

Eden Geothermal Limited
The Eden Project
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Date: 23rd September 2021

INVITATION TO TENDER

Dear Sir/Madam

Project	Eden Geothermal Project
Tender Name	Design, supply and installation of a heat main
Tender reference	EGL-ITT-C067

You are invited to submit a competitive tender for the design, supply and installation of a heat main at the Eden Project. This contract is part of a project co-funded by the European Regional Development Fund.

Please submit your proposal in full no later than:

Friday 15th October 2021 at 16:00 hours

Except under exceptional circumstances, no extension of time and date by which the tender must be submitted will be granted. Late submissions will not be accepted.

Any query in connection with this tender or the invitation to tender shall be submitted in writing (by email) to tenders@edengeothermal.com by:

Thursday 7th October at 12.00 noon

We look forward to receiving your submission.

Yours faithfully

Augusta Grand
Executive Director



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Invitation to Tender:

Design, supply and installation of a heat main

Project	Eden Geothermal Project
Tender reference	EGL-ITT-C067
Revision	Ver 2.0
Release Date	23 rd September 2021
Issuer	Eden Geothermal Limited (“EGL”)
Supplier Response Date	15 th October 2021 at 16.00

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PART A: INSTRUCTIONS TO TENDERERS

1 Instructions for Completion

1.1 Submission Details

Eden Geothermal Limited is issuing this Invitation to Tender (ITT) for the design, supply and installation of a heat main to supply geothermal heat to the Eden Project, Cornwall PL24 2SG, UK.

The Applicant will be required to submit a written proposal as part of the response, in the form set out. Applicants must submit their tenders as two separate sets of documents, to ensure separation of technical and commercial bids.

- Document set one: Company Information (Schedules 1a – 1g), Declaration (Schedule 2), and Technical Submission (Schedule 3); sent separately from
- Document set two: Commercial Submission (Schedule 4).

The Applicant should submit both an emailed AND a hard copy of these documents:

- A signed **electronic copy** of the two sets of documents should be sent by email, quoting the contract title EGL-ITT-C067. Electronic submissions should include any relevant appendices and be in PDF or read-only format. Electronic tenders should be submitted to tenders@edengeothermal.com and must be received into the mailbox by the deadline of **Friday 15th October 2021 at 16.00 hours**. EGL recommends a maximum attachment file size of 20MB; tenderers may send their submission as several emails – provided Schedule 4/Commercial Submission is sent separately from other parts of the tender.
- A signed **hard copy** of the two sets of documents, inclusive of any relevant appendices, must be posted/sent by **Friday 15th October at 16:00 hours**. EGL will require proof of posting/courier in the form of postmark or sender's receipt to verify submission by the deadline stated. Envelopes and packages should be marked with the contract reference EGL-ITT-C067 and must bear no reference to the tenderer by name; franking machines which automatically print the company's name should not be used. Hard copy tenders should be submitted to:

The Authorised Officer, Eden Geothermal Limited, Foundation Building, Eden Project, Bodelva, Par, Cornwall PL24 2SG, UK.

Emailed tenders will be received up to the time and date stated. Hard copy tenders will be inspected to ensure that they have been sent by the date and time stated. Any tenders received before the due date will be retained unopened until then. It is the responsibility of the tenderer to ensure that their email copy tender is delivered, and their hard copy tender is sent, not later than the appointed time. EGL reserves the right to not consider any tenders submitted after the deadline, in which event late bids will not be accepted.

Applicants may request extensions to submission deadlines with a valid reason, which may be accepted at the discretion of the Evaluation Panel of Eden Geothermal Limited. All other Applicants will be notified of any extension that is granted.

Applicants are advised that Eden Geothermal Ltd is not bound to accept the lowest price submitted, and will not reimburse any expense incurred by Applicants during the tendering process.

Any information relating to Eden Geothermal Ltd and supplied by Eden Geothermal Ltd in relation to this project shall be retained by the Applicant in strictest confidence.

1.2 Enquiries and Tender Queries

Please register your interest by emailing the address below, quoting the tender reference number EGL-ITT-C067.

Send all enquiries by email, by the deadline stated at Section 2, quoting the tender reference printed at the front of this document (EGL-ITT-C067) to:

tenders@edengeothermal.com

Bidders shall provide a single point of contact in their organisation. Eden Geothermal Ltd shall not be responsible for contacting the bidder through any route other than the nominated contact. The bidder must therefore undertake to notify Eden Geothermal Ltd of any changes relating to the point of contact.

Applicants are advised that, where Eden Geothermal Ltd considers appropriate, a copy of any such enquiries will be distributed to all Applicants along with the response, although the original Applicant's identity will remain confidential. Applicants will only receive the response if they have registered their interest.

1.3 Format of Tender Submission

Applicants must provide the following:

1. Company Information – Schedules 1a to 1j inclusive
2. Declarations – Schedule 2
3. Technical submission – Schedule 3
4. Commercial submission – Schedule 4 (submitted separately)

1.4 Project Description

You can find information about Eden Geothermal and the project of which this contract is part on our website: www.edengeothermal.com

1.5 Outline of Requirements

The full description and scope of goods and services to be provided are set out Appendix A. Please read this section in conjunction with Appendix A.

A heat main is required to be installed at the Eden Project linking the deep geothermal site and the Eden Energy Centre, which supplies and distributes heat to the biomes and offices. The heat main will be used to conduct hot water from the geothermal site to feed into (i) the Energy Centre, with (ii) a short spur to a new greenhouse facility.

At each load centre a plate heat exchanger (PHEX) will be provided (by others) to ensure the network is hydraulically broken from the local building systems. The total length of the pipeline route is approximately 1.2 km. The heat main will comprise a pre-insulated hot water feed line and a cool water return line, both of which will be buried beneath ground level. The provision of this service will require:

- i. the design of the heat main to valve pits at each load centre;
- ii. the materials to be supplied; and
- iii. the heat main to be installed.

1.5.1 Heat load demand

The Eden Geothermal load assessment outlined below is a summary of the expected peak and annual heat demands for the key load centres on the Eden Project Site.

The initial load assessment indicates that the sum of the peak heating loads may be in excess of the single well borehole capability, but is well within that produced from the two well system. (Please see point 1.5.3 below and / or website for information about the single and dual well phases.)

Eden Energy Centre (biomes):

- Peak Load = 2,000 kW
- Annual load = 5,385,000 kWh

The existing biomes peak heating allowance has been determined based on BMS data for the Wet Temperate Biomes (WTB) and the Humid Tropics Biome (HTB) over an extreme cold period in February to March 2018.

Greenhouses:

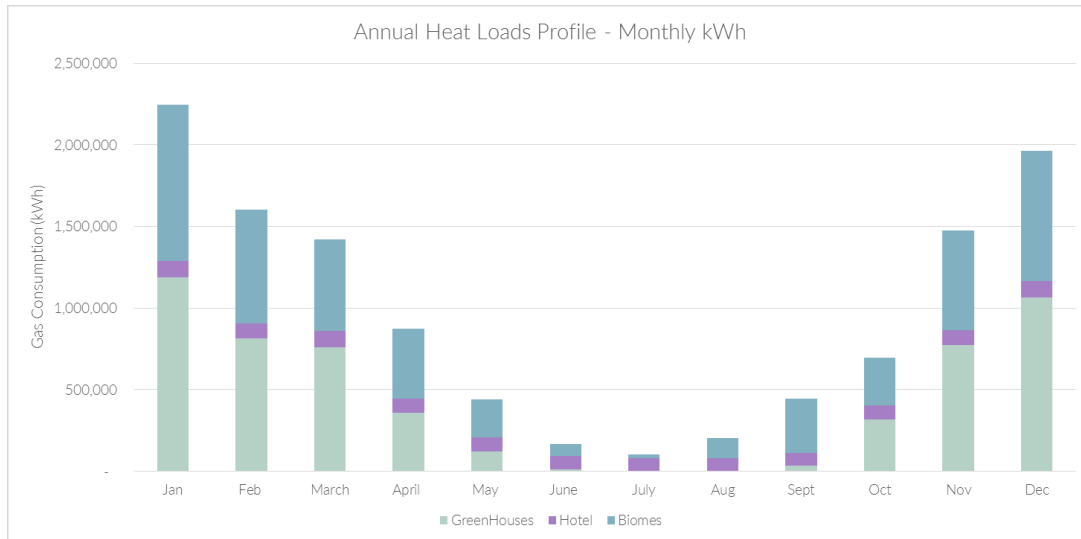
- Peak Load = 1,555 kW
- Annual load = 9,375,500 kW

The Greenhouses peak load (59W/m²) is an approximate allowance at this stage, based on previous thermal modelling data from a similar Biome / Greenhouse project which utilised ETFE pillow construction.

This load will be subject to change depending of confirmation of the following key parameters:

- Confirmation of size (2.65 Ha has been allowed)
- Internal Temperature criteria, i.e. min winter heating temperature
- Likely construction / U Values
- Heating requirements W/m² if known.

The annual heat load profile is shown below.



1.5.2 The route of the heat main

The proposed heat pipeline route is shown on the two heat main detail drawings. (See Appendix B)

1.5.3 Heat supply

The primary purpose of the heat main is to deliver direct heat to the Eden Energy Centre. The delivery of this heat will be met during two phases of the project:

- *Phase One*

The first phase will be carried out once the drilling and well testing of the first deep well (EG-1), currently underway, has been completed. It will utilise a coaxial system to extract heat from a single well by installing open-ended tubing down the well to a depth of ~3,500 metres and then injecting cold fresh water down the annulus and producing heated water at surface from the tubing. This will be a closed-loop system. The warm production water will pass through a heat exchanger on the geothermal site that heats the hot water feed of the heat main to the Eden Energy Centre. The heat main will be a closed loop circuit with the cool return water being pumped back from the energy centre to the geothermal site.

The thermal output from the borehole will not be known until it is operational but can be expected to be in the range 2.5 MWth to 3.0 MWth. The production fluid will be 'fresh water' at an anticipated temperature of up to 95°C at a flow rate of circa 30 - 60 l/s. It is

anticipated that the reinjection temperature once it has passed through the heat exchanger will be approximately 60°C.

The expected system operating conditions for this single well heat network are summarised below:

- Production Flow Temperature = 85 - 95 °C
- Reinjection Temperature = 60 °C
- Expected Borehole Flow Rates are 30l/s to 60 l/s
- System Operating Pressure = 6 to 10 Bar

The heating network flow temperature is not expected to exceed 95°C The initial load assessment indicates that the sum of the peak heating loads will be in excess of the heat production capability of the single well. This is not considered to be a concern as coincident peak loads are unlikely to be frequently experienced. Existing local heat sources will be maintained to meet any excess heat demand at the load centres.

- *Phase 2*

The second phase will be the long-term operating stage and will take place once the second deep well has been drilled and the CHP plant has been constructed and commissioned. The operating system will involve producing superheated water at a flow rate of up to 80 l/s and a temperature of ~175°C, from the production well. The fluid produced from the well is anticipated to be a brine.

The hot production fluid will pass through a primary heat exchanger, which will be primarily used to provide heat to an ORC power plant. This heat exchanger will supply heat to a separate closed loop system, containing a refrigerant fluid, for the power generation plant.

The outlet fluid from the primary heat exchanger will be approximately 90 - 100°C and will then pass through a secondary heat exchanger which will effectively be the same as that used for the single well system to deliver heat to the heat main. The outlet fluid from the secondary heat exchanger will be reinjected into the injection well at a temperature of 60 - 70°C. It is also possible that waste heat from the cooling plant on the ORC circuit could be utilised to supplement the secondary heat exchanger.

The expected system operating conditions for the heat main during the operation of the long-term two well system are summarised below:

- Production Flow Temperature = 85 - 95 °C
- Production Flow Rate = 30 - 60 l/s
- Outlet temperature from primary heat exchanger = 90 - 100°C
- Reinjection Temperature = 60 °C
- Reinjection Flow Rate = 30 - 60 l/s
- System operating pressure = 6 – 10 bar

The anticipated lifetime of this operating stage is in excess of 35 years.

The final heat outputs for both these stages will not be known until the wells have been completed to full depth. Given the experimental nature of this geothermal system and the constraints of the heating flow and return temperatures at the Eden Energy Centre, the

proposed network may be subject to a number of key technical risks, including heat load variability and periods where heat transfer from the geothermal system to the energy centre is limited / prevented. In addition, the greenhouse nursery has yet to be designed and constructed, so its precise heat demand is not yet known

The selection of the most appropriate material should take account of the operating temperature and pressure capabilities of the pipework, cost-effective maximisation of insulation and the rigidity of the pipework for installation purposes. The aim is to find a material that provides a suitable balance between installation costs and minimising heat loss from the pipework (ideally $<1^{\circ}\text{C}$).

1.6 Validity Period

Tenders must remain valid for acceptance for a period of 90 days from the Tender Return Date.

1.7 Form of Contract

The *conditions of contract* shall be those set out in the NEC4 Engineering and Construction Short Contract June 2017 (Option A). A draft form of the Clients Contract Data and amendments to the standard NEC contract are set out in Appendix C and will incorporate:

- Section 1.5 and Appendix A (Scope of Works)
- Schedules 3 and 4 as submitted by the successful bidder.

1.8 Financial Terms

All prices will be fixed, in £ sterling, exclusive of VAT and inclusive of all other taxes and duties.

2 Timetable

This procurement will follow a clear, structured and transparent process at all times, to ensure that all Applicants are treated equally. The key dates for this procurement (timetable) are as follows:

Process	Date
Issue of Tender	Thursday 23 rd September 2021
Closing date for clarification questions	12:00 Thursday 7 th October 2021
EGL to respond to clarification questions	Friday 8 th October 2021
Tender return date	16:00 hrs Friday 15 th October 2021
Award decision communicated to the winning tenderer	Friday 29 th October 2021
Notify unsuccessful tenderers	Friday 29 th October 2021
Expected contract award date	Monday 1 st November 2021
Expected contract start date	Monday 1 st November 2021
Expected contract completion date	TBC

Date set for the receipt of bids at Eden Geothermal Ltd: Friday 15th October 2021 at 16.00.

PART B: RETURN OF TENDER

3 Tender Completion Documentation

This Section provides information to help Tenderers prepare their tenders. Applicants are advised to read all the documentation carefully to ensure that they are familiar with the nature and extent of their obligations should their tender be accepted.

The Applicant must complete and return all relevant documents as part of their Tender response. The tender return templates are contained in Part G:

1. Company Information – Schedules 1a to 1j inclusive
2. Declarations – Schedule 2
3. Technical submission - Schedule 3
4. Commercial submission – Schedule 4 (to be submitted separately).

Schedules 1, 2 and 3 may be submitted jointly but Schedule 4 must be submitted as a separate document.

It is the responsibility of the Applicant to inform EGL of any matter that may affect the Applicant's qualification.

All Applicants must complete Schedules 1, 2, 3 and 4. Applicants must ensure that all questions are completed in full, in English, and in the format requested. Failure to do so may result in the submission being disqualified. Applicants are expected to supply all required information, or clearly state the reason for being unable to do so. Where the question does not apply, please state clearly 'N/A'. Where the answer is a statement of fact, it must be accurate. It is the Applicant's responsibility to ensure that EGL is not misled.

Any appropriate supporting documents (e.g.; maps, brochures, organisation charts, etc.) should be included as additional information. Please supply them as an appendix. They should be numbered clearly and listed as part of your declaration. PDF is the only acceptable electronic file format. Any additional documents provided by the Applicant must refer to a specific item within the ITT and be easily identifiable as the answer to a particular question or set of questions.

Should the Applicant wish to propose a deviation from the specification, please ensure that this is clearly identified in the response where appropriate.

3.1 Company Information

3.1.1 Company Details

The Applicant must complete the details required in **Schedule 1a**. Where the Applicant is a consortium or partnership bidder, Schedule 1a must be completed by each member of the consortium or partnership.

