires; and
 - 2.2.5 co-operate and provide all reasonable assistance in monitoring the effect of the London Living Wage.
- 2.3 For the avoidance of doubt the Contractor shall implement any updated London Living Wage on or before 1 April in the year following notification of such updated London Living Wage.
- 2.4 The Company reserves the right to audit (acting by itself or its nominee(s)) the provision of the London Living Wage to the Contractor's staff and the staff of its sub-contractors.
- 2.5 Any breach by the Contractor of the provisions of this paragraph 2 shall be treated as a material breach capable of remedy.

3. **SUPPLIER DIVERSITY**

3.1 **Compliance**

3.1.1 Without limiting the generality of any other provision of this Contract, the Contractor:

- shall not unlawfully discriminate,
- shall procure that its personnel do not unlawfully discriminate, and
- shall use reasonable endeavours to procure that its direct and indirect subcontractors do not unlawfully discriminate in relation to the services,

within the meaning and scope of the Equality Act 2010 and any other relevant enactments in force from time to time relating to discrimination in employment.

3.1.2 The Contractor acknowledges that the Company as a public authority is subject to a statutory duty under section 149 of the Equality Act 2010 to have due regard to the need to eliminate unlawful discrimination on the grounds of sex, marital or civil partnership status, race, sexual orientation, religion or belief, age, pregnancy or maternity, gender reassignment or disability (a "Relevant Protected Characteristic") (as the case may be) and to promote equality of opportunity between persons who share a Relevant Protected Characteristic and persons who do not share it. In providing the Services, the Contractor shall assist and cooperate with Company where possible in satisfying this duty.

3.1.3 Where possible, the Contractor shall provide the services in such a manner as to:

- (a) promote equality of opportunity for all persons irrespective of their race, sex, disability, age, sexual orientation or religion;

- (b) eliminate unlawful discrimination; and
- (c) promote good relations between persons of different racial groups, religious beliefs and sexual orientation.

3.1.4 The Company's Harassment, Bullying and Discrimination Policy ("Policy") as up-dated from time to time (copies of which are available on request from the Company) requires the Company's own staff and those of its direct and indirect subcontractors to comply fully with the Policy to eradicate harassment in the workplace. The Contractor shall:

(a) ensure that its staff, and those of its direct and indirect subcontractors who are engaged in the performance of the Contract are fully conversant with the requirements of the Policy;

(b) fully investigate allegations of workplace harassment in accordance with the Policy; and

ensure that appropriate, effective action is taken where harassment is found to have occurred.

3.2 **Strategic Equality & Diversity Plan**

3.2.1 For the duration of this Contract, the Contractor shall comply with the Agreed Strategic Equality & Diversity Plan and shall procure that each of its direct subcontractors:

(a) adopts and implements; and

(b) in respect of other tiers of subcontractors beneath the Contractor's direct subcontractors uses reasonable endeavours to procure that those indirect subcontractors adopt and implement,

a strategic equality and diversity plan in respect of their respective employees engaged in the performance of the Contract which is at least as extensive in scope as that agreed with the Company and set out in the Agreed Strategic Equality & Diversity Plan.

For the purposes of this Agreement the expression "Agreed Strategic Equality & Diversity Plan" means the strategic equality & diversity plan as negotiated and agreed and attached to the Contract as a Schedule headed "Agreed Strategic Equality & Diversity Plan".

3.2.2 Where a subcontractor has, pursuant to paragraph 4.2 or otherwise, adopted a Strategic Equality & Diversity Plan, the Contractor shall procure that each of its direct subcontractors:

(a) provides; and

(b) in respect of other tiers of subcontractors beneath the Contractor's direct subcontractors, use reasonable endeavours to procure that those indirect subcontractors provide,

a copy of its Strategic Equality & Diversity Plan (and any amendments thereto) to the Company or its nominee as soon as reasonably practicable.

3.3 **Diversity Training**

3.3.1 For the duration of this Contract, the Contractor shall comply with the Agreed Training Plan in relation to all of its employees engaged in the performance of the Contract. For the purposes of this Contract the expression "Agreed Training Plan" means the diversity training plan set out as agreed and attached to the Contract as a Schedule headed "Agreed Training Plan". The Contractor shall procure that each of its direct subcontractors:

- (a) adopts and implements; and
- (b) in respect of other tiers of subcontractors beneath the Contractor's direct subcontractors uses reasonable endeavours to procure that those indirect subcontractors adopt and implement,

a diversity training plan in respect of their respective employees engaged in the performance of the Contract which is at least as extensive in scope as the Agreed Training Plan.

3.3.2 Where a subcontractor has, pursuant to paragraph 3.1 or otherwise, adopted a diversity training plan, the Contractor shall procure that each of its direct subcontractors:

- (a) provides; and
- (b) in respect of other tiers of subcontractors beneath the Contractor's direct subcontractors, use reasonable endeavours to procure that those indirect subcontractors provide,

a copy of its diversity training plan (and any amendments thereto) to the Company or its nominee as soon as reasonably practicable.

3.4 **Supplier Diversity**

3.4.1 For the duration of this Contract the Contractor shall at all times comply with the Agreed Supplier Diversity Plan. For the purposes of this Contract the expression "Agreed Supplier Diversity Plan" means the supplier diversity plan set out as agreed and attached to the Contract as a Schedule headed "Agreed Supplier Diversity Plan". The Contractor shall procure that each of its direct subcontractors:

- (a) adopts and implements; and
- (b) in respect of other tiers of subcontractors beneath the Contractor's direct subcontractors uses reasonable endeavours to procure that those indirect subcontractors adopt and implement,

a supplier diversity plan in relation to the performance of this Contract which is as least as extensive as the Agreed Supplier Diversity Plan.

3.4.2 Where a subcontractor has, pursuant to paragraph 3.4.1 or otherwise, adopted a supplier diversity plan, the Contractor shall procure that each of its direct subcontractors:

- (a) provides; and
- (b) in respect of other tiers of subcontractors beneath the Contractor's direct subcontractors, use reasonable endeavours to procure that those indirect subcontractors provide;

a copy of its supplier diversity plan (and any amendments thereto) to the Company or its nominee as soon as reasonably practicable.

3.5 **Communications Plan**

3.5.1 For the duration of this Contract and in all dealings with the Local Community, the Contractor shall comply with the Agreed Communications Plan. For the purposes of this Contract the expression "Agreed Communications Plan" means the communications plan agreed and attached to the Contract as a Schedule headed "Agreed Communication Plan" and the expression "Local Community" means those areas of London affected by the Works from time to time.

3.6 **Monitoring and Reporting**

3.6.1 Subject to paragraph 3.6.2, the Contractor shall use reasonable endeavours to provide the Company on the date of this Contract and subsequently every 12 months from the date or such other frequency as the Company may reasonably request of this Contract with the following information:

An annual report on performance and compliance with the equality and diversity provisions as set out in paragraphs 3.2 to 3.5. The annual report should set out:

- (a) the performance of the Contractor over the past 12 months in relation to the Agreed Strategic Equality and Diversity Plan, the Agreed Training Plan, the Agreed Supplier Diversity Plan and the Agreed Communications Plan and/or the action plan submitted for the previous 12 months in accordance with paragraph 3.6.1(d);
- (b) the proportion of its employees engaged in the performance of the Contract and, to the extent reasonably possible, the employees of its direct or indirect subcontractors engaged pursuant to the terms of the relevant subcontracts in the performance of the Contract who are:
 - i. female;
 - ii. of non-white British origin or who classify themselves as being non-white British;
 - iii. from the Local Community;
 - iv. disabled;
- (c) the proportion of its direct or indirect subcontractors that are SMEs and/or BAMEs and/or other suppliers from other under-represented or protected groups; and
- (d) a plan of action for the forthcoming 12 months showing what the Contractor plans to do to continue delivery of the equality & supplier diversity objectives.

For the purposes of this paragraph, the meaning of "SME" and "BAME" is as set out in the attached document called TfL Supplier Diversity Definitions.

3.6.2 The Contractor shall ensure at all times that it complies with the requirements of the Data Protection Act 1998 (as may be amended) in the collection and reporting of the information to the Company pursuant to paragraph 3.6.1.

3.7 **Equality and Diversity Infractions**

3.7.1 If the Contractor or any of its direct subcontractors commits a Equality & Diversity Infraction, the Company shall be entitled (but not obliged) to act as follows:

3.7.1.1 if a Equality & Diversity Infraction is committed by the Contractor then the Company may serve written notice upon the Contractor identifying in reasonable detail the nature of the Equality & Diversity Infraction, and the Contractor shall cease committing and remedy, at its own cost, the Equality & Diversity Infraction, within 30 days of receipt of such notice (or such longer period as may be specified in the notice); or

3.7.1.2 if the Equality & Diversity Infraction is committed by a direct subcontractor of the Contractor, the Company may serve written notice upon the Contractor identifying in reasonable detail the nature of the Equality & Diversity Infraction, and the Contractor shall procure that the direct subcontractor ceases committing and remedies, at its own cost, the Equality & Diversity Infraction within 30 days of receipt by the Contractor of such notice (or such longer period as may be specified in the notice). If the Contractor fails to procure the remedy of the Equality & Diversity Infraction, the Company may serve a further written notice upon the Contractor and within 30 days of receipt of such further notice (or such longer period as may be specified in the notice), the Contractor shall terminate, at its own cost, the relevant contract with its direct subcontractor and procure performance of the affected works or services by another person which also complies with the obligations specified in paragraphs 3.2 to 3.5 of this Contract.