3.1.2 Financial Matters

The Applicant is required to provide the information requested in **Schedule 1b**. In the case of a consortium or partnership bid, all members of the consortium or partnership should complete this information. This section may be used, in conjunction with credit reference agency checks if necessary, to gain a basic indication of the financial stability of the Applicant. The determination of the appropriate risk level will be proportionate and relevant to the size, value and nature of the specific contract being tendered. For this contract, EGL will wish to see Capital and Reserves in excess of 100,000 GBP. Where the company does not have the required level of reserves, we will accept parent company or personal guarantees to the same value. EGL reserves the right to undertake further independent financial checks, if it feels it important to do so. Financial responsibility cannot be shared. Consortium or partnership bids must state one of the members of the partnership as the Lead Applicant, which will be the financially responsible party.

3.1.3 Legal Matters, Disputes and Conflicts

EGL is obliged to consider certain legal and conflict matters that could affect the ability of the Lead Applicant, or its partners, to deliver the services required for this contract. Some of these matters would lead to a mandatory exclusion. The Lead Organisation and its partner organisations must complete answers to all the questions in **Schedule 1c, 1d and 1e**.

If the answer to any of the questions is 'yes', please provide full details and the steps taken as a consequence.

3.1.4 Insurance and warranties

For any Applicant to be successful, adequate insurance cover and proof of warranties will be required. The minimum levels are indicated in Schedule 1f. The Lead Organisation, and any partners or consortium members, must complete **Schedule 1f** with the relevant information and confirm that the details entered are correct. If the Applicant does not currently have the required level of insurance, please confirm that it will have the cover required should it be awarded the contract. If the policy held is in the aggregate, the remaining cover must exceed the minimum requirements shown.

3.1.5 Equality and Diversity

The Lead Organisation must complete **Schedule 1g** confirming that their organisation and any partner or sub-contract organisation complies with its legal obligations under European law relating to equality and diversity.

3.1.6 Health & Safety, Quality Assurance and Environment

The Applicant must supply a copy of all relevant Health and Safety, Environmental Management and Quality Assurance policies as requested in **Schedules 1h & i**. In the case of a consortium or partnership bid, the Health and Safety, Quality Assurance and Environment policies of the lead Applicant shall be submitted with the proposal and shall prevail.

3.1.7 Company Experience

Applicants should provide details in **Schedule 1j** of a minimum of 3 previous contracts which demonstrate the expertise and experience of the lead Applicant and any proposed partners or sub-contractors in the design, supply and installation of heat mains. References should be made available. In addition, Applicants must supply details of all contracts from the past 5 years for which remedial works have been required within 5 years.

3.18 Declaration

The Applicant (or each partner or member organisation in the case of a consortium bid) must complete the Declaration in **Schedule 2**.

3.2 Technical Submission

The detailed requirements and scope of work for the contract are set out in Section 1.5 and Appendix A.

The Applicant's submission should take into account all relevant factors contained within the information provided within this and supporting documents (see Appendix B), although EGL does not accept any responsibility for the accuracy or completeness of the information. Applicants must submit their bid based on the technical requirements described in Section 1.5, Appendix A and supporting information provided at Appendix B.

The Applicant must complete **Schedule 3**. Evidence should be provided to demonstrate:

- The experience, knowledge and skills of named personnel relevant to EGL's requirements. (EGL can only evaluate personnel, and not the company, in this section.)
- An appropriate programme, methodology and approach, suitable for EGL's requirements as set out in Appendix A and Schedule 3 of this document.
- Supply of goods and materials in line with the specification requested in this schedule and in Appendix A.

3.3 Commercial Submission

The Applicant is required to provide the prices requested in Schedule 4, which will include daily personnel rates, materials and other ancillary prices, and a price summary for evaluation purposes based upon the contract programme provided.

All prices will be quoted in pounds sterling and should exclude VAT. If some prices are only estimated at this stage, please make it clear which these are.

Where applicable, EGL will pay any VAT incurred at the prevailing rate (currently 20%). If the VAT rate changes, EGL will pay any VAT incurred at the new rate. It is the responsibility of the Applicant to check their VAT position with HMRC before submitting a bid.

On award of the tender, the form and content of the contract with the successful bidder is set out in Appendix C, and will include the prices set out in Schedule 4 by the successful bidder.

3.4 Commercially Sensitive Information

Please outline in **Schedule 5** any items that the Lead Organisation or its partners consider to be genuinely Confidential and/or Commercially Sensitive and which should not be disclosed in respect of your Tender.

PART C: TENDER EVALUATION

4 Evaluation Process

This section specifies the criteria to be used to determine the successful applicant and the requirements for the tenderer's qualification to perform the contract.

All applicants must prepare separate technical and commercial bid documents.

Technical and commercial bids must be received by Eden Geothermal Ltd in separate PDF files and hard copy documents, each quoting the tender number in the title.

All bids will be impartially evaluated against the same criteria by an 'Evaluation Panel' on behalf of Eden Geothermal Limited.

The evaluation process will be conducted in a manner that ensures tenders are evaluated fairly to ascertain the most technically and economically advantageous tender. Each tender submission will be evaluated only on the information that is provided by the Applicant. Tenders may be rejected if the information asked for in the ITT and Specification is not given at the time of tendering.

Technical documents and bids will be restricted to the members of the Evaluation Panel, which has full power to make decisions on behalf of Eden Geothermal Limited. The evaluation will be carried out by the Evaluation Panel in distinct sections, with weightings applied where appropriate:

Title	Evaluation Method
Company Information (Schedule 1)	Pass / Fail
Declarations (Schedule 2)	Pass / Fail
Technical Criteria (Schedule 3)	60%
Commercial Criteria (Schedule 4)	40%

4.1 Company Information

The Company Information will be evaluated first and Applicants will be required to pass this stage before their Tenders are evaluated on the basis of their technical and commercial submission.

Ten criteria will be used to evaluate tenders, each being scored on a pass or fail basis. Applicants must pass all criteria to proceed to the remainder of the evaluation. The criteria are:

- a) Company Information – Schedule 1a
- b) Economic and Financial Standing – Schedule 1b
- c) Legal Matters – Schedule 1c
- d) Grounds for Mandatory Exclusion – Schedule 1d
- e) Other Grounds for Exclusion – Schedule 1e
- f) Insurance and Warranties – Schedule 1f
- g) Equality and Diversity – Schedule 1g
- h) Health & Safety – Schedule 1h
- i) Quality Assurance and Environmental Management Systems – Schedule 1i
- j) Company Experience – Schedule 1j

The Company will be evaluated as follows:

Schedules 1a and 1b will be reviewed separately. The review of the Applicant's submission will only proceed to the remainder of Schedule 1 and Schedule 2 where the reviewer deems that the Applicant has passed these sections.

EGL will exclude any Applicant who answers 'Yes' in any of the situations in Schedule 1d, and may also exclude any Applicant who answers 'Yes' in any of the situations in Schedule 1e.

If the Applicant is made up of a Lead Organisation and other organisations who have jointly entered into a consortium, joint venture or other contracting arrangement, each of the organisations must pass all the criteria in order for the Tender to proceed to the remainder of the evaluation.

4.2 Technical Evaluation

Only Applicants that have passed the evaluation of Company Information will have their technical bids evaluated by the Evaluation Panel.

The technical submission should demonstrate the Applicant's expertise, experience and capability to provide the services and supply the materials as set out in Section 1.5, the Scope of Works at Appendix A and in Schedule 3.

For the materials to be supplied, applicants are asked to provide product catalogues; technical specification sheets and certificates as stated in Schedule 3. These should be returned with your technical submission and listed in the table provided in Schedule 3. (You may add more rows if necessary.)

The quality of the technical submission will be scored in accordance with the Scoring Matrix shown below:

5 Excellent	Extremely good demonstration of relevant ability, understanding, experience, skills, resources and quality measures required to provide the services, with full evidence provided to support this.
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4 Good	Above average demonstration of the relevant ability, understanding, experience, skills, resource and quality measures required to provide the services, with a majority of evidence provided to support this.
3 Acceptable	Satisfactory demonstration of the relevant ability, understanding, experience, skills, resources and quality measures required to provide the services, with some evidence to support this.
2 Minor Reservations	Some reservations regarding the relevant ability, understanding, experience, skills, resources or quality measures required to provide the services, with little or no evidence to support this.
1 Major Reservations	Serious reservations regarding the relevant ability, understanding, experience, skills, resources or quality measures required to provide the services, with no evidence to support this.
0 Unacceptable	Non-compliance and/or insufficient information provided to demonstrate that there is the ability, understanding, experience, skills, resource and quality measures required to provide the services.

4.3 Commercial Evaluation

The Commercial Evaluation will be carried out for all submissions that that have been included in the Technical Evaluation (Schedule 3). Commercial submissions from those who failed to pass Schedules 1 and 2 will be destroyed unopened.

The commercial offer will be judged by reference to the tendered total average price. The median price of all the tender prices will be calculated and this will be judged to equal 50% of the available commercial marks. Points will be awarded or deducted from this median score in proportion to the amount that the tender price is lower than or exceeds the median price. The maximum points will be awarded for offers which are less than or equal to half the median, and nil points will be awarded for offers which are more than or equal to double the median value.

Where EGL believes that the tendered prices have been prepared on an inconsistent basis with the other tenders, which creates an unfair advantage to the tenderer's offer, EGL will request that further information is provided to enable the Commercial evaluation to be carried out on a fair basis.

4.4 Total Score

The final 'Total Score' will be calculated by converting the Technical Evaluation score and the Commercial Evaluation score into percentages, which are then combined according to the weighting stated in the table in Section 6. The selected Applicant will be the one with the highest Total Score and this will be the award decision.

The Evaluation Panel will have the authority to send out a Letter of Intent to the proposed awardee, which should state that a contract will be awarded.

4.5 Clarification

During the evaluation process, EGL may need to seek clarification on aspects of an Applicant's submission. If required, EGL will contact the Applicant using the contact details provided. Clarification may require further submission or supplementation or clarification to complete the relevant information or documentation within an appropriate time limit. The purpose of any such clarification will be only to provide EGL with the information required to evaluate and score the submission; it will not be an opportunity for the Applicant to improve or substantially change the information that has already been submitted.

4.6 Award and Notification

Once EGL has completed the evaluation and has identified the successful tenderer(s), EGL will inform the winning Applicant(s) in writing by email of the 'award decision'.

The unsuccessful Applicants will be informed in writing of the fact at the same time after the closing of the evaluation procedure. EGL will offer feedback to every Bidder submitting an unsuccessful proposal.

The contract will then be awarded.

PART D: CONDITIONS

5 Conditions

5.1 Confidentiality and Freedom of Information

This document is proprietary to EGL and the information contained herein is confidential.

EGL confirms that it will keep confidential and will not disclose to any third parties any information obtained from a named Applicant contact, other than to the EU Managing Authority, to its funders, and under EGL's commitment to meeting its responsibilities under the Freedom of Information Act (FOI) 2000 or the Environmental Information Regulations (EIR) 2004. All information submitted to EGL may need to be disclosed in response to a request under these regulations.

The Applicant must treat all information supplied to it by EGL in confidence and must not disclose it to third parties other than to obtain sureties or quotations for submitting its response as part of the tendering process.

The Applicant must identify any parts of its tender submission which it designates as confidential and would not want published; such information may include technical or trade secrets or other confidential information in **Schedule 5**. The Applicant should explain (in broad terms) what harm may result from disclosure if a request is received, and the time period applicable to that sensitivity. However, the Applicant should be aware that, even where information has been categorised as being commercially sensitive, EGL may still be required to disclose it under the FOI or EIR if a request is received.

Without prejudice to EGL's obligation to disclose information in accordance with the FOI or EIR, EGL shall, acting reasonably, at its absolute discretion and notwithstanding any other provision in this Tender or otherwise seek to apply the commercial interests exemption to the information/documents listed in this Schedule.

5.2 Language

The completed tender and all accompanying documents must be in English.

5.3 Applicable Law

Any contract concluded as a result of this ITT will be governed by the law of England & Wales.

5.4 Additional costs

Once the contract has been awarded EGL will not pay any additional costs incurred which are not reflected in the tender submission.

5.5 Costs

Unless otherwise stated in this ITT, all costs associated with taking part in this process remain the Applicant's responsibility. The Applicant will not be entitled to claim from EGL any costs or expenses which may have been incurred in preparing the tender, whether or not the tender is successful. EGL will not return any part of the completed tender.

5.6 Right to cancel or vary the process

EGL reserves the right to cancel or withdraw from the tendering process at any stage. Cancellation of the procurement process (at any-time) under any circumstances will not render Eden Geothermal Ltd liable for any costs or expenses incurred by bidders during the procurement process.

5.7 Inducements

Offering an inducement of any kind in relation to obtaining this or any other contract with EGL will disqualify the Applicant from being considered and may constitute a criminal offence.

5.8 Disclaimer

The issue of the information and the tender does not commit Eden Geothermal Ltd to award any contract pursuant to the bid process or enter into a contractual relationship with any provider of the service. Nothing in the tender or in any other communications made between Eden Geothermal Ltd or its agents and any other party, or any part thereof, shall be taken as constituting a contract, agreement or representation between Eden Geothermal Ltd and any other party (save for a formal award of contract made in writing by or on behalf of Eden Geothermal Ltd).

While the information in this ITT and supporting documents has been prepared in good faith by EGL, it may not be comprehensive, and nor has it been independently verified. Neither EGL nor their advisors, nor their respective directors, officers, members, partners, employees, other staff or agents:

- makes any representation or warranty (express or implied) as to the accuracy, reasonableness or completeness of this ITT; or
- accepts any responsibility for the information contained in the ITT or for the accuracy or completeness of that information; or
- shall be liable for any loss or damage (other than in respect of fraudulent misrepresentation) arising as a result of relying on such information or any subsequent communication.

PART E: SCHEDULES / TENDER SUBMISSION TEMPLATES

Schedule 1a - Company Details. To be completed by each consortium member.

Applicant details	Answer	
Full name of the Applicant completing the ITT		
Trading name (if different)		
Registered company address		
Registered company number		
Name of immediate parent company		
Name of ultimate parent company		
Type of company (please tick relevant boxes)	Public limited company	
	Limited company	
	Limited liability partnership	
	Other partnership	
	Sole trader	
	Other	
	Small or medium enterprise	
Tendering model (please tick relevant box)	Bidding as a Prime Contractor and will deliver 100% of the key contract deliverables	
	Bidding as a Prime Contractor and will use third parties to deliver some of the services	
	Bidding as Prime Contractor but will operate as a Managing Agent and will use third parties to deliver all of the services	
	Other (please specify)	
Contact details		
Name		
Position		
Postal address		
Country		
Phone number		
Email		

Schedule 1b - Economic and Financial Standing

	Enclosed	Not Applicable
(a) Please enclose copies of the business' audited accounts of the past two years, to include: <ul style="list-style-type: none"> • Balance Sheet • Profit and Loss Account • Full notes to the Accounts • Director's Report • Auditor's Report 		
(b) If the accounts submitted for section (b) above are for an accounting year ended more than 10 months ago, please confirm that the business is still trading and provide the latest summary of management accounts.		
	Yes	No
(c) Has there been any event since the last audited accounts that could affect the going concern status of the company?		
(d) Registered VAT number		

Note: EGL will wish to see evidence of Capital and Reserves in excess of 100,000 GBP for this contract. Where the company does not have the required level of reserves, we will accept parent company or personal guarantees to the same value.

Schedule 1c - Legal Matters and Disputes

Has the Applicant, or any of its proposed partners, in the last three years:	Yes/no If yes, please provide details including details of any unresolved disputes, or outstanding claims or litigation.
(a) been prosecuted or had any Court judgements awarded against it?	
(b) had penalties, default notices or liquidated damages awarded against it?	
(c) been in breach of any contract, had a contract terminated or not had a contract renewed due to a failure to meet its obligations?	
(d) been prosecuted for breaking any UK or EU, or equivalent national legislation relating to the environment or Health and Safety?	
(e) had any notice served upon it by an environmental regulator or authority?	
(f) had any finding of unlawful discrimination made against it by any court of law or industrial or employment tribunal?	
(g) been the subject of a formal investigation on grounds of alleged unlawful discrimination?	
(h) been convicted for failure to prevent corruption or bribery under section 7 of the Bribery Act 2010?	
(i) been the subject of any health / safety on-the-job citations, violations or demands from any employees?	

EGL will decide whether an answer 'Yes' to any of the questions listed above and its consequential details constitutes an acceptable risk. Where the Applicant (including the Lead Organisation and all other organisations) answers 'No' to all of the above the Applicant will pass.

Schedule 1d - Grounds for Mandatory Exclusion

Within the past five years, has your organisation (or any member of your proposed consortium, if applicable), Directors or partner or any other person who has powers of representation, decision or control been convicted of any of the following offences? Please indicate your answer by marking 'X' in the relevant box.

	Yes	No
(a) conspiracy within the meaning of section 1 or 1A of the Criminal Law Act 1977 or article 9 or 9A of the Criminal Attempts and Conspiracy (Northern Ireland) Order 1983 where that conspiracy relates to participation in a criminal organisation as defined in Article 2 of Council Framework Decision 2008/841/JHA on the fight against organised crime;		
(b) corruption within the meaning of section 1(2) of the Public Bodies Corrupt Practices Act 1889 or section 1 of the Prevention of Corruption Act 1906;		
(c) the common law offence of bribery;		
(d) bribery within the meaning of sections 1, 2 or 6 of the Bribery Act 2010; or section 113 of the Representation of the People Act 1983;		
(e) any of the following offences, where the offence relates to fraud affecting the European Communities' financial interests as defined by Article 1 of the Convention on the protection of the financial interests of the European Communities: <ul style="list-style-type: none"> (i) the offence of cheating the Revenue; (ii) the offence of conspiracy to defraud; (iii) fraud or theft within the meaning of the Theft Act 1968, the Theft Act (Northern Ireland) 1969, the Theft Act 1978 or the Theft (Northern Ireland) Order 1978; (iv) fraudulent trading within the meaning of section 458 of the Companies Act 1985, article 451 of the Companies (Northern Ireland) Order 1986 or section 993 of the Companies Act 2006; (v) fraudulent evasion within the meaning of section 170 of the Customs and Excise Management Act 1979 or section 72 of the Value Added Tax Act 1994; (vi) an offence in connection with taxation in the European Union within the meaning of section 71 of the Criminal Justice Act 1993; (vii) destroying, defacing or concealing of documents or procuring the execution of a valuable security within the meaning of section 20 of the Theft Act 1968 or section 19 of the Theft Act (Northern Ireland) 1969; (viii) fraud within the meaning of section 2, 3 or 4 of the Fraud Act 2006; or		

	Yes	No
(ix) the possession of articles for use in frauds within the meaning of section 6 of the Fraud Act 2006, or the making, adapting, supplying or offering to supply articles for use in frauds within the meaning of section 7 of that Act;		
(x) disproportionate history of personnel and technical safety violations		
(f) any offence listed in (i) in section 41 of the Counter Terrorism Act 2008; or (ii) in Schedule 2 to that Act where the court has determined that there is a terrorist connection;		
(g) any offence under sections 44 to 46 of the Serious Crime Act 2007 which relates to an offence covered by subparagraph (f);		
(h) money laundering within the meaning of sections 340(11) and 415 of the Proceeds of Crime Act 2002;		
(i) an offence in connection with the proceeds of criminal conduct within the meaning of section 93A, 93B or 93C of the Criminal Justice Act 1988 or article 45, 46 or 47 of the Proceeds of Crime (Northern Ireland) Order 1996;		
(j) an offence under section 4 of the Asylum and Immigration (Treatment of Claimants etc.) Act 2004;		
(k) an offence under section 59A of the Sexual Offences Act 2003;		
(l) an offence under section 71 of the Coroners and Justice Act 2009;		
(m) an offence in connection with the proceeds of drug trafficking within the meaning of section 49, 50 or 51 of the Drug Trafficking Act 1994; or		
(n) any other offence within the meaning of Article 57(1) of the Public Contracts Directive— (i) as defined by the law of any jurisdiction outside England and Wales and Northern Ireland; or (ii) created, after the day on which these Regulations were made, in the law of England and Wales or Northern Ireland.		
(o) Any breach of obligations related to the deduction of tax or social security from any employee or contractor, or to its obligation for payment of any tax or social security contributions that has been established by a judicial or administrative decision having final and binding effect in accordance with the legal provisions of any part of the United Kingdom or the legal provisions of the country in which your organisation is established (if outside the UK).		

Schedule 1e - Other Grounds for Exclusion

Within the past three years, please indicate if any of the following situations have applied, or currently apply, to your organisation (or any member of your proposed consortium, if applicable). Please indicate your answer by marking 'X' in the relevant box.

	Yes	No
(a) your organisation has violated applicable obligations referred to in regulation 56 (2) of the Public Contracts Regulations 2015 in the fields of environmental, social and labour law established by EU law, national law, collective agreements or by the international environmental, social and labour law provisions listed in Annex X to the Public Contracts Directive as amended from time to time;		
(b) your organisation is bankrupt or is the subject of insolvency or winding-up proceedings, where your assets are being administered by a liquidator or by the court, where it is in an arrangement with creditors, where its business activities are suspended or it is in any analogous situation arising from a similar procedure under the laws and regulations of any State;		
(c) your organisation is guilty of grave professional misconduct, which renders its integrity questionable;		
(d) your organisation has entered into agreements with other economic operators aimed at distorting competition;		
(e) your organisation has a Conflict of Interest (CoI) within the meaning of regulation 24 of the Public Contracts Regulations 2015 that cannot be effectively remedied by other, less intrusive, measures; (*)		
(f) the prior involvement of your organisation in the preparation of the procurement procedure has resulted in a distortion of competition, as referred to in regulation 41, that cannot be remedied by other, less intrusive, measures;		
(g) your organisation has shown significant or persistent deficiencies in the performance of a substantive requirement under a prior public contract, a prior contract with a contracting entity, or a prior concession contract, which led to early termination of that prior contract, damages or other comparable sanctions;		
(h) your organisation has negligently provided misleading information that may have a material influence on decisions concerning exclusion, selection or award.		
(i) your organisation has committed an offence under the Modern Slavery Act 2015.		

(*) *Conflicts of Interest: EGL may exclude the Applicant if there is a conflict of interest which cannot be effectively remedied. The concept of a conflict of interest includes any situation where relevant staff members have, directly or indirectly, a financial, economic or other personal interest which might be perceived to compromise their impartiality and independence in the context of the procurement procedure. Where there is any indication that a conflict of interest exists or may arise then it is the*

responsibility of the Applicant to inform EGL, detailing the conflict in a separate appendix. Provided that it has been carried out in a transparent manner, routine pre-market engagement carried out by EGL should not represent a conflict of interest for the Applicant.

If you have answered 'Yes' to any of the above question, please use a separate appendix to provide further details.

Schedule 1f –Insurance and Warranties

Insurance / Warranty	
<p>Employer’s Liability (minimum £5m cover)</p>	<p>Employers' Liability insurance shall cover all employees engaged in the performance of the Contractor's services.</p> <p>Insurer</p> <p>Policy Number</p> <p>Amount of cover £</p> <p>Renewal Date</p>
<p>Public Liability (minimum £5m cover)</p>	<p>General Third Party Liability insurance for any incident or series of incidents covering the operations of the Contractor and its Sub-Contractors in the performance of the Contract.</p> <p>Insurer</p> <p>Policy Number</p> <p>Amount of cover £</p> <p>Renewal Date</p> <p>The policy shall include, but not be limited to, coverage of (i) damage to third party property, (ii) bodily and personal injury (iii) premises and operations, (iv) independent contractors, (v) completed operations, (vi) contractual liability (or their equivalents).</p>
<p>Professional Indemnity (minimum £2m cover)</p>	<p>Insurer</p> <p>Policy Number</p> <p>Amount of cover £</p> <p>Renewal Date</p>
<p>Product Warranties</p>	<p>Seller shall fully warrant the material supplied against defects in material and workmanship: See details in Appendix A 8.2 for Pipe Life, 8.4 for Joints. In the event of a warrantable failure during the specified period, as mutually agreed upon by Buyer and Seller, after inspection, Seller shall repair or replace the suspect material or its component at its sole expense. Repaired / replaced material or its component must be fully warranted for a further 12 months or for the original end date which ever is the greater.</p>
<p>Goods insurance</p>	<p>The Seller is to be responsible for ensuring that the material is delivered, received and unloaded in good working order, and is fit for purpose. Any Goods in Transit insurance is to be at the Seller’s own expense.</p>

Schedule 1g - Equality and Diversity

The Lead Organisation and all other organisations must confirm that their organisation complies with its legal obligations under European law relating to the following:

Item	Confirm Yes / No
a) Race	
b) Sexual Orientation	
c) Gender Reassignment	
d) Disability	
e) Age	
f) Religion or Belief	
g) Sex	
h) Marriage & Civil Partnership	
i) Pregnancy & Maternity	

In order to pass this schedule, all organisations must answer 'yes' to all items.

Schedule 1h - Health and Safety

This section should be filled out by the lead Applicant on behalf of partners/other consortium members. The lead Applicant's policies should be provided and shall prevail for all partners/consortium members.

	Enclosed	Not Applicable
(a) State the total number of Employees		
(b) Please enclose a signed copy of your Health and Safety Policy indicating when it was last reviewed and by whose authority it was published.		
	None	Enclosed
(c) Please provide evidence of all RIDDOR (the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1999) reportable events for the last three years. This should include a system for reviewing all incidents, and recording the action taken as a result.		
(d) Please enclose details of prosecutions or notices served on your company under the Health and Safety at Work Act 1974, or other health and safety legislation, in the last five years and the action which you have taken to remedy matters subject to enforcement action.		

Schedule 1i - Quality Assurance and Environmental Management

This section should be filled out by each partner or member of proposed consortium, where applicable.

(a) Name of Director, Partner or persons responsible for the implementation of the company's Environmental and Quality Assurance Policies.		
	Enclosed	Not Applicable
(b) Have you acquired any recognised Quality Assurance accreditation relevant to this contract? If yes, please provide details e.g. SSIP accreditation; ISO45001. If no accreditation is held, please attach an outline of your Quality Assurance Policy or, if you have no policy, give reasons why.		
(c) Please enclose evidence / valid copy certificates to demonstrate the materials to be supplied for this contract meet the following required standards: EN489, Euroheat & Power Cert EHP/001, EN 15632, CIBSE CoP ADE 2015, Technical Guide for District Heating (BRE 2014)		
(d) Please provide details of any Environmental Management System certification that your company holds, e.g. ISO 14001 or equivalent standard which is pending. Please include a copy of any certificate. If no accreditation is held, please attach an outline of your Environmental Policy or, if you have no policy, give reasons why.		

Schedule 1j – Company Experience and Performance

Please provide details of at least 3 contracts, in any combination from either the public or private sector, and from within the last 5 years, that are relevant to EGL’s requirement for design, supply and installation of a heat main. Please supply these as a separate document labelled Schedule 1j.

A named contact should be provided for each contract listed. He or she should be able to provide written evidence / a reference to confirm the accuracy of the information you provide.

Consortium bids should provide relevant examples of where the consortium has delivered on similar requirements. If this is not possible (e.g. the consortium is newly formed or a Special Purpose Vehicle is to be created for this contract) then separate examples should be provided between the principal member(s) of the proposed consortium or Special Purpose Vehicle).

Where the Supplier is a Special Purpose Vehicle, or a managing agent not intending to be the main provider of the supplies or services, the information requested should be provided in respect of the main intended provider(s) or sub-contractor(s) who will deliver the contract.

Relevant experience and contract examples will be evaluated on a 5 level score as in Part C, Tender Evaluation, 4.2 Technical Evaluation – Technical Score Weighting. A score of 3 is required to pass Schedule 1j and move to the full evaluation stage.

The following details should be provided for each contract:

Name of customer organisation	
Point of contact in customer organisation	
Position in the organisation	
E-mail address	
Detailed description and technical specification of contract and as much verifiable technical performance data as available.	
Contract start date	
Contract completion date	
Estimated Contract Value	

If you cannot provide at least three contract examples, please provide an explanation for this. E.g. your organisation is a new start-up, or you have provided services in the past but not under a contract.

In addition to the above, please provide details of all contracts to design and / or supply and / or install a heat main carried out within the past 5 years for which remedial works or actions have been required within a period of 5 years, or which have been the subject of any complaint or dispute within a period of 5 years.

If you are a consortium or a Special Purpose Vehicle, details for contracts carried out by all members of the consortium or SPV should be included. If you are a managing agent not intending to be the main provider of the supplies or services, the information requested should be provided in respect of the main intended provider(s) or sub-contractor(s) who will deliver the contract.

The following details should be provided for each contract:

Name of customer organisation	
Point of contact in customer organisation	
Position in the organisation	
E-mail address	
Description of the contract	
Information about the fault / issue / complaint	
Detail of actions taken to remedy issues, and the outcome of those actions	

Subcontracting

Where you intend to sub-contract a proportion of the contract, please demonstrate how you have previously maintained healthy supply chains with your sub-contractor(s).

Evidence should include, but is not limited to, details of your supply chain management tracking systems to ensure performance of the contract and including prompt payment or membership of the UK Prompt Payment Code (or equivalent schemes in other countries).

Submission of Supporting Information

Please clearly label/reference any supporting information submitted in conjunction with Schedule 1j and list all documents using the format below. You may add additional rows if necessary.

Schedule 1j – Supporting Information	
Document Reference	Relevance/reason for inclusion

Schedule 2 - Declarations

I/We understand that the information provided in this document and any supporting information provided by us will be relied upon and taken to be true and accurate. Should it subsequently be determined that any information supplied by us was inaccurate, I/we understand and accept that Eden Geothermal Limited reserves the right to exclude our offer to supply (if still under evaluation) or if the Contract has been awarded and the information that was inaccurately supplied had a significant influence on the award, that Eden Geothermal Limited shall be at liberty to terminate the Contract.

I/We understand that Eden Geothermal Limited is not bound to accept the lowest price or any tender that may be received.

Name of organisation	
Name of person applying on behalf of organisation	
Signature	
Title / position of person	
Date	
Contact telephone	
Contact e-mail	
Address and post code	
Registered office if different from above	

Schedule 3 – Technical Submission (60% of total marks)

Evaluation Criteria

There are 4 technical evaluation criteria:

- Personnel
- Programme
- Methodology and approach
- Technical specification of goods and materials

Each category will be evaluated in line with the scoring criteria set out in Section 4.2.

Category 1: Personnel (15% of total marks)

Please provide details of a maximum of six named individuals with job titles and, for each, a detailed outline of qualifications and background/expertise/experience relevant to this contract, either in their current role or prior.

Each person's profile should be no more than 2 sides of A4 in length, but should provide enough detail to enable us to evaluate their experience. Where possible/relevant, you may wish to highlight their direct or transferable experience in relation to the following:

- Design /installation projects of a similar scale (£1.5m+)

The individuals proposed should be shown in an organogram, to be submitted with this Schedule, and should be dedicated to this contract if you are successful.

Where subcontractors will be undertaking a significant proportion of the work, you may wish to include key subcontractor personnel.