3.7.2 It shall be a fundamental term and condition of the Contract that the Contractor complies with its obligations under paragraphs 3.7.1(a) to 3.7.1(b). Where, following receipt of a notice given pursuant to paragraph 3.7.1(a) or 3.7.1(b) the Contractor fails to remedy an Equality & Diversity Infraction to the satisfaction of the Company or in the case of paragraph 3.7.1(b) fails to terminate the contract with a defaulting subcontractor and procure performance by another person on the terms specified in paragraph 3.7.1(b) the Contractor will be in breach of the Contract and the Company shall be entitled (but not obliged) to terminate the Contract, without further notice to the Contractor, in accordance with the termination paragraph in this Contract.

3.7.3 For the purposes of this paragraph 3.7 "Equality & Diversity Infraction" means any breach by the Contractor of its obligations specified in paragraphs 3.2 to 3.5 of this Contract and/or any failure by a direct subcontractor to adopt and implement a strategic equality and diversity plan, a diversity training plan and/or a supplier diversity plan as described in paragraphs 3.2 to 3.5 of this Schedule.

3.8 Equality and Diversity Audit

3.8.1 The Company or its nominee may from time to time undertake any audit or check of any and all information regarding the Contractor's compliance with paragraphs 3.2 to 3.5.

3.8.2 The Company's rights pursuant to this paragraph shall include any and all documents and records of the Contractor and its direct contractors and, where applicable, subject to the provisions of paragraphs indirect subcontractors and shall include the Minimum Records.

3.8.3 The Contractor shall, maintain and retain the Minimum Records for a minimum of six years from the termination or expiry of the Contract with respect to all matters in respect of the performance of and compliance with paragraphs 3.2 to 3.5 The Contractor shall procure that each of its direct and, where applicable subject to the provisions of paragraphs 3.2 to 3.4, indirect subcontractors shall, maintain and retain the Minimum Records for a minimum of six years from the termination or expiry of the Contract with respect to all matters in respect of the performance of and compliance with paragraphs 3.2

to 3.4. The Contractor shall procure that each subcontract between it and its direct subcontractors and, where applicable, subject to the provisions of paragraphs 3.2 to 3.4 each subcontract between its direct subcontractor and any indirect subcontractor of the Contractor shall contain rights of audit in favour of and enforceable by the Company substantially equivalent to those granted by the Contractor pursuant to paragraph 3.8.

3.8.4 The Company shall use reasonable endeavours to co-ordinate its audits and to manage the number, scope, timing and method of undertaking audits so as to ensure that the Contractor and each direct subcontractor is not, without due cause, disrupted or delayed in the performance of its obligations under the Contract and/or relevant subcontract (as the case may be).

3.8.5 The Contractor shall promptly provide, and procure that its direct subcontractors and, where applicable subject to the provisions of paragraphs 3.2 to 3.4 indirect subcontractors promptly provide all reasonable co-operation in relation to any audit or check including, to the extent reasonably possible in each particular circumstance:

(a) granting or procuring the grant of access to any premises used in the Contractor's performance of the Contract or in the relevant subcontractor's performance of its subcontract, whether the Contractor's own premises or otherwise;

(b) granting or procuring the grant of access to any equipment (including all computer hardware and software and databases) used (whether exclusively or non-exclusively) in the performance of the Contractor's or the relevant subcontractor's obligations specified in paragraphs 4.2 to 3.4 wherever situated and whether the Contractor's own equipment or otherwise; and

(c) complying with the Company's reasonable requests for access to senior personnel engaged in the Contractor's performance of the Contract or the relevant subcontractor's performance of its subcontract.

3.8.6 For the purposes of this paragraph 3.8 the expression Minimum Records means all information relating to the Contractor's performance of and compliance with paragraphs 3.2 to 3.5 and the adoption and implementation of a strategic equality and diversity plan, an equality & diversity training plan and a supplier diversity plan by each direct and, where applicable, subject to the provisions of paragraphs 3.2 to 3.4 indirect subcontractor of the Contractor.

4. **WORK RELATED ROAD RISK**

4.1 For the purposes of paragraphs **4.2** to **4.9** (inclusive) of this Contract, the following expressions shall have the following meanings:

"Bronze Accreditation" the minimum level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk

"Car-derived Vans" a vehicle based on a car, but with an interior that has been altered for the purpose of carrying larger amounts of goods and/or equipment

"Collision Report" a report detailing all collisions during the previous twelve (12) months involving injuries to persons or fatalities

“Delivery and Servicing Vehicle”	a Lorry, a Van or a Car-derived Van
“Driver”	any employee of the Contractor (including an agency driver), who operates Delivery and Servicing Vehicles on behalf of the Contractor while providing the Services
“DVLA”	Driver and Vehicle Licensing Agency
“FORS”	the Fleet Operator Recognition Scheme, which is an accreditation scheme for businesses operating van and lorry fleets. It offers impartial, independent advice and guidance to motivate companies to improve their compliance with relevant laws and their environmental, social and economic performance
“FORS Standard”	the standard setting out the accreditation requirements for the Fleet Operator Recognition Scheme, a copy of which can be found at: www.fors-online.org.uk
“Gold Accreditation”	the highest level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
“Lorry”	a vehicle with an MAM exceeding 3,500 kilograms
“MAM”	the maximum authorised mass of a vehicle or trailer including the maximum load that can be carried safely while used on the road
“Side Guards”	guards that are fitted between the front and rear axles of a Lorry and that comply with EC Directive 89/297/EEC and the Road Vehicles (Construction and Use) Regulations 1986
“Silver Accreditation”	the intermediate level of accreditation within the FORS Standard, the requirements of which are more particularly described at: www.fors-online.org.uk
“Van”	a vehicle with a MAM not exceeding 3,500 kilograms.

4.2 Fleet Operator Recognition Scheme Accreditation

Where the Contractor operates Delivery and Servicing Vehicles to provide the Services, it shall within sixty five (65) Working Days of the Mobilisation Period Commencement Date:

- 4.2.1 (unless already registered) register for FORS or a scheme, which in the reasonable opinion of the Authority, is an acceptable substitute to FORS (the **“Alternative Scheme”**); and
- 4.2.2 (unless already accredited) have attained the standard of Bronze Accreditation (or higher) or the equivalent within the Alternative Scheme and shall maintain the standard of Bronze Accreditation (or equivalent standard within the Alternative Scheme) by way of an annual independent assessment in accordance with the FORS Standard or take such steps as may be required to maintain the equivalent standard within the Alternative Scheme.

Alternatively, where the Contractor has attained Silver or Gold Accreditation, the maintenance requirements shall be undertaken in accordance with the periods set out in the FORS Standard.

4.3 **Safety Equipment on Vehicles**

The Contractor shall ensure that every Lorry, which it uses to provide the Services, shall:

- 4.3.1 have Side Guards, unless the Contractor can demonstrate to the reasonable satisfaction of the Authority that the Lorry will not perform the function for which it was built if Side Guards are fitted;
- 4.3.2 have front, side and rear blind spots completely eliminated or minimised as far as practical and possible, through the use of fully operational direct and indirect vision aids and driver audible alerts;
- 4.3.3 have equipment fitted with an audible means of warning other road users of the Lorry's left manoeuvre; and
- 4.3.4 have prominent signage on the Lorry to warn cyclists and other road users of the dangers of passing the Lorry on the inside and of getting too close to the Lorry.

4.4 **Driver Licence Checks**

Where the Contractor operates Delivery and Servicing Vehicles to provide the Services the Contractor shall ensure that:

- 4.4.1 it has a system in place to ensure all its Drivers hold a valid driving licence for the category of vehicle that they are tasked to drive, along with recording any endorsements, or restrictions on the Drivers licence; and
- 4.4.2 each of its Drivers engaged in the provision of the Services has a driving licence check with the DVLA or such equivalent before that Driver commences delivery of the Services and that the driving licence check with the DVLA or equivalent authority is repeated in accordance with either the following risk scale (in the case of the DVLA issued licences only), or the Contractor's risk scale, provided that the Contractor's risk scale has been Approved in writing by the Authority within the last twelve (12) months:
 - (a) 0 - 3 points on the driving licence - annual checks;
 - (b) 4 - 8 points on the driving licence - six (6) monthly checks;
 - (c) 9 - 11 points on the driving licence - quarterly checks; or
 - (d) 12 or more points on the driving licence - monthly checks.

4.5 **Driver Training**

Where the Contractor operates Delivery and Servicing Vehicles to provide the Services the Contractor shall ensure that each of its Drivers undergo approved progressive training (to include a mix of theoretical, e-learning, practical and on the job training) and continued professional development to include training covering the safety of vulnerable road users and on-cycle hazard awareness, throughout the term of this Contract.

4.6 **Collision Reporting**

Where the Contractor operates Delivery and Servicing Vehicles to provide the Services, the Contractor shall:

- 4.6.1 ensure that it has a system in place to capture, investigate and analyse road traffic collisions that results in fatalities, injury or damage to vehicles, persons or property and for generating Collision Reports; and
- 4.6.2 within ten (10) Working Days of the Mobilisation Period Commencement Date, provide to the Authority a Collision Report. The Contractor shall provide to the Authority an updated Collision Report within five (5) Working Days of a written request from the Authority.