As part of the six profiles, we expect to receive information for the following personnel:

- Principal Designer
- Designer
- Site Manager
- Project/Contract Manager

Important note: ERDF procurement regulations prevent us from scoring 'Company Experience' within the technical evaluation. With this in mind, we ask tenderers to pay particular attention to the 'Personnel' category of their technical submission (Schedule 3).

Category 2: Programme (10% of total marks)

Please supply the following:

- Gantt chart (PDF format) showing start dates, key tasks and milestones, the timescale and order of component works to be undertaken, interdependencies, contingencies, terminal float, critical path, finish date.
- Statement confirming your ability to meet the required completion date of 30th April 2022.
- Full details of key resource availability in respect of your programme.

Category 3: Methodology and Approach (15% of total marks)

Please supply the following:

- Outline of proposed methodology for both design and installation stages. Your outline should demonstrate your understanding of EGL's requirements, and provide sufficient detail to show how you will meet those requirements. It should demonstrate how buildability is encompassed by your approach. (Max 3 pages of A4.)
- Outline of the personnel, plant and equipment to be provided.
- Details of subcontracting arrangements/key subcontractors.
- Where possible and appropriate, identification of opportunities for cost savings, for example through innovative design.
- Covid-19 contingency plan.

If relevant/appropriate, you may provide additional information as an appendix to this category. For example, a statement in relation to sustainability measures, if this is relevant to the approach you have outlined, or other measures which you would like to highlight.

Category 4: Materials and Installation Specification (20% of total marks)

Please note the following general materials and installation specifications and standards which will apply to this contract:

- EN489, Euroheat & Power Cert EHP/001
- EN 15632
- CIBSE CoP ADE 2015
- Technical Guide for District Heating (BRE 2014)

Please use the table below to provide the detailed description and technical specification for your materials / products and / or list other documents submitted, e.g. product catalogues; technical specification sheets/drawings; independent test certificates and/or reports. You should number each document and list the document title and type, and clearly link it to an item, or range of items, in this table. You may add more rows to the table if necessary. Where you propose an 'equivalent' material, please ensure you provide a detailed explanation / specification together with evidence of 'equivalence'.

Items to be supplied – based on Logstor Steel District Heating Pipe or equivalent				
Item no	Pipe media	Insulation	Description	Tick to confirm or insert detail of alternative / equivalent proposed
1	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN150/6" Series 2 Single Pipe (12m length)	
2	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN150/6" Series 2 Single Pipe with Diffusion barrier (12m length)	
3	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN200/8" Series 2 Single Pipe (12m length)	
4	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN200/8" Series 2 Single Pipe with Diffusion barrier (12m length)	
5	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN150/6" Series 3 Single Pipe (12m length)	
6	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN150/6" Series 3 Single Pipe with Diffusion barrier (12m length)	
7	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN200/8" Series 3 Single Pipe (12m length)	
8	Steel P325 GH	Polyurethane (PUR) with Diffusion Barrier	DN200/8" Series 3 Single Pipe with Diffusion barrier (12m length)	

Items to be supplied – Warranties		
Item no	Description	Tick to confirm or insert detail of alternative / equivalent proposed
1	Pipework & Insulation (minimum 5 years)	
2	Fittings (minimum 5 years)	
3	Reinsulated components (minimum 5 years)	
4	Welds (minimum 5 years)	

Items to be supplied – Warranties		
Item no	Description	Tick to confirm or insert detail of alternative / equivalent proposed
5	Casing Joints (minimum 5 years)	

Heat Main supplied – complies with the following standards/Guidance		
Item no	Description	Tick to confirm or insert detail of alternative / equivalent proposed
1	Euroheat & Power Cert	
2	CIBSE CoP ADE 2015	
3	Technical Guide for District Heating (BRE 2014)	
4	EN253 Single pipes	
5	EN15698 Twin pipes	
6	EN448 Fittings	
7	EN489 Joints	
8	EN488 Valves	
9	EN13941 Design and installation	
10	EN14419 Surveillance system	

Submission of Supporting Information

Please clearly label/reference any supporting information submitted in conjunction with Schedule 3 and list all documents using the table below. In addition to the document reference/name, you should clearly mark the category under which it is to be considered (1 – Personnel; 2 – Programme; 3 – Methodolgy and Approach; 4 – Materials and Installation Specification) and, if appropriate/ necessary, provide a brief explanation of why you have included it. You may add more rows if necessary.

Document Reference	Evaluation Category	Relevance/reason for inclusion

Document Reference	Evaluation Category	Relevance/reason for inclusion

Declaration

We confirm that:

- We have inspected this Tender Document and accompanying information relating to the Eden Geothermal Ltd Tender and hereby offer to complete the works, to the standard and specifications set out in Appendix A of this ITT document 'Scope of Works'.
- The Technical Submission is accurate to the best of our knowledge.

Name of Organisation	
Name of Person Signing	
Capacity in which Signed	
Signature	
Date	

Schedule 4 - Commercial Submission

(Please note this Schedule is to be returned in a separate document).

As set out in the Scope of Works (Appendix A), the successful tenderer will supply one of 4 options. The selection of the suitable option is not possible ahead of the evaluation of the commercial submissions, so the bidders are asked to provide prices for the 4 separate options and EGL will evaluate the submissions based upon the mean average of the 4 prices.

Price for Evaluation

Summary of Total Prices (extracted from orange boxes below)	Total Price £ (ex VAT)
Option 1 – DN150/6" Single Steel Pipe Series 2 Insulation	£
Option 2 – DN200/8" Single Steel Pipe Series 2 Insulation	£
Option 3 – DN150/6" Duplex Steel Pipe Series 3 Insulation	£
Option 4 – DN200/8" Duplex Steel Pipe Series 3 Insulation	£
Average of above Total Prices for Tender Evaluation	£

Price Breakdown ('The Prices')

In order to ensure consistency in the tender evaluation, please provide a detailed breakdown of each Total Price above using to the headings below. You may add further lines if required.

Option 1 - DN150/6" Single Steel Pipe, Series 2 Insulation with Diffusion Barrier	Tendered Price £ (ex VAT)
Preliminary and General	
Detailed Design	
Design Fees and Statutory Fees	
Civils works	
200mm LV Electrical Duct	
90mm Water Main (Grey Water)	
100mm Comms Ducts (2 off)	
Heat Main DN150/6"	
Offsite Spoil/Waste removal	
Total of the above costs	
Allowance for Risk/Contingency (total)	
Total Price including Allowance for risk / contingency	£

Option 2 – DN200/8” Single Steel Pipe, Series 2 Insulation with Diffusion Barrier	Tendered Price £ (ex VAT)
Preliminary and General	
Detailed Design	
Design Fees and Statutory Fees	
Civils works	
200mm LV Electrical Duct	
90mm Water Main (Grey Water)	
100mm Comms Ducts (2 off)	
Heat Main DN200/8”	
Offsite Spoil/Waste removal	
Total of the above costs	
Allowance for Risk/Contingency (total)	
Total Price including Allowance for risk / contingency	£

Option 3 – DN150/6” Duplex Steel Pipe, Series 3 Insulation with Diffusion Barrier	Tendered Price £ (ex VAT)
Preliminary and General	
Detailed Design	
Design Fees and Statutory Fees	
Civils works	
200mm LV Electrical Duct	
90mm Water Main (Grey Water)	
100mm Comms Ducts (2 off)	
Heat Main DN150/6”	
Offsite Spoil/Waste removal	
Total of the above costs	
Allowance for Risk/Contingency (total)	
Total Price including Allowance for risk / contingency	£

Option 4 – DN200/8” Duplex Steel Pipe, Series 3 Insulation with Diffusion Barrier	Tendered Price £ (ex VAT)
Preliminary and General	
Detailed Design	
Design Fees and Statutory Fees	
Civils works	
200mm LV Electrical Duct	
90mm Water Main (Grey Water)	
100mm Comms Ducts (2 off)	
Heat Main DN200/8”	
Offsite Spoil/Waste removal	
Total of the above costs	
Allowance for Risk/Contingency (total)	
Total Price including Allowance for risk / contingency	£

Allowances / Disbursements

The above fees shall include allowances for the general obligations, management obligations and project requirements as defined by section 1.5 of this document and the Scope of Works at Appendix A. The above rates shall include for all reasonable disbursements but should exclude VAT.

Fee Percentage

The Fee includes all costs the Contractor may incur that are not included in Defined Cost (NEC ECSC 11.2(6)), which may include its overheads, profit, insurance premiums, bank charges, and any allowance for its risks. The Fee is calculated by applying the fee percentage to the Defined Cost (NEC ECSC clause 11.2(8)).	%
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Personnel

Please set out the personnel rates associated with the contract (including reasonable disbursements but excluding VAT). These rates should include personnel listed in Schedule 3:

Staff Designation		Rate £/day
Company	Member of Staff and Grade	

Equipment

The <i>published list</i> of equipment (as per the Civil Engineering Contractors Association (CEA) Published List) is:	
The <i>percentage for adjustment</i> for equipment (state plus or minus)	%

Risk Allocation

With respect to unchartered services the *Employer* will own the risk of any costs associated with changes versus the tender route directly attributed to unchartered services. With regards chartered services which deviate from the information specified within the contract. The Contractor will take / price the risk for up to five instances of service avoidance where it is possible to overcome the obstruction utilising the current route with an increased excavation depth of up to 0.5m over the trench section details in the tender for up to 10m in trench length, including all additional materials, prelims and welds. If five instances have occurred but the cumulative meterage is less than 50m the residual amount would be utilised towards a 6th event, should it arise, and so on until the 50m has been fully utilised if its needed. Any such instance in which The Contractor believes they are accommodating a deviation for service avoidance must be formally

communicated to the client. When the cumulative 50m have been exceeded, any requirement greater than this will be dealt with as per the compensation event provisions detailed in the contract.

Please complete the Risk Allocation table below. You should set out any risks you have identified in relation to this contract, and how you propose these risks being allocated.

If you wish, you may submit your own more detailed Risk Register in lieu of this table, but this should contain as a minimum the information set out below.

Please provide costs for any works required to manage any unknown services found.

ITT Reference	Description of Risk	Risk Rating	Allowance (time and/or cost)	Owner – EGL or Contractor?

Declaration

We confirm that we have inspected this Tender Document EGL-ITT-C067 and the accompanying information relating to it and hereby offer to complete the Works as set out in Section 1.5 of this document and the Scope of Works (Appendix A) to your entire satisfaction for the Total Prices set out in Schedule 4 above.

We accept the contract conditions for this contract and this tender remains open for acceptance for 90 days.

We understand that you do not bind yourselves to accept the lowest or any tender.

Name of organisation	
Name of person signing	
Capacity in which signed	
Signature	
Date	

Schedule 5 - Commercially Sensitive Information

Eden Geothermal Limited may be obliged to disclose information in or relating to this Tender following a request for information under the FOIA or EIR. Please outline in the table below items that you consider to be genuinely Confidential and/or Commercially Sensitive which should not be disclosed in respect of your Tender (see Section 3.4)

Information	Reference / page	Reason for non-disclosure	Duration of confidentiality

This schedule will be kept with the Tender documents for consideration should a request for information under the Freedom of Information Act 2000 or Environmental Information Regulations 2004 be received. This document will be destroyed in line with the retention and destruction policy of Eden Geothermal Limited.

APPENDICES

APPENDIX A – Detailed Scope of Works

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APPENDIX A – Scope of Works

1 Summary, Introduction and Framework

1.1 Summary of requirements

1.1.1 In summary, EGL requires the design, supply and installation of a heat main to supply heat from Eden Geothermal's first geothermal well to the Energy Centre at the Eden Project in Cornwall.

In addition to this Scope of Works, and section 1.5 of this document 'Outline of Requirements', please see and documents at Appendix B for route information and other technical parameters for design and installation of the heat main.

1.1.2 The successful tenderer will design, supply, install and provide commissioning support for the heat main based on one of the following options (chosen option to be determined in conjunction with the client during the design phase):

- Option 1: DN150/6" Single Steel Pipe, Series 2 Insulation with Diffusion Barrier.
- Option 2: DN200/8" Single Steel Pipe, Series 2 Insulation with Diffusion Barrier.
- Option 3: DN150/6" Duplex Steel Pipe, Series 3 Insulation with Diffusion Barrier.
- Option 4: DN200/8" Duplex Steel Pipe, Series 3 Insulation with Diffusion Barrier.

1.1.3 The following general materials and installation specifications and standards (see also Section 8) will apply to (but are not limited by) this contract:

- Euroheat & Power Cert
- CIBSE CoP CP1 2020
- Technical Guide for District Heating (BRE 2014)

Materials specifications will be based on Logstor Steel District Heating Pipe or equivalent. (See Appendix B)

1.1.4 Assuming a contract award date of 1st November 2021, the system should be completed and commissioned by the end of April 2022.

1.2 Definitions

1.2.1 'Others' are defined as other organisations that will have an influence over the detailed design approval process. These bodies are:

- Eden Project Ltd

1.2.2 'The Employer' is Eden Geothermal Ltd, also known as 'the Client'.

1.3 The Site

1.3.1 Background information about the Site is available in the documents listed at Appendix B and downloadable from the Eden Geothermal website.

1.4 Employer's Requirements

1.4.1 The *Employer's* Design information is contained within Section 1.5, Appendix A and documents in Appendix B and provides the requirements for the general layout and design of the scheme.

1.4.2 The *Contractor* can choose to adopt the *Employer's* Reference Design (Pipe route) information, either in whole or in part, whilst recognising that design liability for any of the design adopted shall reside with the *Contractor*. The *Employer* shall not be liable for any errors, omissions or inconsistencies contained in the *Employer's* Reference Design information. If the *Contractor* wishes to incorporate any part of the *Employer's* Reference Design into its design proposals, it must satisfy itself that the *Employer's* Reference Design does meet or exceed the requirements of the remainder of the Works Information. The *Contractor* shall develop and modify the design as necessary or appropriate to comply with the Works Information.

1.4.3 The *Contractor* shall refer to Cornwall Council standard details "Design and Construction Guidance" available online in providing the assets necessary to complete the works as proposed in this *Employers* Requirements document. Where no relevant detail is provided, The *Contractor* shall refer to Manual of Contract Documents for Highways Works (MCHW) Volumes 1, 2 and 3 as found online.

1.5 Design Data

1.5.1 The *Contractor* shall submit to the *Employer* for acceptance the Design Data for providing the works. The *Contractor* shall obtain approval of its design from Others where necessary. The approvals by Others must be agreed prior to submitting to the *Employer* for acceptance.

1.5.2 "Design Data" means all specifications, plans, drawings, graphs, sketches, models and other documents prepared or to be prepared by or on behalf of the *Contractor* relating to the design, construction, and aftercare of the works.

1.5.3 Design Data to be submitted shall be provided in two hard copies to the *Employer* and also in electronic media in a form to be agreed with the *Employer* such as to enable the *Employer* to carry out his obligations without delaying Completion of the works and shall include, without limitation, the following:

- Design Quality Plan; including Designer Risk Assessments, design Elimination Record and Design for Maintenance evaluations. This is to be provided within one month after the start-up meeting.
- The programme for design and construction of the works at intervals specified;

- All relevant drawings, schedules, specifications and completed relevant Numbered Appendices necessary to demonstrate compliance with the Works Information and to enable the works to be constructed, in accordance with the Design and Construction Quality Plans;
- Traffic management Plan stating how traffic flow is maintained on site
- Construction Quality Plan 10 days prior to start on site;
- Risk Assessments and Method statements for all activities (including drilling, grouting, hole surveying etc.);
- Pre-Construction Information (PCI);
- Geotechnical and Existing Below Ground Services Baseline Report to clarify ground related risk between *Employer* and *Contractor*
- Construction Phase Health and Safety Plan;
- Construction Environmental Management Plan (inc. Noise and Vibration Plan);
- Temporary Works Register;
- Site Waste Management Plan;
- Pollution Control and Contingency Plan;
- Material Management Plan (MMP);
- Health and Safety File;
- As-built records;
- Operation and Maintenance Manuals.
- Training records

1.6 The *Contractor's* Submission Procedure

1.6.1 No Design Data shall be submitted to the *Employer*

- without evidence of approval from Others whose interests are affected by the *Contractor's* proposals.