4.7 **Self-Certification of Compliance**

Where the Contractor operates Delivery and Servicing Vehicles to provide the Services, within sixty five (65) Working Days of the Mobilisation Period Commencement Date, the Contractor shall make a written report to the Authority detailing its compliance with paragraphs **4.3**, **4.4** and **4.5** of this Contract (the "**WRRR Self-certification Report**"). The Contractor shall provide updates of the WRRR Self-certification Report to the Authority on each three (3) month anniversary of its submission of the initial WRRR Self-certification Report.

4.8 **Obligations of the Contractor Regarding Sub-Contractors**

The Contractor shall ensure that those of its Sub-Contractors who operate Delivery and Servicing Vehicles to provide the Services shall:

- 4.8.1 comply with paragraph **4.2**; and
- 4.8.2 where its Sub-Contractors operate the following vehicles to provide the Services shall comply with the corresponding provisions of this Contract:
 - (a) For Lorries – paragraphs **4.3**, **4.4**, **4.5** and **4.6**; and
 - (b) For Vans – paragraphs **4.4**, **4.5** and **4.6**,
 - (c) as if those Sub-Contractors were a party to this Contract.

4.9 **Failure to Comply with Work Related Road Risk Obligations**

Without limiting the effect of any other paragraph of this Contract relating to termination, if the Contractor fails to comply with any of paragraphs **4.2**, **4.3**, **4.4**, **4.5** and **4.6**, **4.7** and/or **4.8**:

- 4.9.1 the Contractor has committed a material breach of this Contract; and

the Authority may refuse the Contractor, its employees, agents and Delivery and Servicing Vehicles entry onto any property that is owned, occupied or managed by the Authority for any purpose (including but not limited to deliveries).

5. **Transfer of Employees on Expiry or Termination**

- 5.1 For the purposes of this paragraph, unless the context indicates otherwise, the following expressions shall have the following meanings:

- 5.1.1 "**Employment Costs**" means all salaries, wages, commissions, bonuses, holiday pay (including payment for accrued but untaken holiday), sick pay, national insurance contributions, pension contributions made to or on behalf of an employee, taxation (including all income tax deductible under PAYE) and all other emoluments);
- 5.1.2 "**Employment Liabilities**" means all costs (including the costs of enforcement), expenses, liabilities (including any tax liability), injuries, damages, awards, compensation, claims, demands, proceedings and legal costs (on a full indemnity basis);

- 5.1.3 “**Final Staff List**” has the meaning set out in paragraph 5.5;
- 5.1.4 “**Further Transfer Date**” means the date on which the services performed by the Contractor at the Refuelling Site (or any part of them) cease to be provided by the Contractor and start to be performed by the Company or any Replacement Contractor when (assuming that TUPE applies) the transfer of employment of the Re-Transferring Personnel from the Contractor to the Company or any Replacement Contractor occurs;
- 5.1.5 “**Relevant Period**” means the period starting on the earlier of:
- (a) the date falling 6 calendar months before the date of expiry of the Contract; or
- (b) if the Contract is terminated by either Party in accordance with **Clause 25**, the date of the relevant termination notice;
- (c) and ending on the Further Transfer Date;
- 5.1.6 “**Replacement Contractor**” means any replacement supplier or provider of the services carried on by the Contractor at the Refuelling Site (or any part of such services) and any Sub-Contractor to such replacement supplier or provider;
- 5.1.7 “**Re-Transferring Personnel**” means any Contractor’s Personnel who are assigned (for the purposes of TUPE) to the relevant services (or any part of them) immediately before the Further Transfer Date and whose employment contract will transfer to the Company or the Replacement Contractor pursuant to TUPE with effect from the Further Transfer Date;
- 5.1.8 “**Staff List**” has the meaning set out in paragraph 5.2;
- 5.1.9 “**Staffing Information**” has the meaning set out in paragraph 5.2;
- 5.1.10 “**Sub-Contractor**” means any subcontractor to the Contractor or the Replacement Contractor as the context dictates which is engaged in the provision of services at the Refuelling Site or any part of them (or services substantially similar to such services or any part of them) and includes the sub-contractor of any such sub-contractor; and
- 5.1.11 “**TUPE**” means the Transfer of Undertakings (Protection of Employment) Regulations 2006.
- 5.2 The Contractor will promptly provide (and procure that its Sub-Contractors provide) when requested by the Company (but not more than twice in any 12 month period) and not more than 7 days after the date of any notice to terminate this Contract given by either Party, the following information to the Company:
- 5.2.1 an anonymised list of current Contractor’s Personnel and employees and workers of its Sub-Contractors engaged in the provision of the Services (each identified as such in the list) (the “**Staff List**”);
- 5.2.2 such of the information specified in Appendix 1 to this paragraph 5 as is requested by the Company in respect of each individual included on the Staff List;
- 5.2.3 in the situation where notice to terminate this Contract has been given, an anonymised list of any persons who are materially engaged or have been materially engaged during the preceding six months in the provision of services at the Refuelling Site, whom the Contractor considers will not transfer

under TUPE for any reason whatsoever together with details of their role and the reasons why the Contractor thinks such persons will not transfer,

such information together being the "**Staffing Information**".

- 5.3 The Contractor will notify the Company as soon as practicable and in any event within 5 days of the Contractor becoming aware of any additional or new Staffing Information and any changes to any Staffing Information already provided.
- 5.4 The Contractor warrants to the Company that any Staffing Information which it supplies (including any copies of it) is complete and accurate in all respects and will be kept complete and accurate.
- 5.5 Subject to paragraph 5.6, the Contractor will provide the Company with a final Staff List (the "**Final Staff List**") and Staffing Information relating to persons on that list not less than 28 days before the Further Transfer Date.
- 5.6 If the Contract is terminated by either Party in accordance with **Clause 25** then the Final Staff List will be provided by the Contractor to the Company as soon as practicable and no later than 14 days after the date of termination of the Contract.
- 5.7 The Contractor warrants that as at the Further Transfer Date:
 - 5.7.1 the Final Staff List and the Staffing Information relating to persons on that list will be complete and accurate;
 - 5.7.2 the Final Staff List will identify all actual and potential Re-Transferring Personnel; and
 - 5.7.3 it will have disclosed all terms and conditions of employment or engagement and other Staffing Information relating to the Re-Transferring Personnel to the Company.
- 5.8 During the Relevant Period the Contractor will not and will procure that its Sub-Contractors do not without the prior written consent of the Company (such consent not to be unreasonably withheld or delayed):
 - 5.8.1 terminate or give notice to terminate the employment or engagement or replace the persons listed on the most recent Staff List or any Re-Transferring Personnel (save for any termination for gross misconduct, provided that the Company is informed promptly of such termination);
 - 5.8.2 deploy or assign any other person to perform services at the Refuelling Site who is not included on the most recent Staff List other than temporarily and in the ordinary course of business;
 - 5.8.3 make, propose or permit any changes to the terms and conditions of employment or engagement of any persons listed on the most recent Staff List or any Re-Transferring Personnel;
 - 5.8.4 increase to any significant degree the proportion of working time spent on the services at the Refuelling Site by any of the Contractor's Personnel other than temporarily and in the ordinary course of business; or
 - 5.8.5 introduce any new contractual or customary practice (including for the avoidance of doubt any payments on termination of employment) applicable to any person listed on the most recent Staff List or any Re-Transferring Personnel.

- 5.9 The Contractor will promptly notify the Company of any notice of resignation received from any person listed on the most recent Staff List or the Final Staff List (if any) during the Relevant Period regardless of when such notice takes effect.
- 5.10 The Contractor agrees that the Company will be permitted to disclose any information provided to it under this paragraph 5 in anonymised form to any person who has been invited to tender for the provision of services at the Refuelling Site (or similar services wherever located) and to any third party engaged by the Company to review the delivery of such services and to any Replacement Contractor.
- 5.11 If TUPE applies on the expiry or termination of the Contract, on the termination or variation of any service at the Refuelling Site or any part of such a service, or on the appointment of a Replacement Contractor, the following will apply:
- 5.11.1 The contracts of employment of the Re-Transferring Personnel will have effect from the Further Transfer Date as if originally made between the Re-Transferring Personnel and the Company or Replacement Contractor (or its Sub-Contractor) (as appropriate) (except in relation to occupational pension scheme benefits excluded under Regulation 10 of TUPE which will be treated in accordance with the provisions of the Pensions Act 2004 and the Transfer of Employment (Pensions Protection) Regulations 2005).
- 5.11.2 During the Relevant Period the Contractor will:
- 5.11.2.1 provide the Company or Replacement Contractor (as appropriate) with access to such employment and payroll records as the Company or Replacement Contractor (as appropriate) may require to put in place the administrative arrangements for the transfer of the contracts of employment of the Re-Transferring Personnel to the Company or Replacement Contractor (as appropriate);
- 5.11.2.2 allow the Company or Replacement Contractor (as appropriate) to have copies of any of those employment and payroll records;
- 5.11.2.3 provide all original employment records relating to the Re-Transferring Personnel to the Company or Replacement Contractor (as appropriate); and
- 5.11.2.4 co-operate with the Company and any Replacement Contractor in the orderly management of the transfer of employment of the Re-Transferring Personnel.
- If the Re-Transferring Personnel are employed or engaged by Sub-Contractors, the Contractor will procure such Sub-Contractors provide the Company or Replacement Contractor (as appropriate) with the same level of access, information and cooperation.
- 5.11.3 The Contractor warrants to each of the Company and the Replacement Contractor that as at the Further Transfer Date no Re-Transferring Personnel (except where the Contractor has notified the Company and the Replacement Contractor (if appointed) in writing to the contrary) to the Contractor's knowledge:
- 5.11.3.1 is under notice of termination;
- 5.11.3.2 is on long-term sick leave;