1.7 Acceptance of Proposals

1.7.1 The *Employer* shall return one copy of each submission to the *Contractor* endorsed as appropriate:

- "accepted" means that the *Contractor* may proceed with the relevant work;
- "accepted with comments" means that the *Contractor* shall amend the design or other information accompanying the certificate to take account of the comments. The *Contractor* may then proceed with the relevant work without the recertification; and
- "returned unaccepted with comments" means that the *Employer* has not accepted the design or other information. The *Contractor* shall then revise the submission and resubmit to the *Employer* with the relevant Certificate.

1.7.2 Design or other information submitted with a submission which has been endorsed by the *Employer* as "accepted" shall be adhered to under the contract terms and conditions. Design or other information submitted with a submission which has been endorsed by the *Employer* as "accepted with comments" shall be amended and then adhered to except where varied under the contract terms and conditions.

1.7.3 If the *Employer* fails to return any Certificate duly endorsed within the period for reply then the Certificate shall be deemed to be returned marked "accepted".

2 Preliminaries

2.1 Extent of the Site.

2.1.1 General

The extent of the Site is shown in Drawings Heat Main Detail Sht 1&2 listed in Appendix B. Notwithstanding the defined site limits the *Contractor* shall be responsible for those locations remote from the site where permanent or temporary signing shall be necessary (as required in the Contract or because it forms parts of traffic management in advance of the works, temporary works or diversions of traffic proposed by the *Contractor*).

Under planning restrictions, site working hours are limited to:

Monday to Friday 0700 - 1830

Saturday 0700 - 1300

Sunday No Working

The *Contractor* must ensure good traffic flow is maintained on the Eden access roads at all times unless proposals are agreed with the *Employer*.

The *Contractor* shall not make any use of the Site for purposes other than the construction of the project without specific authorisation of the *Employer*.

The *Contractor* will have the use of EGL's current temporary offices, welfare units, storage units, toilets and wash facilities required by the Contractor and their sub-contractors during the site construction works. There is also space to add Bunkerbins if required (supplied by Contractor).

The *Contractor* shall be responsible for providing all plant and equipment required during this period for the purpose of the construction works, including lighting and generators.

The *Contractor* shall be responsible for all waste disposal throughout the construction works. No principal offices, mobile site offices, messes, stores or workshops shall be sited within the permitted road or other highway boundaries.

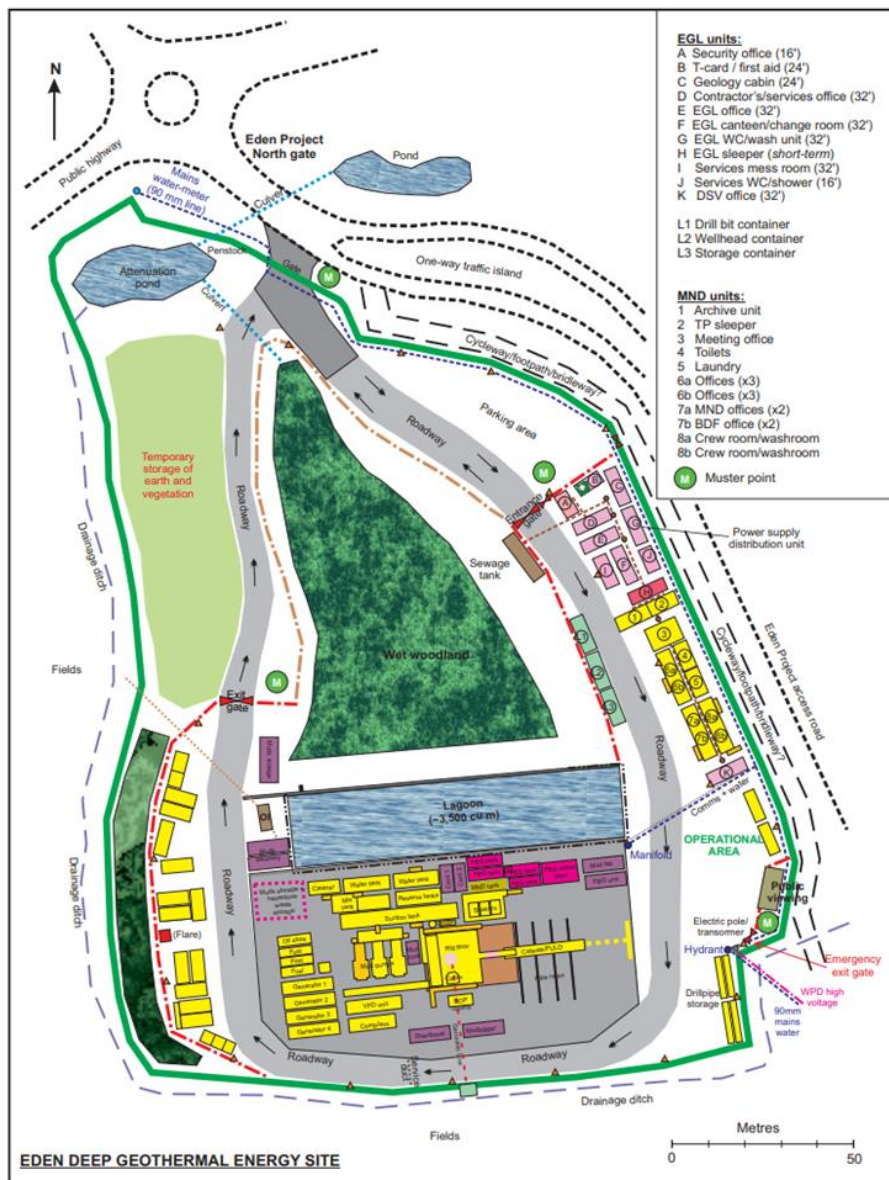
All areas outside the limits of the Site which are used or occupied by the *Contractor* shall be restored to their original condition on completion of the Works. Such restoration shall include any necessary reinstatement, re-soiling, seeding or planting to the acceptance of the landowner and EGL.

No area of the road and local roads shall be used for parking of vehicles used by or on behalf of the *Contractor*. The *Contractor* shall not obstruct any lane, road junction vehicular or cyclist / pedestrian access which has not been closed to traffic.

The *Contractor* shall inform the *Employer* of the name(s) and telephone number(s) of a responsible person(s) who can be contacted at any time in an emergency.

The *Contractor*, his agents, servants or workmen shall not erect nor allow his sub-*Contractors* their agents, servants or workmen to erect within the Site any advertisement without the prior written consent of the *Employer*. Should any advertisement be erected without such consent of the *Employer*, he/she shall have power to order in writing the *Contractor* to remove it forthwith. If the *Contractor* shall fail to comply with such order within 24 hours of its delivery to him, the *Employer* shall be entitled to employ and pay other persons to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the *Contractor* and shall be recoverable from him/her by the *Employer* or may be deducted by the *Employer* from any monies due or which become due to the *Contractor*.

EGL Site Layout



All advertisements, consented under the previous sub-clause, within the Site shall be removed not later than the completion date of the works, unless the *Employer* consents in writing any advertisement to remain for a further period.

The *Contractor*, or any agent or servant in his employment shall not give any information concerning the Works for publication in the press or radio, television or cinema screen or elsewhere without the written approval of the *Employer*.

The *Contractor* shall prevent trespass by his own or his *Sub-Contractor's* employees onto any property adjoining the Site.

The *Contractor* shall ensure that no steps, ladders or other plant are left accessible so as to permit unauthorised access to the Works.

The *Contractor* shall produce a waste minimisation plan so as to maintain the Site in a clean and tidy state by removing rubbish, spoil and other debris arising from the Works to a tip off Site. All materials and plant for the Works shall be stored neatly. On completion of the works, the *Contractor* shall remove all surplus materials and leave the Site in a clean and tidy condition.

The programming of any remedial works required after the actual Completion Date for each section of the works shall be agreed with the *Employer* before commencement of those works.

2.2 Control of Noise, Vibration and Dust on Construction Sites

The *Contractor* shall produce and submit the Noise, Vibration and Dust Management Plan to the *Employer* for approval. The *Contractor* shall refer to the relevant mitigation measures included in Cornwall Council Noise and Dust Control On Construction and Demolition Sites when developing the Noise and Dust Management Plan.

The Noise and Vibration Control Management Plan shall adhere to best practice and mitigation measures on site that would adhere to the codes of practice for construction given in British Standard BS 5228-1:2009 and the guidance given therein minimising noise emissions from the Site.

2.2.1 Noise

The *Contractor* must follow for the principle of "Best Practicable Means" (BPM), as referenced in COPA1974 / BS 5228, to be used during the construction of the proposed scheme in order to minimise levels of construction noise. This may include the use of temporary noise barriers and acoustic enclosures, together with silenced plant and equipment that is maintained and in good working order.

Noise limits and other specified parameters, including working hours, shall be agreed as part of the Noise and Vibration Management Plan. These limits shall be complied with in relation to the method of working, type of plant to be used and noise mitigation measures for the work site.

Contractor's compliance with the Noise and Vibration Management Plan does not preclude the Local Authority from pursuing formal action under section 82 of the Environmental Protection Act (1990) or Section 60 of the Control of Pollution Act 1974 should circumstances require.

2.2.2 Vibration

The *Contractor* shall adhere to the contents of the Noise and Vibration Management Plan. Specifically, nearby residents and users of buildings within the vicinity shall, as far as practicable, be protected from vibration. The Vibration Dose Values (VDV) shall not exceed those specified in BS 6472: 1992 Guide to evaluation of human exposure to vibration in buildings (1 Hz to 80 Hz) which will result in a "low probability of adverse comment". To protect buildings from physical damage, peak particle velocity levels shall not exceed 5 mm/sec. The peak particle velocity levels at particularly sensitive buildings shall not exceed 3 mm / sec.

2.3 Progress Photographs

2.3.1 General

The *Contractor* shall arrange for a photographic record of the works to be kept. Photographs shall be digital.

Additional pre-start photographs shall be taken as required to include photographs of adjacent buildings and other features, including vegetation and buildings that may be subject to damage caused by the works. Such photographs shall be of a detail and frequency to establish accurately the condition of such items prior to the start of works.

Repeat ground level photographs shall be taken, as close as practicably possible in the same location, at the same height and on the same bearing.

The copyright of all photographs shall be vested with the *Employer* in accordance with the contract and shall be delivered to the *Employer* within one week of being taken.

3 Site Works

3.1 General

3.1.1 Soil movement Protocols to be agreed with The Eden Project, so as that areas with invasive plant species are not spread

3.1.2 Unless stated otherwise, the *Employer* does not want to retain any materials arising from site works.

3.1.3 Where possible, materials removed by site works by the *Contractor* shall be reused within the limits of the site.

3.1.5 The burning of materials on site shall not be permitted.

3.1.6 The *Contractor's* proposals for site works shall include details in relation to areas of vegetation and woodland to be retained and protected, and the means of protection.

3.1.7 Special care shall be taken to ensure that all trees and shrubs not affected by the works are not harmed in any way. Should any trees, shrubs and other planting features which are intended to be preserved be killed, removed or damaged by the *Contractor* during the course of the works, they shall be replaced by the *Contractor* with five plants for each one damaged of the same species and equal in size to those killed, removed or damaged. Such work shall be carried out at the *Contractor's* own expense including any penalties levied.

3.1.8 Where an existing fence, hedge or wall is cut the severance shall be made good unless otherwise stated either by the continuation of the fence, hedge or wall in a different direction, or by its termination. In the case of a strained wire or chain-link fence a straining post shall be installed and the fence re-strained.

4 Traffic Management

4.1 Traffic Management

All traffic management must comply with The Safety at Street Works and Road Works – Code of practice.

5 Service Ducts

5.1 Service Ducts

Service ducts shall be of a type approved by the relevant Statutory Authority. Minimum cover to all ducts to be 750mm under carriageway and 450mm in verge; trench and bedding detail shall generally be Type Z under carriageway and Type S under verge as shown on drawing F1 of the Highway Construction Details unless shown otherwise. Services laid above ground should be protected as required.

5.4.2 Nesting patterns of multiple ducts shall be in accordance with drawing MCX 0814 of HCD.

5.4.3 Polyethylene marker tape 150mm wide, gauge 0.10mm shall be installed 150mm above the topmost duct along the whole length:

Colour	Inscription	Use
Yellow with black and red legend	Road Duct	Road lighting cable and various. See SHW Clause 1511
Yellow with black and red legend	Electricity	Mains
Blue	Water	Mains
Green	BT Cables	Ductwork

5.4.4 The legend shall be continuous along the tape. Additional tapes shall be laid at max 450mm centres when wide trenches are encountered.

5.4.5 Coloured PVC ducts are to be used for relevant service only as set out below. The inscription shall be continuous along its length.

Colour	Inscription	Use
Blue	Water	Water services
Grey	BT	BT
Black	Electricity	Lighting and WPD
Orange	Traffic signals	Traffic signals and site security
Yellow	Gas	Gas
Purple	Communication data	Communication data

5.4.6 Draw ropes shall be pigmented, stranded polypropylene to SHW sub-Clause 501.8 with a metallic conductor to facilitate detection. The conductor may be separate from the standard draw wire.

6 Other Services/Ducts

6.1 Electrical

6.1.1 The *Contractor* shall install a 200mm LV Service Duct from the edge of the Geothermal Site to both the Energy Centre and Nursery Plant room.

6.2 Grey Water

6.2.1 The Contractor shall install a 90mm Blue PE100 SDR11 Water pipe (Grey Water) from the edge of the Geothermal site to a location opposite to the Green Build Hub

6.3 Comms

6.3.1 The Contractor shall install two 100mm Comms ducts to both the Energy Centre and Nursery Plant room.

7 Pavements

7.1 Access Roads, parking and lay-down areas

7.1.1 The *Contractor's* proposals shall be submitted for acceptance together with associated drawings and incorporating the specific requirements stated hereafter.

7.1.2 The *Contractor's* proposals for areas of roads that require reinstatement shall comply with the Specification for the Reinstatement of Openings in Highways Fourth edition.

7.1.3 The *Employer* shall be responsible for all liaison and planning regarding abnormal vehicle movements outside the site boundary, except within the immediate vicinity of the site entrance, where the *Contractor* shall ensure that their site arrangement is suitable for entry of the largest prescribed vehicle.

8 Heat Main

The *Contractor's* proposals shall be submitted based on the proposed route set out in Appendix B Drawings: Heat Main Detail Sheets 1-2.

8.1 General requirements

Pre-Insulated pipe, fittings and joints must at least be according to the following standards:

- EN253 Pipes system
- EN15698 Twin pipes
- EN448 Fittings
- EN488 Valves
- EN489 Joints
- EN13941 Design and installation
- EN14419 Surveillance system

Production must take place at production facility that are certified according to Euroheat & Power certification.

The contractor is to take responsibility for the expansion and contraction design and install the calculated foam pads to accommodate the expansion.

NDT testing method is to be Phased Array, rather than ultrasonic which due to the thin wall steel of the pipes can miss flaws.

The contractor shall provide O&M manuals for all equipment.

All welders must meet hold the welding certifications detailed in EN13941.

No shrink joints will be permitted.

8.2 Pipework

Pipes (single and twin pipes) must be supplied with a diffusion barrier up to and including casing pipe dimension $\varnothing 315$ PE. This diffusion barrier must ensure that there are no ageing of the insulation properties of the foam caused by gas diffusion.

The contractor shall provide a warranty for pipe life of minimum 5 years.

8.3 Temperature, Pressures and Flow

The minimum temperature required at Eden's Energy Centre is 85°C all Heat loss calculations must be worked from this point, showing required Temperature at source (EGL Site).

- Production Flow Temperature = 85 - 95 °C
- Production Flow Rate = 30 - 60 l/s
- Outlet temperature from primary heat exchanger = -85 – 90 °C
- Reinjection Temperature = 60 °C
- Reinjection Flow Rate = 30 - 60 l/s

8.4 Welded Joints

From dimension 20mm upwards joints must be welded joints.

An open welded joint will be preferred, and the welded joints must be available in more than one length.

The foaming hole is to be secured with a welding plug.

The installation of the welded joint must be fully documented. As a minimum, the following electronic documentation will be required:

- The welding temperature during installation.
- Welding time.
- Date of the welding.
- The effect used.
- Traceability to the specific joint (welding machine, dimension, type of joint and installer).
- Position for the specific welding is registered.
- A receipt verifying that the installer has made a visual inspection of the joint and that the installer has pressure tested the joint and controlled the surveillance system.
- Warranty for all joints of Minimum 5 years

8.5 Surveillance system

The pre-insulated pipe system must be with a complete surveillance system according to EN14419.

A surveillance diagram for the complete system will be required before work can commence. Final placement of surveillance components such as control boxes and detectors must be agreed with the client before installation of the pipe system is commenced.

Maximum distance between control boxes is 500 m alarm wire on a distribution system and 1000 m on a transmission pipe line for single pipes.

Maximum distance between control boxes is 400 m alarm wire on a distribution system and 800 m on a transmission pipe line for twin pipes.

Cable take-off must be weldable.

The surveillance system must be an active system meaning that the alarm wires are continuously controlled from a surveillance unit. The surveillance unit must give an optic and acoustic signal and have be able to be connected with a SRO system.

The surveillance system must as a minimum show and document the following:

- Loop (Wire break)
- Wire Resistance
- Insulation Resistance
- Short circuit

The surveillance unit must be designed for central surveillance and have the possibility of having individual measure points on different loops.

It must be possible to send all data from the surveillance units wirelessly, via GPRS or fibre cables, to a central unit.

The system must be designed to accommodate future communication systems and it must be possible to update the surveillance units continuously over time.

The surveillance units must be able to work on both 230V and on batteries.

The surveillance units must be CE approved.

In addition, as an alternative to offering systems where technicians will detect any failure, the supplier must be able to offer a surveillance system that can automatically detect any failure.

8.6 As built drawings

As built drawings must:

- Include weld number, coordinates & elevation. Please clarify what elevation is shown (crown of pipe or trench bottom).
- Include pipe size and depth information (e.g. DN150 36A 600), Please update to clarify depth information units and whether it is to crown of pipe or trench depth.
- Also clarify whether DN shown in table is internal or outside diameter of pipe.
- Show valve positions, ID (to allow cross-reference with valve schedule) and type (e.g. Logstor type 4200).

- Indicate which pipe is F&R.
- Include internal and external diameter of pipework.
- Show date of installation (DD-MM-YYYY).
- Show position, type and size of valve access covers. Indicate the cover positions as circles on the main drawing. Type information could be provided in the legend.
- Show drain point positions.
- Indicate high stress areas.
- Indicate where foam expansion pads used.
- Indicate position of any sleeves if used.

8.7 Band Joint records

The Contractor is to keep a record of each and every individual steel weld. It will be uniquely numbered and the record will show the name of the operative, the type of weld and the date /location of the weld. This record will be submitted to the Project Manager for Completion.

The Contractor is to keep a record of each and every band muff / electrofusion joint. Each will be uniquely numbered and the record will show the name of the operative and the date. This information will be linked to the corresponding steel weld it covers. The unique identifier of each weld is also to be shown on the as-built drawings.

The Contractor is to keep a record of each and every phase array NDT test that is completed on each steel weld. This is to be uniquely numbered and the record will show the name of the operative and the date. This information will be linked to the corresponding steel weld it certifies. The unique identifier of each test is also to be shown on the as-built drawings.

The weld log, band muff log and phase array NDT log will be updated weekly and submitted to the Project Manager for acceptance. The certificates for the NDT tests will also be submitted at the same time.

9 Privately and Publicly Owned Services or Supplies

9.1 General

9.1.1 The approximate locations of known, abandoned or existing apparatus within the site boundary are shown on the drawings listed and contained in Appendix B. A GPR survey will be available imminently and will be forwarded to all registered tenderers.

9.1.2 The *Contractor* shall take account of all environmental aspects, including impacts on landscaping, planting and other mitigation measures, in developing the detailed proposals for necessary diversion works.

9.1.3 The *Contractor* shall be responsible for determining the levels required for the diversion, Site clearance requirements, setting out requirements and access requirements.

9.2 Private Supplies and Services

9.2.1 Based on the GPR survey and supplied drawings, The *Contractor* shall locate all private supplies and services affected by the works and be responsible for the payment, management, coordination and programming of any necessary diversionary or protection works to maintain the existing supplies or services.

Any unknown Services found during the works shall be discussed with the *Employer* to establish required works and costs to manage

10 Health and Safety

10.1 Principal Contractor

10.1.1 The *Employer* appoints the *Contractor* to act as Principal *Contractor* for the purposes of the Construction (Design and Management) Regulations 2015.

10.2 Principal Designer

10.2.1 The *Employer* expects that the *Contractor's* Designer will fulfil this role under the Construction (Design and Management) Regulations 2015 (CDM Regulations).

10.3 Designer

10.3.1 The *Contractor* appoints a Designer under the Construction (Design and Management) Regulations 2015 (CDM Regulations) from the Contract Date. In this contract the role of the Designer is referred to as the *Contractor's* designer.

10.4 Pre-Construction and Construction Phase Health and Safety Plans

10.4.1 Prior to commencement of any construction works the *Contractor* will be required to fully develop the Pre-Construction Information Pack in accordance with the CDM Regulations (2015).

10.4.2 The *Contractor* will be required to develop a comprehensive Construction Phase Health and Safety Plan in accordance with the CDM Regulations (2015).

10.5 Health and Safety File

10.5.1 A Health and Safety File shall be prepared by the Principal Designer in accordance with the CDM Regulations (2015).

10.5.2 The information shall be issued within one month of completion of the works

10.6 Accident Reporting

10.6.1 The *Contractor* shall implement an Accident and Incident Reporting system that allows the completion of a single incident report, which can be submitted to several organisations.

10.6.2 The *Contractor* shall also ensure that all accidents, incidents and near misses that occur while undertaking the Works are reported by phone to the *Employer* within two hours. This in effect means all incidents that are recorded within the accident book/records.

10.6.3 The *Contractor* shall be responsible for all reporting to RIDDOR during Works.

11 Progress Meetings

11.1 Progress Meetings

11.1.1 The *Contractor* and the *Contractor's* designer shall attend formal progress meetings each month with the *Employer* and such other bodies as may be required from the starting date until Completion.

11.1.2 The agenda for the meetings shall be prepared by the *Contractor* and forwarded to the *Employer* at least one week prior to the meeting for comment.

11.1.3 The *Contractor* shall prepare and submit to the *Employer*, at least two working days in advance of the meeting, a monthly progress report to include the following information:

- Health and Safety / CDM issues;
- Progress report for period covered by meeting;
- Work programme for next reporting period;
- Actual start dates of activities commenced since the previous update and reasons for any changes from the accepted Programme and any impact on the key date stated in Contract Data Part one;
- Actual Completion Dates of activities completed since the previous update and reasons for any changes from the accepted Programme;
- The anticipated time for Completion, in working days, for activities in hand;
- Any change requested by the *Contractor* to the programmed Completion Date appropriate to each Section of the works of the commission and the reasons for any change;
- Proposals for retrieving of any slippage to the accepted Programme;
- Design issues;

- Confirmation of scheme costs estimate and budget forecast;
- Payment Schedule;
- Agreement of Compensation Events;
- Confirmation of payments & progress;
- Subcontractors and Suppliers;
- Quality Matters;
- Environmental Matters; and
- Third Party Claims

11.1.4 The *Contractor* shall prepare minutes of the monthly progress meetings and shall submit them within 5 working days of the meeting to the *Employer* for agreement. The minutes shall include an abbreviated action list with assigned responsibilities.

11.1.5 Within 5 working days before each progress meeting the *Contractor* shall update his work programme and issue "print-outs" two working days prior to the progress meeting. Appropriate data will be provided by the *Employer* in respect of activities for which they are responsible.

11.1.6 The *Contractor* shall allow for weekly meetings with all parties to review Health & Safety and progress.

APPENDIX B – Supporting and Technical Information

The drawings provided are the basic route site plan drawn up by the Employer (EGL) and various Utility drawings covering the route.

They will be forwarded to registered bidders upon receipt of an expression of interest emailed to tenders@edengeothermal.com (Our website does not support download of some file types.)

Heat Main Detail (sheets 1&2)

Ground Penetration Radar Survey

Eden Site Plan

Imerys Clay pipelines on Eden layout

Heat Main Topographic Survey (sheets 1-3)

Heat Main Topographic ALL 3D

Heat Main Topographic ALL

APPENDIX C – Draft form of contract

The *conditions of contract* shall be those set out in the NEC4 Engineering and Construction Short Contract June 2017 (Option A) with amendments.

A completed form of the Clients Contract Data and amendments to the standard contract is set out in Section 2.

Section 5, Scope and Section 6, Site Information have also been completed.

Eden Geothermal: Amendments to the NEC4 Engineering and Construction Short Contract Option A (June 2017)

Design, supply and installation of a heat main - EGL-ITT-C067

DRAFT FOR INFORMATION

[Date to be inserted here]

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Section 1

Form of Agreement

THIS AGREEMENT is made on

BETWEEN:

- (1) **Eden Geothermal Limited** (Company No. 10216419) whose registered office is at Bodelva, St Austell, Cornwall, (the "**Client**"); and
- (2) [**CONTRACTOR**] (Company No. [□]) whose registered office is at [.....] (the "**Contractor**").

WHEREAS:

The *Client* wishes to appoint the *Contractor* to carry out the following *works* **To Design and install the following: Flow and Return Heat Main, LV Ducting, Comms Ducting and Water Main (Grey water)**

IT IS HEREBY AGREED as follows:-

INTERPRETATION

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the *conditions of contract* hereinafter referred to.

THE CONTRACT

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, namely
- (a) the *conditions of contract*, referred to below
 - (b) the Contract Data Part One;
 - (c) the Contract Data Part Two;
 - (d) the Price List;
 - (e) the Scope;
 - (f) the Site Information; and
 - (g) the Appendices.

THE WORKS

3. The *Contractor* shall carry out the *works* as identified in the Scope, in accordance with this Agreement.

CONDITIONS OF CONTRACT

4. The *conditions of contract* shall be those set out in the NEC4 Engineering and Construction Short Contract June 2017 as amended by the additional conditions set out after the Contract Data Part One in Section 2.

CONSIDERATION

5. In consideration of the payments to be made by the *Client* to the *Contractor* as hereinafter mentioned the *Contractor* hereby covenants with the *Client* to carry out and complete the *works* in conformity in all respects with the provisions of this Agreement and to otherwise comply with and fulfil all his obligations and duties arising under this Agreement.

PAYMENT

6. The *Client* hereby covenants to pay to the *Contractor* the amount due at the times and in the manner specified in the *conditions of contract*.

LAW AND JURISDICTION

7. This Agreement shall be governed by and construed according to the laws of England and Wales and any disputes arising under or in connection with it shall be settled in accordance with Clause 93.

LIMITATION

8. The Parties agree the Contractor's liability shall be limited as set out in the *conditions of contract*.



IN WITNESS whereof this Agreement has been executed as a deed and delivered on the date first before written.

Executed as a deed by **Eden Geothermal Limited** acting by **[NAME OF DIRECTOR]**, a director, in the presence of:

.....
[SIGNATURE OF DIRECTOR]
Director

.....
[SIGNATURE OF WITNESS]

Name of Witness
[IN BLOCK CAPITALS]

.....

Address of Witness

.....

.....

Occupation of Witness

.....

Executed as a deed by **[CONTRACTOR]** acting by **[NAME OF DIRECTOR]**, a director, in the presence of:

.....
[SIGNATURE OF DIRECTOR]
Director

.....
[SIGNATURE OF WITNESS]

Name of Witness
[IN BLOCK CAPITALS]

.....

Address of Witness

.....

.....

Occupation of Witness

.....

Section 2

Contract Data

Contract Data - Part 1

The *Client's* Contract Data

The *Client* is

Name Eden Geothermal Limited

Address for Electronic Communications **[To be inserted]**

The *Works* are **[To be inserted]**

The *site* is Eden Project located at Bodelva, St Austell, Cornwall

The *starting* date is The date as notified by the *Employer* to the *Contractor* provided that such notice shall be provided no later than **[TBC]** days after the date of this contract.

The *completion* date is **[To be inserted]**

The *delay* damages are **£2,500** per day for 14 days, up to the delay damages limit

The *period for reply* is **1** week

The *defects* date is **52** weeks after Completion excluding Heat main pipe work which is covered as per Appendix A

The *defects correction period* is **4** weeks except that in respect of Defects affecting safety and/or which create an emergency, in which case Clause 42.5 shall apply.

The *assessment* day is the **The 15th working day** of each month

The *retention* is **2.5%**. 50% to be released following certification of practical completion and the remainder of on completion of defects liability

The United Kingdom Housing Grants, Construction and Regeneration Act (1996) **does** apply.

The *Adjudicator* is

Name	To be appointed by the Technology and Construction Solicitors' Association
Address for Communications	As per the Technology and Construction Solicitors' Association Rules
Address for Electronic Communications	As per the Technology and Construction Solicitors' Association Rules
The interest rate on late payment is	2% per complete week of delay.
For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to	Minimum £5M Cover (Public Liability Cover; see Schedule 1f of EGL-ITT-C067
The <i>Client</i> provides this insurance	Not applicable
The minimum amount of cover for the third insurance stated in the Insurance Table is, for any one event	Minimum £5M Cover (Employer's Liability Cover; see Schedule 1f of EGL-ITT-C067
The minimum amount of cover for the fourth insurance stated in the Insurance Table is, for any one event	Minimum £2M Cover (Professional Indemnity Cover; see Schedule 1f of EGL-ITT-C067
The <i>Adjudicator</i> nominating <i>body</i> is	The Technology and Construction Solicitors' Association
The <i>tribunal</i> is	Arbitration
If the <i>tribunal</i> is arbitration, the arbitration procedure is	LCIA Rules

Schedule of Amendments

The *conditions of contract* are the NEC4 Engineering and Construction Short Contract (June 2017) and the following amendments and additional conditions.