- 5.11.3.3 is on maternity, parental or adoption leave;
 - 5.11.3.4 has committed any serious security breach or engaged in any serious fraudulent activity or misconduct amounting to a breach of any regulations;
 - 5.11.3.5 is entitled or subject to any additional terms and conditions of employment other than those disclosed to the Company or Replacement Contractor (as appropriate);
 - 5.11.3.6 is or has been within the previous two years the subject of formal disciplinary proceedings;
 - 5.11.3.7 has received a written warning (other than a warning that has lapsed);
 - 5.11.3.8 has taken or been the subject of a grievance procedure within the previous two years; or
 - 5.11.3.9 has objected, or has indicated an intention to object, in accordance with TUPE to his or her employment transferring to the Company or Replacement Contractor (as appropriate) under TUPE.
- 5.11.4 The Contractor undertakes to each of the Company and any Replacement Contractor that it will (and will procure that its Sub-Contractors will):
- 5.11.4.1 continue to perform and observe all of its obligations under or in connection with the contracts of employment of the Re-Transferring Personnel and any collective agreements relating to the Re-Transferring Personnel up to the Further Transfer Date;
 - 5.11.4.2 pay to the Re-Transferring Personnel all Employment Costs to which they are entitled from the Contractor or any Sub-Contractor which fall due in the period up to the Further Transfer Date;
 - 5.11.4.3 to pay to the Company or the Replacement Contractor (as appropriate) within 7 days of the Further Transfer Date any apportioned sum in respect of Employment Costs as set out in paragraph 5.11.5; and
 - 5.11.4.4 to comply in all respects with its information and consultation obligations under TUPE and to provide to the Company or Replacement Contractor (as appropriate) such information as the Company or Replacement Contractor may request in order to verify such compliance.
- 5.11.5 The Parties agree that all Employment Costs in respect of the Re-Transferring Personnel will be allocated as follows:
- 5.11.5.1 the Contractor will be responsible for any Employment Costs relating to the period up to the Further Transfer Date;
 - 5.11.5.2 the Company or (where appointed) any Replacement Contractor will be responsible for the Employment Costs relating to the period on and after the Further Transfer Date,

and will if necessary be apportioned on a time basis (regardless of when such sums fall to be paid).

- 5.11.6 The Contractor will indemnify and keep indemnified each of the Company and any Replacement Contractor from and against all Employment Liabilities which the Company or the Replacement Contractor incurs or suffers arising directly or indirectly out of or in connection with:
- 5.11.6.1 any failure by the Contractor to comply with its obligations under this paragraph 5.11;
 - 5.11.6.2 any act or omission by or on behalf of the Contractor (or its Sub-Contractors) in respect of the Re-Transferring Personnel whether occurring before on or after the Further Transfer Date;
 - 5.11.6.3 any failure by the Contractor (or its Sub-Contractors) to comply with Regulation 13 of TUPE (except to the extent that such failure arises from a failure by the Company or the Replacement Contractor to comply with Regulation 13 of TUPE);
 - 5.11.6.4 any claim or demand by HMRC or any other statutory Company in respect of any financial obligation including but not limited to PAYE and national insurance contributions in relation to any Re-Transferring Personnel to the extent that such claim or demand relates to the period from the Contract Commencement Date to the Further Transfer Date;
 - 5.11.6.5 any claim or demand or other action taken against the Company or any Replacement Contractor by any person employed or engaged by the Contractor (or its Sub-Contractors) (other than Re-Transferring Personnel included on the Final Staff List) who claims (whether correctly or not) that the Company or Replacement Contractor has inherited any liability from the Contractor (or its Sub-Contractors) in respect of them by virtue of TUPE.
- 5.12 If TUPE does not apply on the expiry or termination of the Contract, the Contractor will remain responsible for the Contractor Personnel and will indemnify and keep indemnified the Company against all Employment Liabilities which the Company incurs or suffers arising directly or indirectly out of or in connection with the employment or termination of employment of any of the Contractor Personnel or former Contractor Personnel.
- 5.13 The Contractor will procure that whenever the Company so requires on reasonable notice at any time during the continuance in force of this Contract and for 2 years following the date of expiry or earlier termination of the Contract the Company will be given reasonable access to and be allowed to consult with any person, consultant or employee who, at that time:
- 5.13.1 is still an employee or sub-contractor of the Contractor or any of the Contractor's associated companies; and
 - 5.13.2 was at any time employed or engaged by the Contractor in order to provide the Services to the Company under this Contract,
- and such access and consultation will be provided on the first occasion free of charge and thereafter be charged at reasonable rates for the time spent by the Contractor or its employees or Sub-Contractors on such consultation. The Contractor will use all reasonable endeavours to procure that such persons co-operate with the Company's requests.

Appendix 1 to paragraph 5
Information to be provided in respect of those on the Staff List

- Amount of time spent on the Services (or any part of the Services specified by the Company)
- Date of birth
- Role Title/Designation and Role Profile
- Annual Salary £
- Bonus and Commission Amount and Frequency
- Pay Frequency and Date
- Overtime - Contractual or Non-Contractual and Rates
- Contractual Working Hours
- Contract Type - Permanent/Temporary
- Geographical Area Of Work/Location
- Commencement of Employment Date
- Continuous Service Date
- Car Allowance
- Pension Contributions
 - 1) Employer
 - 2) Employee
 - Including additional information on:
 - who were originally employees of the Company;
 - who were members of (or eligible to become members of) the TfL Pension Fund / The Local Government Pension Scheme for England and Wales/The Principal Civil Service Pension Scheme;
 - whose employment transferred from the Company to the Contractor under TUPE; and
 - who were entitled to broadly comparable benefits under the Contractor's Scheme
- Details of the relevant employee representative body or bodies and relevant collective agreements
- Date of Annual Pay Award
- Annual Leave Entitlement
- Contractual Notice Period
- Public Holiday/Concessionary Days Entitlement
- Sickness Entitlement (in 12 month rolling period)
- Salary/wage increases pending
- Eligibility for enhanced redundancy pay and any other contractual or non-contractual termination of severance arrangements (including methods of calculation)
- Details of any other benefits provided, whether contractual or non-contractual
- Copy of employment contract or applicable standard terms and employee handbook
- Any loans or educational grants
- For those employees who are foreign nationals the country of citizenship, immigrant status and all documentation required by law to demonstrate a right to work in the United Kingdom
- Information on any disciplinary or grievance procedure taken against or by an employee in the two years immediately preceding the information being provided
- Information about any tribunal claims in the immediately preceding two years or whether there are reasonable grounds to believe a claim may be brought
- Department and place on organisation chart
- Average absence due to sickness
- Training and competency records

6. PRIVACY AND DATA PROTECTION

For the purposes of this paragraph 6, unless the context indicates otherwise, the following expressions shall have the following meanings:

"Company Personal Data"	Personal Data and/or Sensitive Personal Data Processed by the Contractor or any sub-contractor on behalf of the Company, pursuant to or in connection with this Contract;
"Data Controller"	has the meaning given to it in Data Protection Legislation;
"Data Processor"	has the meaning given to it in Data Protection Legislation;
"Data Protection Impact Assessment"	a process used to identify and mitigate the privacy and data protection risks associated with an activity involving the Processing of Personal Data;
"Data Protection Legislation"	means: <ul style="list-style-type: none"> (a) any legislation in force from time to time in the United Kingdom which implements the European Community's Directive 95/46/EC and Directive 2002/58/EC, including but not limited to the Data Protection Act 1998 and the Privacy and Electronic Communications (EC Directive) Regulations 2003; (b) from 25 May 2018 only, the Regulation (EU) 2016/679 on the protection of natural persons with regard to the Processing of personal data and on the free movement of such data (the "General Data Protection Regulation"); (c) any other legislation in force from time to time in the United Kingdom relating to privacy and/or the Processing of Personal Data; and (d) any statutory codes of practice issued by the Information Commissioner in relation to such legislation;
"Data Subject"	has the meaning given to it in Data Protection Legislation;
"Personal Data"	has the meaning given to it in Data Protection Legislation;
"Processing"	has the meaning given to it in Data Protection Legislation and " Process " and " Processed " will be construed accordingly;
"Restricted Countries"	any country outside the European Economic Area;
"Sensitive Personal Data"	sensitive or special categories of Personal Data (as defined in Data Protection Legislation) which is Processed pursuant to or in connection with this Contract; and
"Subject Access Request"	a request made by a Data Subject to access his or her own Personal Data in accordance with rights granted in Data Protection Legislation.