Clause	Amendment
11.2 (1)	<p>Delete and replace with a new Clause as follows:</p> <p>“Completion is when the <i>Contractor</i> has:</p> <ul style="list-style-type: none"> • completed the <i>works</i> in accordance with the Scope and corrected all Defects excepting those Defects the <i>Client</i> has agreed may be corrected after Completion; • provided the <i>Client</i> with all the documentation specified in the Scope to be provided to the <i>Client</i> prior to Completion and as a condition of Completion; and • executed and delivered all collateral warranties relating to this contract as required in Clause Z3 (if any).”
	Add the following at the end of Clause 11.2:
11.2 (17)	<p>“Applicable Law” means any statute, law, order, regulation, by-law, statutory instrument, decision, judgment, rule, order, consent or delegated or subordinate legislation, or any modification or amendment of any of the foregoing having the force of law in England. References to “law of the contract” and “applicable law” shall be deemed to be references to “Applicable Law”.</p>
11.2 (18)	<p>“CDM Regulations” means the Construction (Design and Management) Regulations 2015 and any Approved Code of Practice together with any guidance or requirements issued from time to time by the Health and Safety Executive, as all of the above may be amended, revised or supplemented from time to time.</p>
11.2 (19)	<p>“Client Agent” means a person(s) or organisation appointed by the <i>Client</i> to perform the function as set out in Clause 14.6.</p>
11.2 (20)	<p>“Documents” means data, records, reports, documents, manuals, designs, drawings, plans, specifications and other works or materials of any nature in any form or medium (excluding proprietary software).</p>
11.2 (21)	<p>“Environment” means any and all of the following: air (including without limitation air within manmade structures or natural structures); water; land (including without limitation the surface and the subsurface of land); and organisms (including without limitation human beings), ecosystems and habitats.</p>
11.2 (22)	<p>“Environmental Harm” means any adverse impact on or deterioration in the quality of air, land or water or the Environment as a whole, harm to the health of human beings or other organisms, offence to the senses of human beings, impairment or interference with ecosystems and habitats, impairment or</p>

Clause	Amendment
	interference with the amenity of the Environment or any release, discharge or spillage of Hazardous Substances.
11.2(23)	“Funder” means any person providing finance for or in connection with the Project, including any agent or trustee acting on behalf of such a person.
11.2 (24)	“Good Industry Practice” means using standards, practices, methods and procedures as would be expected of an adequately resourced contracting organisation experienced in the provision of design and construction works similar in nature scale and complexity to the <i>works</i> with knowledge of the <i>Contractor’s</i> obligations under this contract.
11.2 (25)	“Hazardous Substances” means any substance whatsoever (whether a solid, liquid, gas or any other state of matter and whether alone or in combination with any other substance) which is capable of causing Environmental Harm (including without limitation substances defined as hazardous in the European Waste Catalogue).
11.2(27)	“Insolvent” means a party: <ul style="list-style-type: none"> • is insolvent or • being an individual, has presented an application for bankruptcy, had a bankruptcy order made against it, had a receiver appointed over its assets or made an arrangement with its creditors or • being company or partnership has had a winding up order made against it, had a provisional liquidator appointed to it, has passed a resolution for winding-up (other than in order to amalgamate or reconstruct), has had an administration order made against it or had an administrator an administrator appointed over it, had a receiver, receiver and manager or administrative receiver appointed over the whole or a substantial part of its undertaking or assets or made an arrangement with its creditors or • has been subject to anything substantially similar to the above occurrences in any jurisdiction.
11.2 (26)	“Intellectual Property Rights” are any current and future legal and equitable interests in patents, trademarks, design rights, copyright, know-how and other similar rights, whether or not registered or capable of registration.
11.2(27)	“Key Subcontractor” means any subcontractor responsible for the following: [Collateral warranties may be required depending on the delivery method of the main contractor] and clarification of proposed supply chain for the works. For example: If the main contractor uses the services of an engineering consultancy in order to undertake the detailed design then a collateral warranty for that company will be required. If the main contractor uses the services of an electrician to connect the site building to the mains supply then a collateral warranty will not be required for the

Clause	Amendment
	third party.
11.2(28)	"LCIA Rules" are the LCIA Arbitration Rules current at the date the relevant dispute is referred to arbitration.
11.2 (29)	"Licence" means any permit, consent, approval, authorisation, agreement, no objection certificate, waiver or licence which must be obtained from any person (including both private persons and public sector entities) in order for the <i>works</i> to be performed and for any goods to be transported, imported or exported.
11.2 (30)	"Project" means the enabling works required to design and install the heat main at the <i>site</i> (as defined in the Scope of Works at Appendix A of EGL-ITT-C067).
11.2 (31)	"Regulator" means any statutory authority being any governmental or local authority, statutory undertaker or other body of competent jurisdiction which has any jurisdiction with regard to the <i>works</i> and/or the performance of the <i>Contractor's</i> obligations under this contract and/or with whose requirements the <i>Client</i> is required or accustomed to comply and/or with whose systems the <i>works</i> are or will be connected.
11.2 (32)	"Regulatory Requirement" means any legally enforceable requirement of any Regulator and any condition, stipulation, proviso, restriction or requirement of any licence, authorisation, consent, omission, order, permit, warrant, approval or notice (whether obtained by the <i>Client</i> or by the <i>Contractor</i>) required in order to enable the <i>Contractor</i> to carry out the <i>works</i> or otherwise required in connection with the <i>works</i> and any condition precedent or other requirement of any Regulator which must be satisfied prior to the grant, issuance, renewal, variation, extension, continuation and/or reconfirmation of any such licence, authorisation, consent, permission, order, permit, warrant, approval or notice.
11.2 (33)	"Third Party Agreements" means the documents noted as Third Party Agreements in the Scope. Not Applicable
12.5 Additional clause	Add as Clause 12.5: "A person who is not a party to this contract may not enforce any of its terms under the Contracts (Rights of Third Parties) Act 1999."
12.6 Additional clause	Add as Clause 12.6: "To the extent that there is any conflict between the meaning of terms and conditions within the core clauses of the <i>conditions of contract</i> , these additional conditions and anything contained within any schedules, appendices or the Scope, these additional conditions of contract followed by the core clauses of the <i>conditions of contract</i> shall prevail."
12.7	Add as Clause 12.7:

Clause	Amendment
Additional clause	<p>“12.7 In this contract, unless the context otherwise requires:</p> <ul style="list-style-type: none"> • the headings are for convenience only and shall not affect its interpretation, • reference to a Clause, schedule, appendix or paragraph are to a Clause, a schedule, an appendix or a paragraph in this contract, • any reference to this contract or to any other document shall include any permitted variation, amendment or supplement to such document, • the schedules and appendices to this contract shall have the same effect as if contained in the body of the contract, and any reference to this contract shall include the schedules and appendices, • any reference to any statute shall include references to the same as it may have been, or may from time to time be amended/modified, consolidated or re-enacted and to any regulation or subordinate legislation made under it (or under such an amendment, modification, consolidation or re-enactment) subject to the provisions of this contract which relate to change of law, • reference to the plural shall include the singular and vice versa, and reference to one gender includes reference to all genders. Any reference to a person shall be a legal person of whatever kind whether incorporated or unincorporated and to its successors, permitted assigns and transferees, and • words shall not be given a restrictive interpretation by reason of their being preceded or followed by words indicating a particular class of acts, matters or things.”
13.1	<p>Before the full stop at the end of the first sentence insert “(including email and web based collaboration tools)” and at the end of the clause insert a new sentence “Communications relating to termination of the <i>Contractor’s</i> obligations under this contract or a dispute are not to be given by email or web based collaboration tools.”</p>
14.6 Additional clause	<p>The <i>Client’s</i> authority and delegation</p> <p>Insert a new clause as follows:</p> <p>“The <i>Client’s Agent</i> acts on behalf of the <i>Client</i> with the authority set out in the Contract Data. The <i>Client</i> may replace the <i>Client’s Agent</i> after he has notified the <i>Contractor</i> of the name of the replacement.”</p>
20.3 Additional clause	<p>Add as new Clause 20.3:</p> <p>“The <i>Contractor</i> shall be fully responsible and liable for the design of the <i>works</i>, including the selection of any Plant and Materials in connection thereto (including</p>

Clause	Amendment
	any design prepared by the <i>Client</i> or on behalf of the <i>Client</i> prior to the contract being entered into)."
20.4 Additional clause	Add as new Clause 20.4: "The <i>Contractor</i> submits the particulars of his design as the Scope requires to the <i>Client</i> for acceptance. A reason for not accepting the <i>Contractor's</i> design is that it does not comply with either the Scope or the Applicable Law."
21.3	The Contractor does not enter into any subcontracts with Key Subcontractors without the prior written consent of the Client (not to be unreasonably withheld or delayed).
21.4 Additional clause	Add as new Clause 21.4: "The <i>Contractor</i> is responsible for ensuring that any preferred and/or named subcontractor or supplier specified in the Scope performs his obligations under the relevant subcontract. The naming by the <i>Client</i> of preferred subcontractor or supplier does not, in any way, relieve the <i>Contractor</i> from his obligations and liabilities under this contract."
21.5 Additional clause	Add as new Clause 21.5: "21.5 The <i>Contractor</i> : 21.5.1 shall at all times consult and co-operate with the <i>Client's</i> employees, representatives and agents, and any statutory undertakers or utility companies; 21.5.2 is fully responsible for all aspects of and the execution and completion of the <i>works</i> , including, without limitation, the interfaces between items consisting of the <i>works</i> which have either been recommended, designed, named, selected or incorporated into the <i>works</i> from any other contractor or subcontractor; 21.5.3 is fully responsible for ensuring that the design of the <i>works</i> is coordinated and integrated with the design of the Project for which other persons are responsible paying due regard to the responsibilities of the <i>Client</i> under, pursuant to, or arising out of, the contract; and 21.5.4 shall provide access and co-operation to any other contractors or consultants engaged by the <i>Client</i> in relation to the Project as directed by the <i>Client</i> ."
22.2 Additional	Add as new Clause 22.2: "The <i>Contractor</i> permits work being carried out by any other contractors or

Clause	Amendment
clause	consultants engaged by the <i>Client</i> in relation to the Project concurrently with the execution of the <i>works</i> ."
23 Additional clause	Add as new Clause 23: Other responsibilities
23.1 Additional clause	Add as new Clause 23.1: "23.1 Notwithstanding any other provision of the contract the <i>Contractor</i> will comply with and ensure that at the Completion Date, the <i>works</i> comply with all Licences, Applicable Laws and Regulatory Requirements."
23.2 Additional clause	Add as new Clause 23.2: "23.2.1 The <i>Contractor</i> warrants and undertakes that he has not and shall not specify nor authorise, cause or allow to be used any material which does not comply with the Scope or is known to or is reasonably believed to pose a hazard to the health of any person or to the Environment or which, at the time of specification or use in the <i>works</i> is generally accepted as being deleterious (" Prohibited Materials "). 23.2.2 The <i>Contractor</i> shall immediately notify the <i>Client</i> if he suspects or becomes aware of any proposed or actual use within or in connection with the <i>works</i> of any of the Prohibited Materials."
23.3 Additional clause	Add as new Clause 23.3: "23.3.1 The <i>Contractor</i> grants to the <i>Client</i> , with immediate effect, an irrevocable, non-exclusive, royalty-free licence to copy and make full use of the Documents for any purpose relating to the <i>works</i> . 23.3.2 The <i>Client's</i> licence carries the right to grant sub-licences and is transferable to third parties without the consent of the <i>Contractor</i> and shall survive the termination (for any reason) of the Contract. 23.3.3 The <i>Contractor</i> obtains from any subcontractors equivalent rights in favour of the <i>Client</i> over the material prepared by the subcontractors. 23.3.4 The <i>Contractor</i> is not liable for use of the Documents for any purpose other than that for which they were prepared or provided. 23.3.5 The <i>Contractor</i> makes available to the <i>Client</i> all Documents created by the <i>Contractor</i> or any subcontractor in relation to the contract for use by the <i>Client</i> to carry out any statutory duty or for any purpose connected with construction, alteration or demolition of the <i>works</i> and for other purposes stated in the Scope. The <i>Contractor</i> makes available the Documents in the format and manner specified in the Scope. 23.3.6 The <i>Contractor</i> warrants that the <i>Client's</i> exercise of any such

Clause	Amendment
	<p>Intellectual Property Rights in the Documents shall not infringe the Intellectual Property Rights of any third parties. The <i>Contractor</i> shall indemnify the <i>Client</i> against any claims, damages, losses, costs or expenses suffered by the <i>Client</i> (or its assignees or licensees) as a result of the <i>Client's</i> exercise of such Intellectual Property Rights or for which the <i>Client</i> is otherwise liable arising out of or in connection with any infringement of any Intellectual Property Rights of any third party caused by or arising out of performing any statutory duty or for any purpose connected with construction, alteration or demolition of the <i>works</i> and for other purposes stated in the Scope.</p> <p>23.3.7 The <i>Contractor</i> has the right to use Documents provided by the <i>Client</i> only to satisfy its obligations under the Contract. The <i>Contractor</i> may make this right available to subcontractors for the same purpose. On Completion the <i>Contractor</i> returns all such Documents to the <i>Client</i>.</p> <p>23.3.8 Where any Documents are held on computer or in other machine readable format, the <i>Contractor</i> provides a licence for and supplies any software necessary to enable the <i>Client</i> and its representatives to access and use the Documents for the purpose of performing any statutory duty or carrying out any function in relation to the <i>site</i> or the works either before or after Completion.</p> <p>23.3.9 The <i>Client</i> and the <i>Contractor</i> do anything necessary to confirm the terms of any assignment of Intellectual Property Rights or license to use the Documents.</p> <p>23.3.10 As contemplated by the Copyright, Designs and Patents Act 1988, to the extent the <i>Contractor</i> or any subcontractor is the author of Documents which comprise Intellectual Property Rights, the <i>Contractor</i> waives and shall ensure that the subcontractor waives its rights against the <i>Client</i>, the <i>Client's</i> assignees and licensees to the extent that the exercise of such rights would prevent or impede the <i>Client's</i> exercise of the Intellectual Property Rights."</p>
<p>23.4 Additional clause</p>	<p>Add as new Clause 23.4:</p> <p>"23.4.1 Where and to the extent that the CDM Regulations apply to any <i>works</i> and, to the extent specified in the contract, the <i>Contractor</i> is appointed as "principal contractor", the "principal designer" and/or "designer" (as those terms are defined in the CDM Regulations) and performs all the functions and obligations of these appointments. The <i>Contractor</i> hereby confirms and agrees that in relation to the preparation of any design in any <i>works</i> for which he is responsible under this contract:</p> <ul style="list-style-type: none"> • the <i>Contractor</i> shall (and shall ensure that and subcontractor, or suppliers who undertake any responsibility in relation to the preparation, development and completion of such design or any part thereof shall) carry out and fulfill in all respects the duties of a designer under the CDM Regulations; • the <i>Contractor</i> has or shall be deemed to have made all due

Clause	Amendment
	<p>allowance in the programming, planning and pricing of the <i>works</i> for compliance with this clause.</p> <p>23.4.2 The <i>Contractor</i> warrants and undertakes that he is competent for the purposes of the CDM Regulations and that he has allocated and will continue to allocate adequate resources to comply with the duties and obligations imposed on him by the CDM Regulations.</p> <p>23.4.3 Where the <i>Contractor</i> is not or ceases to be the principal contractor, the <i>Contractor</i> shall (and shall ensure that all subcontractors or suppliers shall) comply with its duties and obligations as a contractor under the CDM Regulations and, to the extent that the <i>Contractor</i> is not appointed as the principal designer, liaise and co-operate fully with the principal designer for the <i>works</i>.</p> <p>23.4.4 The <i>Contractor</i> shall not commence any work on <i>site</i> until an adequate construction phase plan is in place, as required by the CDM Regulations."</p>
<p>23.5 Additional clause</p>	<p>Add as new Clause 23.5:</p> <p>"Protection of the Environment</p> <p>23.5.1 The <i>Contractor</i> shall at all times be responsible for and take reasonable and proper steps for protecting the Environment and shall ensure that in carrying out the <i>works</i> he does not cause Environmental Harm.</p> <p>23.5.2 In doing so, the <i>Contractor</i> shall comply with all Regulatory Requirements.</p> <p>23.5.3 The <i>Contractor</i> shall be liable for, and shall indemnify the <i>Client</i> against any expense (including without limitation site investigation and remediation costs), liability, loss, claim, proceedings (including without limitation informal and formal enforcement proceedings brought by a Regulator), or Regulatory Requirements (including without limitation compulsory remediation required by a Regulator) arising in respect of Environmental Harm as a result of any breach of contract, breach of statutory duty or negligence by the <i>Contractor</i> or any of its subcontractors, operatives, employees or agents."</p>
<p>23.6 Additional clause</p>	<p>Add as new Clause 23.6:</p> <p>"23.6.1 The <i>Contractor</i> shall be deemed to have read the Third Party Agreements and to be fully aware of the obligations, risks and liabilities assumed by the <i>Client</i> under them.</p> <p>23.6.2 The <i>Contractor</i> shall have due regard to the Third Party Agreements and shall perform its duties and comply with its obligations under the contract in such a manner so that no act or omission of the <i>Contractor</i> shall cause or contribute to any breach by the <i>Client</i> of its obligations under the Third Party Agreements. The <i>Contractor</i> shall be responsible for and pay to the <i>Client</i> any and all costs, expenses, losses or other sums that the <i>Client</i> may suffer or incur under or pursuant to the Third Party Agreements (or any of them) to the extent that the same is attributable to any breach by</p>