- 6.1 With respect to the Parties' rights and obligations under the Contract, the Parties acknowledge that the Company is a Data Controller solely responsible for determining the purposes and manner in which Company Personal Data is to be Processed, and that the Contractor is a Data Processor.
- 6.2 Details of the Company Personal Data to be Processed by the Contractor and the purposes of such Processing are as follows:
- 6.2.1 The Company Personal Data to be Processed by the Contractor (if any) concerns the following categories of Data Subject:
- [List the relevant categories of Data Subject, e.g. staff, customers, members of the public.]***
- 6.2.2 The Company Personal Data to be Processed includes the following types of Personal Data and/or Sensitive Personal Data:
- [List the relevant types of Personal Data, e.g. names, email or postal addresses, telephone numbers, images, other unique identifiers.]***
- 6.2.3 The Company Personal Data is to be Processed for the following purpose(s):
- [List and summarise the relevant purpose(s).]***
- 6.2.4 The Company Personal Data is to be Processed in the following Restricted Countries:
- [Delete 6.2.4 if Company Personal Data will not be Processed in any Restricted Countries.***
- Where 6.2.4 does apply, list the relevant countries outside the European Economic Area (which includes all EU member states plus Norway, Iceland and Liechtenstein).]***
- 6.3 The Contractor shall:
- 6.3.1 process the Company Personal Data only in accordance with instructions from the Company to perform its obligations under the Contract;
- 6.3.2 use its reasonable endeavours to assist the Company in complying with any obligations under Data Protection Legislation and shall not perform its obligations under this Contract in such a way as to cause the Company to breach any of its obligations under Data Protection Legislation to the extent the Contractor is aware, or ought reasonably to have been aware, that the same would be a breach of such obligations;
- 6.3.3 notify the Company without undue delay if it determines or is notified that an instruction to Process Personal Data issued to it by the Company is incompatible with any obligations under Data Protection Legislation to the extent the Contractor is aware, or ought reasonably to have been aware, that the same would be a breach of such obligations;
- 6.3.4 maintain, and make available to the Company on its request, documentation which describes the Processing operations for which it is responsible under this Contract including:
- 6.3.4.1 the purposes for which Company Personal Data is Processed;
- 6.3.4.2 the types of Personal Data and categories of Data Subject involved;

- 6.3.4.3 the source(s) of the Personal Data;
 - 6.3.4.4 any recipients of the Personal Data;
 - 6.3.4.5 the location(s) of any overseas Processing of Company Personal Data;
 - 6.3.4.6 retention periods for different types of Company Personal Data; and
 - 6.3.4.7 where possible a general description of the security measures in place to protect Company Personal Data.
- 6.3.5 where requested to do so by the Company, or where Processing Company Personal Data presents a specific risk to privacy, carry out a Data Protection Impact Assessment in accordance with guidance issued from time to time by the Information Commissioner (and any relevant requirements detailed in Data Protection Legislation) and make the results of such an assessment available to the Company;
- 6.3.6 without prejudice to any cyber security and/or payment card industry data security standard obligations in this Contract, take appropriate technical and organisational security measures that are satisfactory to the Company from time to time, against unauthorised or unlawful Processing of Company Personal Data and against accidental loss, destruction of, or damage to such Company Personal Data;
- 6.3.7 without prejudice to any cyber security and/or payment card industry data security standard obligations in this Contract, provide the Company with such information as the Company may from time to time require to satisfy itself of compliance by the Contractor (and/or any authorised sub-contractor) with paragraphs 6.3.6 and 6.3.8, including, protocols, procedures, guidance, training and manuals. For the avoidance of doubt, this shall include a full report recording the results of any privacy or security audit carried out at the request of the Contractor itself or the Company;
- 6.3.8 notify the Company without undue delay and in any event within 24 hours by written notice with all relevant details reasonably available of any actual or suspected breach of this paragraph 6, including the unauthorised or unlawful Processing of Company Personal Data, or its accidental loss, destruction or damage;
- 6.3.9 having notified the Company of a breach in accordance with paragraph 6.3.8, keep the Company properly and regularly informed in writing until the breach has been resolved to the satisfaction of the Company;
- 6.3.10 fully cooperate as the Company requires with any investigation or audit in relation to Company Personal Data and/or its Processing including allowing access to premises, computers and other information systems, records, documents and agreements as may be reasonably necessary (whether in relation to Processing pursuant to the Contract, in relation to compliance with Data Protection Legislation or in relation to any actual or suspected breach), whether by the Company (or any agent acting on its behalf), any relevant regulatory body, including the Information Commissioner, the police and any other statutory law enforcement agency, and shall do so both during the Contract and after its termination or expiry (for so long as the Party concerned retains and/or Processes Company Personal Data);
- 6.3.11 notify the Company within two (2) Business Days if it, or any sub-contractor, receives:
- 6.3.11.1 from a Data Subject (or third party on their behalf):

- (a) a Subject Access Request (or purported Subject Access Request);
 - (b) a request to rectify, block or erase any Company Personal Data; or
 - (c) any other request, complaint or communication relating to the Company's obligations under Data Protection Legislation.
- 6.3.11.2 any communication from the Information Commissioner or any other regulatory authority in connection with Company Personal Data; or
 - 6.3.11.3 a request from any third party for disclosure of Company Personal Data where compliance with such request is required or purported to be required by law;
- 6.3.12 provide the Company with full cooperation and assistance (within the timescales reasonably required by the Company) in relation to any complaint, communication or request made as referred to in paragraph 6.3.11, including by promptly providing:
 - 6.3.12.1 the Company with full details and copies of the complaint, communication or request;
 - 6.3.12.2 where applicable, such assistance as is reasonably requested by the Company to enable it to comply with the Subject Access Request within the relevant timescales set out in Data Protection Legislation; and
 - 6.3.12.3 where applicable, such assistance as is reasonably required by the Company to enable it to comply with a request from a Data Subject to rectify, block or erase any Company Personal Data.
 - 6.3.13 when notified in writing by the Company, supply a copy of, or information about, any Company Personal Data. The Contractor shall supply such information or data to the Company within such time and in such form as specified in the request (such time to be reasonable) or if no period of time is specified in the request, then within two (2) Business Days from the date of the request;
 - 6.3.14 when notified in writing by the Company, comply with any agreement between the Company and any Data Subject in relation to any Processing which causes or is likely to cause substantial and unwarranted damage or distress to such Data Subject, or any court order requiring the rectification, blocking, erasure or destruction of any Company Personal Data; and
 - 6.3.15 if required to do so by Data Protection Legislation, appoint a designated Data Protection Officer.
- 6.4 The Contractor shall not share Company Personal Data with any sub-contractor without prior written consent from the Company and only where there is a written contract in place between the Contractor and the sub-contractor which requires the sub-contractor to:
 - 6.4.1 only Process Company Personal Data in accordance with the Company's instructions to the Contractor; and
 - 6.4.2 comply with the same obligations which the Contractor is required to comply with under this paragraph 6.
 - 6.5 The Contractor shall, and shall procure that any sub-contractor shall:

- 6.5.1 only Process Company Personal Data in accordance with the Company's instructions to the Contractor and as reasonably necessary to perform the Contract in accordance with its terms;
 - 6.5.2 not Process Company Personal Data for any other purposes (in whole or part) and specifically, but without limitation, reproduce or refer to it in training materials, training courses, commercial discussions and negotiations with third parties or in relation to proposals or tenders with the Company;
 - 6.5.3 not Process Company Personal Data in such a way as to:
 - 6.5.3.1 place the Company in breach of Data Protection Legislation;
 - 6.5.3.2 expose the Company to the risk of actual or potential liability to the Information Commissioner or Data Subjects;
 - 6.5.3.3 expose the Company to reputational damage including adverse publicity;
 - 6.5.4 not allow Contractor's Personnel to access Company Personal Data unless such access is necessary in connection with the provision of the Services;
 - 6.5.5 take all reasonable steps to ensure the reliability and integrity of all Contractor's Personnel who can access Company Personal Data;
 - 6.5.6 ensure that all Contractor's Personnel who can access Company Personal Data:
 - 6.5.6.1 are informed of its confidential nature;
 - 6.5.6.2 are made subject to an explicit duty of confidence;
 - 6.5.6.3 understand and comply with any relevant obligations created by either this Contract or Data Protection Legislation; and
 - 6.5.6.4 receive adequate training in relation to the use, care, protection and handling of Personal Data on an annual basis.
 - 6.5.7 not disclose or transfer Company Personal Data to any third party without the Contractor having obtained the prior written consent of the Company (save where such disclosure or transfer is specifically authorised under this Contract);
 - 6.5.8 without prejudice to paragraph 6.3.6, wherever the Contractor uses any mobile or portable device for the transmission or storage of Company Personal Data, ensure that each such device encrypts Company Personal Data; and
 - 6.5.9 comply during the course of the Contract with any written retention and/or deletion policy or schedule provided by the Company to the Contractor from time to time.
- 6.6 The Contractor shall not, and shall procure that any sub-contractor shall not, Process or otherwise transfer any Company Personal Data in or to any Restricted Countries without prior written consent from the Company (which consent may be subject to additional conditions imposed by the Company).
- 6.7 If, after the Service Commencement Date, the Contractor or any sub-contractor wishes to Process and/or transfer any Company Personal Data in or to any Restricted Countries, the following provisions shall apply:
- 6.7.1 the Contractor shall submit a written request to the Company setting out details of the following:

- 6.7.1.1 the Company Personal Data which will be transferred to and/or Processed in any Restricted Countries;
 - 6.7.1.2 the Restricted Countries which the Company Personal Data will be transferred to and/or Processed in;
 - 6.7.1.3 any sub-contractors or other third parties who will be Processing and/or receiving Company Personal Data in Restricted Countries;
 - 6.7.1.4 how the Contractor shall ensure an adequate level of protection and adequate safeguards in respect of the Company Personal Data that will be Processed in and/or transferred to Restricted Countries so as to ensure the Company's compliance with Data Protection Legislation;
- 6.7.2 in preparing and evaluating such a request, the Parties shall refer to and comply with applicable policies, procedures, guidance and codes of practice produced by the Parties and/or the Information Commissioner in connection with the Processing of Personal Data in (and/or transfer of Personal Data to) any Restricted Countries;
- 6.7.3 the Contractor shall comply with any instructions and shall carry out such actions as the Company may notify in writing when providing its consent to such Processing or transfers, including:
- 6.7.3.1 incorporating standard and/or model clauses (which are approved by the European Commission as offering adequate safeguards under the Data Protection Legislation) into this Contract or a separate data processing agreement between the Parties; and
 - 6.7.3.2 procuring that any sub-contractor or other third party who will be Processing and/or receiving or accessing the Company Personal Data in any Restricted Countries enters into a data processing agreement with the Contractor on terms which are equivalent to those agreed between the Company and the Contractor in connection with the Processing of Company Personal Data in (and/or transfer of Company Personal Data to) any Restricted Countries, and which may include the incorporation of the clauses referred to in paragraph 6.7.3.1.
- 6.8 The Contractor and any sub-contractor (if any), acknowledge:
- 6.8.1 the importance to Data Subjects and the Company of safeguarding Company Personal Data and Processing it only in accordance with the Company's instructions and the Contract;
 - 6.8.2 the loss and damage the Company is likely to suffer in the event of a breach of the Contract or negligence in relation to Company Personal Data;
 - 6.8.3 any breach of any obligation in relation to Company Personal Data and/or negligence in relation to performance or non-performance of such obligation shall be deemed a material breach of Contract;
 - 6.8.4 if the Contractor has committed a material breach under paragraph 6.8.3 on two or more separate occasions, the Company may at its option:
 - 6.8.4.1 withdraw authorisation for Processing by a specific sub-contractor by immediate written notice; or

- 6.8.4.2 terminate the Contract in whole or part with immediate written notice to the Contractor.
- 6.9 Compliance by the Contractor with this paragraph 6 shall be without additional charge to the Company.
- 6.10 Following termination or expiry of this Contract, howsoever arising, the Contractor:
 - 6.10.1 may Process the Company Personal Data only for so long and to the extent as is necessary to properly comply with its non-contractual obligations arising under law (and will then comply with paragraph 6.10.2);
 - 6.10.2 subject to paragraph 6.10.1, shall;
 - 6.10.2.1 on written instructions from the Company either securely destroy or securely and promptly return to the Company or a recipient nominated by the Company (in such usable format as and to the extent the Company may reasonably require) the Company Personal Data; or
 - 6.10.2.2 in the absence of instructions from the Company after 12 months from the expiry or termination of the Contract securely destroy the Company Personal Data.
- 6.11 Company Personal Data may not be Processed following termination or expiry of the Contract save as permitted by paragraph 6.10.
- 6.12 For the avoidance of doubt, and without prejudice to paragraph 6.10, the obligations in this paragraph 6 shall apply following termination or expiry of the Contract to the extent the Party concerned retains or Processes Company Personal Data.
- 6.13 The Parties' liability in respect of any breach of this paragraph 6 insofar as they relate to fines, court awards, settlements and legal costs shall be unlimited.

SCHEDULE 15

ENVIRONMENTAL SPECIFICATION

1 Preamble for Environment Schedule

1.1.1 The Mayor wants London to be recognised as a world leader in improving the environment, locally and globally. The GLA has published a number of detailed strategic aims on air quality, water, waste, climate change adaptation, and climate change mitigation and energy. These build on the GLA's "Leading to a Greener London" [document](#)², published in 2009, which sets out London's aims to be one of the greenest cities in the world. There is an ambition to cut London's carbon emissions by 60% by 2025.

1.1.2 More specifically, the Company has set the following targets within the TfL Corporate Environment Framework (Appendix 2), to help achieve Mayoral goals:

- We will contribute towards achieving the Mayor's target of a 60 per cent reduction in CO₂ emissions by 2025 (against a 2013 baseline) by aiming for a 40 per cent cut in TfL CO₂ emissions.

We will further reduce the amount of carbon emitted per passenger journey by cutting emissions of CO₂ per passenger kilometre by 40 per cent by 2025 (against a 2013 baseline). We will seek to support the Mayor's air quality targets for London by delivering a 50 per cent reduction in NO_x emissions from the bus fleet by 2020, against a 2013 baseline.

We will reduce particulate matter (PM) emissions from the bus fleet by 25 per cent by 2020, against a 2013 baseline and

We will reuse, recover and recycle 99 per cent of non-hazardous waste by 2031. The Company will set interim targets to achieve this. The Company will use 30 per cent of non-hazardous waste specifically for energy from recovery.

1.1.3 The Company expects the Contractor to play a leading role in helping the Company achieve its current and future environmental objectives and targets, to ensure the delivery of all current and future Mayoral Policies and Strategies relevant to the Company.

1.2 Environmental Management System

1.2.1 Until the Expiry Date, the Contractor shall maintain an environmental management system that is bespoke to the Contract and requirements of the Company and which, as a minimum meets the requirements below:

- The environmental management system shall be certified to the latest BS EN ISO14001 standard, or equivalent standard, by a United Kingdom Accreditation Service ("**UKAS**") (or equivalent) accredited certification body or the Contractor shall have an environmental management policy, and also an independently audited environmental management system to the standard of BS EN ISO14001, or equivalent.
- The Contractor shall carry out environmental aspect and impact assessments to identify all potential environmental aspects and impacts related to their activities, products and services they deliver and the Contractor shall provide details of any necessary environmental control measures. These are included in risk and benefit identification, control and mitigation measures outlined in designs and safe systems of work for any element of the Works.
- The Contractor shall review the environmental aspect and impact assessments as a minimum once a year, but must ensure they, and any associated control and mitigation measures, remain pertinent to the Works until the Expiry Date.

² <http://www.london.gov.uk/priorities/environment/vision-strategy/leading-to-a-greener-london>

- The environmental management system shall be consistent with and support the principles of the Rail and Underground HSE Policy, set out in Appendix 1 and the Company's Corporate Environment Framework set out in Appendix 2.

1.3 Environmental Management Plan(s)

1.3.1 As part of the EMS, the Contractor shall develop, implement and maintain –until the Expiry Date a contract specific Environmental Management Plan (EMP) for the delivery of the services to be submitted to and approved by the Company's Representative within three months of the Commencement Date.

1.3.2 The EMP shall be updated annually and not later than on each anniversary of the Commencement Date.

1.3.3 The Contractor shall make the EMP available to the Company for regular review (but not less than annually), through meetings with the Company's Representative and Environment Team(s).

1.3.4 Within the EMP, the Contractor shall demonstrate its contribution towards delivering the Company's environmental objectives, including but not limited to how the Contractor shall:

- Ensure environmental aspects are considered and incorporated in to its activities.
- Use partnership working on environmental matters (eg regulators, environmental bodies, industry groups, client and supply chains).
- Identify all potential environmental aspects and impacts of the contract, specific to its activities (from planning, design to delivery) demonstrating how the Contractor intends to minimise the potential risks and impacts.
- Ensure its environmental key performance indicators and targets contribute to the objectives and targets set out in the Company's Corporate Environment Framework, where the key themes are:

- **carbon, energy and climate resilience**; e.g. Demonstrating that it is actively minimising use of energy derived from fossil fuels in performing its obligations under the Contract; Setting and achieving a target/reduction in Carbon Dioxide emissions, in line with the Company's environmental objective and target;

- **reduction of air pollutants**; e.g. Setting and achieving targets for reduction in air pollutants (Particulate matter and Nitrogen oxides) in line with the Company's environmental objective and targets from sources under control of the Contractor, not through air sampling; demonstrating how it is meeting the Company's vehicle emissions requirements

- **reduction of noise, nuisance and vibration**; e.g. Setting and achieving a target/reduction in noise in line with the Company's environmental objective and target;

- **materials, resources and waste management**; e.g. Demonstrating a reduction in use of resources, such as water, minimising the generation of waste; avoiding the use and production of hazardous materials and the prevention of pollution. Achieving a % of waste diverted from landfill rate of 99% (or an equivalent reuse and recycling rate);

- Maintaining and, where possible, enhancing the quality of the built and natural environment;

- Demonstrate that it is meeting the requirements of the Company's Sustainable Timber Policy;
- Include an environmental staffing plan, describing the Contractor's environmental management organisation structure, identifying roles, accountabilities and responsibilities, and points of liaison with the Company. The staffing plan must demonstrate resources are appropriate to the scale and nature of the work.

1.4 Report on Progress

The Contractor shall provide the Company's Environment Team(s) and Company's Representative with an environmental performance report, including information on the performance of the environmental management system referred to in paragraph 1.2 (above). The report shall be submitted annually and not later than on each anniversary of the Commencement Date, and shall contain, but not be limited to:

- Any updates to previous Environmental Management Plans
- A summary of the environmental statistics for the previous year, including inter alia, environmental reviews
- A summary of findings and trends from audits, inspection and evaluation of compliance with legal and with other requirements
- A summary of any changing circumstances, including developments in legal and other requirements; and
- Proposed environmental improvement targets together with commentary on the previous year's improvement targets, including status of corrective and preventative actions.

1.5 Environmental Planned General Inspections

Not used

1.6 General requirements

Not used

2 Sustainable Design, maintenance and Operations

Not used

3 Climate Resilience

- 3.1 The Contractor shall ensure that any design, installation and maintenance plans and work, takes into account the climate parameters over the whole design life in which assets (including Natural Assets they support, such as trees, vegetation and Green Infrastructure) must perform, to support resilience to extreme weather.
- 3.2 The Contractor shall ensure that assets remain fit-for-purpose for the Company's needs during its design life period, taking into account the range of extreme weather and climate parameters that may occur during that time. This includes, but is not limited to:
 - Keeping assets within specified temperature tolerances as defined in the Company's standards relevant to the building and asset type applicable to this contract.

- Maintenance include measures to assist with keeping assets resilient during their design life, including but not limited to water efficiency, natural ventilation and shading, greening, and sustainable drainage.

4 Reducing Carbon Emissions and water usage

4.1 The Contractor shall where appropriate:

- a) ensure that when replacing assets, the Contractor uses assets with more energy efficient equipment. The Contractor shall notify the Company's Representative where this is not technically feasible, e.g. heritage feature.
- b) measure and report on carbon emissions and develop plans to reduce carbon emissions and energy usage that supports the Company in delivering its programme to improve energy efficiency, helping decrease emissions and lower costs.
- c) make use of the Company's automated Monitoring and Targeting (aM&T) software to analyse site performance, control out of hours consumption and also suggest, measure & verify efficiency enhancement projects.

Enhanced Capital Allowances

4.2 The Company is eligible to claim Enhanced Capital Allowances (ECAs) – subject to certain conditions – from HMRC, on qualifying plant and equipment through capitalised investment. Without prejudice to the provisions of **Clause 7** of the Contract, until the Expiry Date, the Contractor shall implement working methods, design systems, install and maintain assets that reduce energy and water consumption and continually improve energy and water efficiency, providing the relevant evidence to allow the Company to make the its claim for Enhanced Capital Allowances.

4.3 This will include but not be limited to:

- Avoiding unnecessary day and night time lighting;
- Installing energy efficient lighting, e.g. LED and controls;
- Purchasing and hiring of energy efficient (including fuel efficient) equipment where it is cost-effective, where possible chosen from the Energy Technology List;
- Purchasing and hiring of water efficient equipment where it is cost-effective, chosen from the Water Technology List
- Stating the savings / efficiencies achieved, documenting all assumptions made in the forecast of savings as well as any risks to the delivery of the initiative and attaching any validated* cashable savings (i.e. entry to the savings tool or other document) to the contract award submission. If Enhanced Capital Allowance rebates are expected to be received these should be clearly identified.
- The Contractor must register savings in the savings tool.
http://onelink.tfl.gov.uk/sites/cmrc1/toolkit/GBP/Pages/Commercial_Savings.aspx
>, for future cashable savings a review date must be noted.
- The Contractor must be prepared to provide data showing a forecast or actual savings figures which may require validation by local (Business Unit) Finance.

5 Air Quality and Dust

Control of Vehicle Emissions

5.1 The Contractor shall ensure that in the procurement or leasing of vehicles for use in the delivery of the Services:

- CO₂, air quality and noise impacts are minimised; and
- a technology neutral approach is adopted.

- 5.2 All vehicles used in the delivery of the Services shall meet or exceed the following CO₂ limits and European emission standards (Euro Standards) at the Commencement Date:
- Cars - maximum certified CO₂ emissions of 99 g/km and a minimum of Euro 6 emission standards by 2018 and 75 g/km by 2020
 - Vans equal to or less than 1205 kg kerb weight – maximum certified CO₂ emissions of 115 g/km CO₂ and a minimum of Euro 6 emission standards
 - Vans between 1205 and 1660 kg kerb weight – maximum certified CO₂ emissions of 155 g/km CO₂ and a minimum of Euro 6 emission standards
 - Vans greater than 1660 kg kerb weight – maximum certified CO₂ emissions of 189 g/km CO₂ and a minimum of Euro 6 emission standards
 - Heavy duty vehicles greater than 3500 kg kerb weight – Euro 6 emission standards.
- 5.3 If any vehicles used in the provision of the Services are due for replacement before the Expiry Date, the Contractor shall ensure that the replacement vehicle/engine meets the most stringent European or British regulated emissions standards (currently Euro 6/VI). Replacement vehicles must also meet the CO₂ limits set out above; in addition, TfL reserves the right to reduce CO₂ caps for cars and vans and introduce CO₂ caps for heavy duty vehicles during the contract term.
- 5.4 The supplier will be monitored, through self-certification and inspections at TfL sites and supplier premises, to ensure compliance with these terms. TfL reserves the right to refuse access to its estate to a vehicle which does not meet these criteria.
- 5.5 In line with Mayoral transport and environmental strategies and the Company's commitments to reduce pollutant and carbon dioxide emissions, the Contractor is required to use zero or ultra low tailpipe emission vehicles such as electric, plug-in hybrid or biomethane vehicles in their fleet where feasible. Zero and ultra low tailpipe emission cars and light duty commercial vehicles are widely available; if the Contractor is not able to deploy such vehicles they will be required to justify their decision to the Company.
- 5.6 Any necessary recharging/refuelling infrastructure required for low emission vehicles to be supplied by the Contractor on the Company's premises will only be permitted subject to the Company's written acceptance and by separate agreement on maintenance, installation and running costs. Where the Contractor operates such vehicles, operating experience and data will be shared with the Company on request.
- 5.7 The Contractor will ensure that all vehicles used in the performance of the Services are operated in such a way to ensure that environmental impacts are reduced as far as reasonably practicable. Operating data for all vehicles will be shared with the Company when requested.
- 5.8 The Contractor shall;
- Ensure vehicles used in connection with the Services are regularly serviced in line with the Manufacturers recommendations
 - Ensure all faults or problems on such vehicles are repaired/addressed as soon as practicable; and
 - Monitor and record all vehicle fuel and mileage in connection with the performance of the Services
- 5.9 The Contractor shall report the following information on a quarterly basis. The Company reserves the right to include additional monitoring requirements throughout the Contract period if required.
- Vehicle make and model
 - Individual vehicle official tailpipe CO₂ emissions (if available)
 - Individual vehicle official Euro emissions standard

- Vehicle servicing frequency
 - Vehicle fuel type and consumption (litres used)
 - Vehicle mileage; and
 - Percentage of the fleet on daily hire and hence excluded from the above.
- 5.10 The Contractor shall ensure that all driving staff undertake a fuel efficient and safe driver training course within three months of their starting to perform the Services. The Contractor shall ensure that the training course consists of theoretical training and practical implementation skills and is a minimum duration of one hour. Details of DVSA-approved training courses including LoCITY Driving and Safe Urban Driving are available on the Fleet Operator Recognition Scheme (FORS) website.
- 5.11 The Contractor shall provide the driver training records to the Company as instructed by the Company's Representative.

Equipment and Non-Road Mobile Machinery

- 5.12 The Contractor shall ensure that the adverse impacts of emissions from equipment used in the performance of the Services are minimised. Measures to be considered for limiting emissions and avoiding nuisance will include any one or more of the following as appropriate and as far as reasonably practicable:
- Ensuring that the engines of all vehicles and equipment used in connection with the Services are not left running unnecessarily;
 - Using low emission vehicles and equipment fitted with catalysts, diesel particulate filters or similar devices;
 - Using ultra low sulphur fuels in plant and vehicles;
 - Requiring equipment and vehicles to be well maintained, with routine servicing to be completed in accordance with the manufacturers' recommendations and records maintained for the work undertaken;
 - Requiring all vehicles, including off-road vehicles to hold current MOT certificates, where required by Applicable Laws, (or tested to an equivalent standard) and requiring them to comply with exhaust emission regulations for their class;
 - Using routes and operating equipment away from potential receptors such as houses, schools and hospitals;
 - Avoiding the use of diesel or petrol powered generators and instead using mains electricity or battery powered equipment;
 - Maximising energy efficiency (this may include using alternative modes of transport, maximising vehicle utilisation by ensuring full loading and efficient routing); and
 - Providing all operating data complying with the schedules, deadlines and timelines as required to the Company as part of quarterly reporting
- 5.13 All of the Contractor's non-road mobile machinery (NRMM) must meet or exceed the following requirements:
- NRMM used on any site within Greater London are required to meet Stage IIIB of EU Directive 97/68/EC (as amended) emission standards as a minimum
 - From 1 September 2020: NRMM used on any site within Greater London must meet Stage IV of EU Directive 97/68/EC (as amended) emission standards as a minimum.
- 5.14 All NRMM must meet the applicable standards unless it can be demonstrated that the machinery is not available or that a comprehensive retrofit to meet PM₁₀ and NO_x emission standards is not feasible. In this situation, every effort must be made to use the least polluting equipment available (next best available EU stage) including retrofitting technologies to reduce particulate emissions.
- 5.15 Where applicable, the Contractor must comply with the Greater London Company's (GLA) NRMM Exemption policy for any NRMM, which cannot meet the emissions requirements, which can be found at nrmm.london. The Contractor shall seek exemption from the Company's Representative for any NRMM of net power between 19

and 36 kW that cannot comply with the emissions standards.

5.16 The Contractor shall also:

- Maintain an inventory of all on-site NRMM using the GLA's nrmm.london database.
- Regularly service all machinery and keep records on site

Guidance may be found in the "[The control of dust and emissions during construction and demolition - Supplementary Planning Guidance \(SPG\) Greater London Company \(2014\)](#)".

Dust

5.18 The Contractor shall use the best practicable means to reduce dust and other emissions at all times and not to create a dust nuisance. When undertaking construction works, the Contractor shall comply with the requirements of the Best Practice Guidance – 'The Control of Dust and Emissions from Construction and Demolition', see Appendix 6.

5.19 If the Company's Representative decides that the Contractor is not dealing adequately with the control of dust or other emissions, the Company's Representative may instruct the Contractor to carry out such additional measures as the Company's Representative considers are necessary. Such measures will not be subject to the Contract Variation Procedure.

6 Noise and Vibration

General

6.1. Until the Expiry Date, the Contractor shall:

- a) Use the best practicable means to control and limit noise and/or vibration levels so that affected properties, and other sensitive receptors, are protected from excessive or prolonged noise and vibration associated with all activities.
- b) Develop and maintain a Noise and Vibration Management Plan, as part of the Environmental Management Plan, for activities with the potential to generate noise and/or vibration. The Noise and Vibration Management Plan shall set out how noise and vibration requirements shall be managed and the Contractor shall undertake the Works in strict adherence to this plan.
- c) Apply the best practicable means to reduce noise and vibration at all times having regard to the provisions of the latest edition BS5228 - Code of Practice for Noise and Vibration Control or other relevant Good Industry Practice.
- d) Stipulate and ensure adherence to behavioural conditions to workers around minimising impacts to neighbours, such as conduct when arriving and leaving the Company's property during any night works
- e) Employ a trained and competent person to undertake noise and/or vibration monitoring if required and complies with any additional measures required including relocation or modification of equipment to reduce noise and vibration. The monitoring scope shall be agreed in advance with the Company's representative. Monitoring results shall be provided to the Company on request.

- f) Where involved in project work, the Contractor must comply with the requirements of the Company's Pathway Site Noise and Vibration Evaluation and Control, Appendix 4

Prior consent

Not used

Notifications

Not used

Noise Complaints Handling

Not used

7 Waste and Resources Management

Waste Electronic and Electrical Equipment

Not used

Waste Other

7.2

[NOT USED]

- 7.3 The Contractor's waste management plan shall document how, until the Expiry Date, the Contractor will:
- Implement the waste hierarchy
 - Comply with current legislation in relation to the storage, handling, treatment, transfer and disposal of all waste materials produced in the performance of the Services. As a carrier of waste, the Contractor shall be registered as a Waste Carrier with the Environment Agency and shall provide evidence of registration within the waste management plan and on renewal of the registration.
 - Set waste reuse, recovery and recycling targets that meet or exceed the Company's targets
 - Monitor and report waste arising as per Key Performance Indicator requirements
 - Ensure key staff are trained in waste minimisation and management techniques
 - Increase recycled content of materials used in construction and any other materials purchased
 - document all decisions taken during any design work to reduce waste, and ensure this information is passed to Company.

- 7.4 The Contractor shall implement and update the Waste Management Plan, maintain records throughout the duration of this Contract and make available these records for review by the Company on request.
- 7.6 The Contractor is responsible for the management and removal of all waste arisings as soon as practicably possible in accordance with Good Industry Practice.
- 7.7 The Contractor shall make available to the Company, within 3 Working Days of request, any waste records (such as Consignment notes and transfer notes).
- 7.8 Where involved in project work, the Contractor shall comply with the requirements of the TfL Pathway Waste Management Plan, Appendix 5.
- 7.9 All projects on office buildings, must use the template to record and submit waste data: TfL Facilities: Small Projects Waste Proforma

Recycled Content of Materials

- 7.10 The Contractor shall ensure a minimum of 20 % of the total material value of products and materials selected for the Works derives from reused and recycled content. The Contractor shall submit proposals to the Company's Representative regarding the areas of opportunity to exceed this target figure. The Contractor shall provide a detailed explanation and justification to the Company's Representative for any failure to achieve the 20% target figure. The plan shall be documented in the Environmental Management Plan, with performance reported in the annual environmental performance report referred to in paragraph 1.4 (above).

8 Pollution Prevention

Not used

9 Natural environment

Not used

10 Reducing the environmental impact of materials

VOCs and chemicals with adverse environmental impacts

- 10.1 The Contractor shall develop a plan within the first year of the Commencement Date to identify all products used in the performance of the Services and then risk assess and propose the phased replacement of high VOC products or similar e.g. paints, aerosols, degreasers, adhesives, sealants etc. herbicides, drain cleaners pesticides, biocides and other similar products with a "lower" environmental impact. The intention of the plan is to remove over time all high impact or high risk products over the first three years of the period of the Contract.

N.B. It is recognised by the client that some products maybe be of high risk but high efficacy or no realistic alternative exists at this time e.g. petrol and can remain.

Consumables - General

- 10.2 In accordance with the Company's commitment to reducing its environmental impact through responsible procurement, the Contractor is required to use cleaning products and other consumables that have the least environmental impact. The products used by the Contractor comply with the European Eco-label or equivalent standard, these include, but are not limited to:
- All purpose cleaners
 - Sanitary cleaners
 - Toilet roll and hand towels
 - Soaps

N.B. Products which meet the European Eco-label can be found at <http://www.eco-label.com>.

Appendix 1: Health Safety and Environment Policies
LU HSE Policy

Appendix 2 TfL Corporate Environment Framework

Appendix 3: Environmental Planned General Inspection Template – as *Appendix A of Lot 3A of current Stations (Lanes) contract*

Appendix 4: Site Noise and Vibration Evaluation and Control

Appendix 5: Waste Management Plan (WMP)

Appendix 6: The control of dust and emissions”

SCHEDULE 16

RESPONSIBLE PROCUREMENT

WI 1560

Enhanced Capital Allowances Scheme

- (1) For the purposes of this WI1560:

“Certificate of Energy Efficiency” means a certificate from the relevant government department which confirms that a product meets the eligibility criteria for the Enhanced Capital Allowances Scheme.

“Certificate of Environmental Benefit” means a certificate from the relevant government department which confirms that a product meets the eligibility criteria for the Enhanced Capital Allowances Scheme.

“Enhanced Capital Allowances Scheme” means the government’s enhanced capital allowance scheme for energy-efficient and water-efficient technologies as updated and amended from time to time.

“Energy Technology Criteria List” means the government-managed list of technology classes and criteria for energy-efficient plant and machinery, as updated and amended from time to time, which forms part of the government’s Enhanced Capital Allowances Scheme.

“Energy Technology Product List” means the government-managed list of energy-efficient plant and machinery, as updated and amended from time to time, which forms part of the government’s Enhanced Capital Allowances Scheme.

“Water Technology Criteria List” means the government-managed list of technology classes and criteria for water-efficient plant and machinery, as updated and amended from time to time, which forms part of the government’s Enhanced Capital Allowances Scheme.

“Water Technology Product List” means the government-managed list of water-efficient plant and machinery, as updated and amended from time to time, which forms part of the government’s Enhanced Capital Allowances Scheme.

- (2) The *Employer’s* ECA Tool is a document which can be used to capture information about Plant and Materials which are eligible for enhanced capital allowances. The *Contractor*

- populates the ECA Tool provided by the *Employer*; and
- provides the *Employer* with the information set out below

within one month of the installation of the eligible Plant and Materials or, if delivery of the Plant and Materials occurs in the *Employer’s* financial year preceding the *Employer’s* financial year in which installation takes place, within one month of the delivery of the Plant and Materials to Site:

- Details of all Plant and Materials which are eligible for enhanced capital allowances, including:
 - The number of eligible products
 - Unique model reference numbers
 - Manufacturer details and evidence of conformance with minimum performance
- The cost per individual product
- Any applicable professional fees directly associated with the provision of each eligible product

- The installation and delivery costs of each eligible product and associated preliminaries directly associated with the provision of each eligible component
- Details of the asset on which each eligible product will be installed

Documentation evidencing delivery date.

- (3) Where Plant and Materials which meet the criteria in the Energy Technology Criteria List are not on the Energy Technology Product List, unless otherwise agreed by the *Employer*:
- if the *Contractor* is the manufacturer, the *Contractor* applies to have those Plant and Materials added to the Energy Technology Product List;
 - if the *Contractor* is not the manufacturer, the *Contractor* uses best endeavours to procure that the manufacturer applies to have those Plant and Materials added to the Energy Technology Product List; or
 - if the Plant and Materials are not capable of being included on the Energy Technology Product List, the *Contractor* provides to the *Project Manager* and the *Employer*:
 - a declaration of conformity, in a form acceptable to the *Project Manager* and the *Employer*, that the Plant and Materials comply with the relevant criteria; or
 - where the Plant and Materials fall within the technology class of combined heat and power and are eligible for a Certificate of Energy Efficiency, such information as they require to enable the *Employer* to apply for a Certificate of Energy Efficiency.
- (4) Where Plant and Materials which meet the criteria in the Water Technology Criteria List are not on the Water Technology Product List, unless otherwise agreed by the *Employer*:
- if the *Contractor* is the manufacturer, the *Contractor* applies to have those Plant and Materials added to the Water Technology Product List;
 - if the *Contractor* is not the manufacturer, the *Contractor* uses best endeavours to procure that the manufacturer applies to have those Plant and Materials added to the Water Technology Product List; or
 - if the Plant and Materials are not capable of being included on the Water Technology Product List, fall within the technology class of water reuse and are eligible for a Certificate of Environmental Benefit, the *Contractor* provides to the *Project Manager* and the *Employer* such information as they require to enable the *Employer* to apply for a Certificate of Environmental Benefit.
- (5) Where necessary the *Contractor* seeks confirmation from the *Project Manager* of the information to be provided in accordance with WI1560.

WI1155 Energy Saving and Carbon Reduction Requirements

- (1) For the purposes of this WI1155:
- “Certificate of Energy Efficiency”** means a certificate from the relevant government department which confirms that a product meets the eligibility criteria for the Enhanced Capital Allowances Scheme.
- “Certificate of Environmental Benefit”** means a certificate from the relevant government department which confirms that a product meets the eligibility criteria for the Enhanced Capital Allowances Scheme.