Clause	Amendment
	the <i>Contractor</i> of his obligations under this Clause 23.6.”
25 Additional clause	Add as new Clause 25: Obtaining of Licences
25.1 Additional clause	Add Clause 25.1: “The <i>Contractor</i> obtains all Licences required for the carrying out of the <i>works</i> except for those which the Scope expressly states will be obtained by the <i>Client</i> .”
25.2 Additional clause	Add Clause 25.2: “In relation to Licences which it is the <i>Client’s</i> responsibility to obtain, the <i>Contractor</i> : <ul style="list-style-type: none"> • provides such support as the Scope states the <i>Contractor</i> is to provide to the <i>Client</i> in applying for and obtaining such Licences, and • provides such other support as the <i>Client</i> reasonably requires.”
25.3 Additional clause	Add Clause 25.3: “The <i>Contractor</i> ensures that the <i>works</i> complies with all Licences, Applicable Laws and Regulatory Requirements (including, without limitation, those relating to the protection of human health and the Environment) (and procures that its subcontractors so comply) in Providing the <i>works</i> .”
26 Additional clause	Add as new Clause 26: Performance Security
26.1	Add Clause 26.1: “On or before the <i>starting date</i> the <i>Contractor</i> provides the <i>Client</i> with a parent company guarantee in the form set out in this Contract, executed as a deed by the <i>Contractor’s</i> ultimate parent company or other group company approved by the <i>Client</i> in writing in advance.” [It is expected that a bond will be provided on the terms specified however a Parent Company Guarantee may be relevant in addition / in lieu of a bond subject to the bidder’s corporate structure and in the context of the bid as a whole.]
26.2	Add Clause 26.2: “On or before the <i>starting date</i> the <i>Contractor</i> provides the <i>Client</i> with a performance bond, duly executed by a bank or financial institution approved by

Clause	Amendment
	<p>(and located in a jurisdiction approved by) the <i>Client</i>, for the proper performance of its obligations under this Contract in the form set out in this Contract in the amount of 10% of the total of the Prices. The <i>Contractor</i> ensures that the performance bond is valid and enforceable until the issuance of the Defects Certificate (the "Permitted Expiry Date"). If the terms of the performance bond specify its expiry date, and the Permitted Expiry Date has not occurred by the date 28 Days prior to the expiry date, the Contractor shall extend the validity of the Performance Bond until the Permitted Expiry Date.</p> <p>If the bond provider's long-term unsecured debt has credit ratings of less than [A-] S&P or [A-] Moodys (the "Required Rating"), the <i>Contractor</i> notifies the <i>Client</i> and promptly (in any event within 14 days) replaces the performance bond with a replacement performance bond meeting the requirements of this Clause 26.2.</p> <p>Where the total of the Prices increases by an amount in aggregate equal to or greater than two percent (2%) of the total of the Prices as at the issuance or last increase of the value of the performance bond, the <i>Contractor</i> procures within 30 days of such increase the issuance of an amended or supplementary performance bond meeting the requirements of this Clause 26.2."</p>
26.3	<p>Add Clause 26.3:</p> <p>"Where the <i>Contractor</i> fails to procure, maintain or replace [a parent company guarantee and / or a performance bond] in accordance with this Clause 26, the <i>Client</i> may (subject to Clause 50.5 [but without prejudice to its rights under Clause 90 withhold further payment to the <i>Contractor</i> until such time as the <i>Contractor</i> complies with its obligations under this Clause 26."</p>
42.5 Additional clause	<p>Correcting Defects</p> <p>Add Clause 42.5:</p> <p>"In respect of Defects affecting health and safety and/or which create an emergency, the <i>Contractor</i> shall correct such Defects as quickly as is reasonably practicable with the <i>Contractor</i> using reasonable endeavours."</p>
50.2	<p>Assessing the amount due</p> <p>At the end of Clause 50.2, add a new sentence:</p> <p>"The <i>Contractor's</i> application for payment shall be accompanied by an invoice raised by the <i>Contractor</i> for the amount assessed as due in the Contractor's application for payment together with the amount of VAT due and shall be issued to the <i>Client</i>."</p>
51.1	<p>Payment</p> <p>In the first line of Clause 51.1 replace the words "within three weeks after the <i>assessment day</i>" with "within thirty days of receipt of the <i>Contractor's</i> invoice by the <i>Client</i> (or sixty days in the case of the final payment)".</p>

Clause	Amendment
60.1	<p>Compensation Events</p> <p>In line 1 after "are" insert: "to the extent they do not result from any error, omission, negligence or default of the <i>Contractor</i>".</p>
60.1(1)	<p>Insert at the end: "or a change to the Scope provided by the Contractor which is made at his request."</p>
60.1(10)	<p>Add at the end: "unless the correction by the <i>Client</i> was necessary due to inaccurate, incomplete or incorrect information provided by the <i>Contractor</i>."</p>
60.1(11)	<p>Delete text of Clause 60.1(11) and insert "An event or circumstance which is beyond the control of the <i>Contractor</i> and which makes it impossible or illegal for the <i>Contractor</i> to perform its obligations under or in relation to this contract."</p>
60.2	<p>Delete text of Clause 60.2 and insert:</p> <p>"The <i>Contractor</i> has inspected the physical conditions (including the subsurface conditions), and other conditions affecting the <i>site</i> and has fully acquainted himself with the same before the date of this contract and has obtained all necessary information as to risks, contingencies and all other circumstances which may influence or affect the design or execution of the works. Notwithstanding any other provision of this contract, no unexpected physical conditions or obstructions (other than weather conditions constituting a compensation event), and no failure on the part of the Contractor to discover or foresee any such condition, risk, contingency or circumstance constitutes a compensation event, unless such condition, obstruction, risk, contingency or circumstances was Unforeseeable.</p> <p><i>"Unforeseeable" means not foreseen by the Contractor at the date of this contract and/or not reasonably foreseeable at the date of this contract by an appropriately qualified contractor, with experience in carrying out work for projects of a similar type, nature and complexity to the Works, employing Good Industry Practice.</i></p>
60.3	<p>Add as new Clause 60.3:</p> <p>"Provided that the <i>Contractor</i> complies with his obligations in Core Clause 6 [<i>Compensation Events</i>], the <i>Contractor</i> is entitled to an extension to the Completion Date, or such other adjustment to the accepted programme for the performance of his obligations under this contract to take account of delay due to a compensation event pursuant to Clause 60.1(11). Notwithstanding Core Clause 6 [<i>Compensation Events</i>], the <i>Contractor</i> is not entitled to a change in the Prices due to a compensation event pursuant to Clause 60.1(11)."</p>
60.4	<p>Add Clause 60.4:</p> <p>"The <i>Contractor</i> shall mitigate the effects of any compensation event. Any failure to comply with this obligation shall be taken into account when assessing a compensation event."</p>

Clause	Amendment
70.3 Additional clause	Add a new Clause 70.3: "The value of Plant and Materials outside the <i>site</i> is excluded from the Price for Work Done to Date unless: 70.3.1 the Plant and Materials is within the United Kingdom, 70.3.2 the <i>Contractor</i> demonstrates to the satisfaction of the <i>Client's Agent</i> that the <i>Contractor</i> has unencumbered title to the Plant and Materials, 70.3.3 the Plant and Materials is stored separately and is clearly and visibly marked as for the <i>Client</i> and this contract, 70.3.4 the Plant and Materials is adequately protected against water, theft, vandalism and other casualties, 70.3.5 the Plant and Materials is insured against loss or damage while stored or in transit to the <i>site</i> for its full reinstatement value under a policy of insurance protecting the interests of the Parties in respect of the usual insured risks for the period until it is brought within the <i>site</i> ."
70.4 Additional clause	Add a new Clause 70.4: "Where the value of Plant and Materials outside the <i>site</i> is included in the Price for Work Done to Date: 70.4.1 the <i>Contractor's</i> title in the Plant and Materials passes to the <i>Client</i> , 70.4.2 the <i>Contractor</i> does not remove it from where it is stored except for use on the <i>works</i> , and 70.4.3 the risk of loss or damage to the Plant and Materials remains with the <i>Contractor</i> ."
70.5 Additional clause	Add a new Clause 70.5: "The value of Plant and Materials within the <i>site</i> is excluded from the Price for Work Done to Date unless: 70.5.1 title in the Plant and Materials has already passed to the <i>Client</i> under Clause 70.4, or 70.5.2 the <i>Contractor</i> demonstrates to the satisfaction of the <i>Client's Agent</i> that the <i>Contractor</i> has unencumbered title in the Plant and Materials."
70.6 Additional clause	Add a new Clause 70.6: "The <i>Contractor's</i> title in Plant and Materials passes to the <i>Client</i> when it is brought within the <i>site</i> , but the risk of loss or damage to the Plant and Materials remains with the <i>Contractor</i> ."
70.7 Additional	Add a new Clause 70.7: "The <i>Contractor</i> does not remove Plant and Materials within the <i>site</i> from where it

Clause	Amendment
clause	is stored except for use on the <i>works</i> or with the <i>Client's Agent's</i> permission."
81.1	<p>Delete text of Clause 81.1 and replace with:</p> <p>"The <i>Contractor's</i> total liability to the <i>Client</i> for all matters arising under or in connection with this contract, other than the excluded matters, is limited to 100% of the <i>Prices</i> and applies in contract, tort or delict and otherwise to the extent allowed under the Applicable Law.</p> <p>The excluded matters are amounts payable by the <i>Contractor</i> as stated in this contract for</p> <ul style="list-style-type: none"> • loss of or damage to the <i>works</i>, Plant and Materials and Equipment, • claims and proceedings from others and compensation and costs payable to others which arise from or in connection with the <i>Contractor</i> providing the <i>works</i>, • loss of or damage to the <i>Client's</i> property, • delay damages, • indemnities given under this contract, • claims as a result of any failure by the <i>Contractor</i> to take out and/or maintain insurances and/or any act or omission invalidating or otherwise restricting the entitlement of the <i>Client</i> to receive proceeds pursuant to any insurances; • amounts due on or after termination, and • cases of fraud, deliberate default or reckless misconduct by the <i>Contractor</i>."
82.4	<p>Delete Clause 82.4 and replace with the following:</p> <p>"For any one event, the liability of the <i>Contractor</i> to the <i>Client</i> for loss of or damage to the <i>Client's</i> property is limited to the amount stated in the Contract Data. To the extent permitted by the Applicable Law, neither Party shall be liable to the other for any indirect and/or consequential loss (including, without limitation, such indirect: loss of profit; loss of use; loss of revenues; loss of production; loss of any contract; or loss of savings) that may be suffered by the other Party in connection with this contract, whether caused by breach of contract, breach of statutory duty, tort (including negligence), except in relation to the excluded matters listed at Clause 81.1."</p>
82.5 Additional clause	<p>Add a new Clause 82.5:</p> <p>"If and to the extent that a liability of the <i>Contractor</i> is covered by any insurance policy which the <i>Client</i> or the <i>Contractor</i> is obliged to take out or maintain under this contract, and the <i>Contractor</i> receives proceeds in respect thereof (or would have done so but for any act or omission on the part of the <i>Contractor</i>), the payment of sums equivalent to the proceeds shall not count towards or act to</p>

Clause	Amendment
	reduce the unexpended amount of any limitation of liability (under Clause 81 or otherwise) of the <i>Contractor</i> ."
82.6 Additional clause	Add a new Clause 82.6: "The <i>Contractor's</i> liability in respect of <i>delay damages</i> in accordance with Clause 50.6 shall be limited to £100,000 ."
83.3	In the fourth row, second column delete: "applicable law" and replace with "Applicable Law".
90.2	Delete "insolvent or its equivalent" insert "Insolvent".
90.2A Additional clause	Add a new clause 90.2A "The <i>Client</i> may terminate if the <i>Contractor</i> fails to procure, maintain or replace a [parent company guarantee and / or a performance bond in accordance with Clause 26 [or if the guarantor under the parent company guarantee has become Insolvent] (Reason 1A)."
90.3	In Clause 90.3: At end of first bullet point before: "(Reason 2)" add: "which includes any persistent or material failure".
90.6	After " <i>Contractor</i> " in the first line insert ", or any person employed by the <i>Contractor</i> or acting on his behalf (whether with or without the knowledge of the <i>Contractor</i>),"
91.1	Insert after " <i>works</i> ": "himself or employ other people to do so." Insert at the end: ", makes good the <i>site</i> to the satisfaction of the <i>Client</i> and co-operates with the <i>Client</i> and provides all assistance necessary to enable another person to complete the <i>works</i> ".
92.2	After "1" insert ", 1A"
92.3	Delete Clause 92.3 and replace with: "The receipt of payment set out in this Clause 92 shall be the <i>Contractor's</i> sole and exclusive remedy on termination of this contract."
92.5	Add as new Clause 92.5: "Without prejudice to Clauses 92.1, 92.2, 92.3 and 92.4 and to the extent permitted by the Applicable Law, the <i>Client</i> shall not be liable to the <i>Contractor</i> for loss of profit, loss of any contract or for any indirect or consequential loss or damage

Clause	Amendment
	which may be suffered by the <i>Contractor</i> as a result of termination.”
93	<p>Delete and replace with a new clause as follows:</p> <p>93.1 If a dispute or difference arises in relation to any aspect of this contract, the <i>Contractor</i> and the <i>Client</i> shall consult in good faith in an attempt to come to an agreement in relation to the disputed matter.</p> <p>93.2 Adjudication</p> <p>Notwithstanding any other provision of this contract, the parties each have the right to refer a dispute or difference arising under this contract to adjudication, and either party may at any time give to the other notice in writing of his intention to do so. Any information submitted by the referring party to the adjudicator shall be copied at the same time to the other party. The adjudication shall be conducted under The Technology and Construction Solicitors Association Adjudication Rules current at the time of the referral of the dispute or difference ("TeCSA Adjudication Rules") thereby incorporating the TeCSA Adjudication Rules into this contract.</p> <p>93.3 Arbitration</p> <p>Any claim, dispute or difference arising under or in connection with this contract or its subject matter or formation shall be referred to and finally resolved by arbitration under the LCIA Rules, which are deemed to be incorporated by reference into this clause.</p> <p>Unless otherwise agreed between the Parties, the number of arbitrators shall be one.</p> <p>The seat, or legal place, of the arbitration shall be London, England.</p> <p>The language to be used in the arbitral proceedings shall be English.</p> <p>This arbitration clause shall be governed by and interpreted in accordance with English law.</p> <p>93.4 Joinder</p> <p>Where a dispute or difference between the <i>Client</i> and any other contractor(s) or any other party engaged on the Project (or the operation and maintenance of the Project) is connected to the facts, matters or issues raised in or giving rise to a dispute or difference under this contract (a "Related Dispute") and such dispute or difference under this contract has been referred to adjudication under clause 93.2 or arbitration under clause 93.3, the parties shall, if the <i>Client</i> so requires by written notice to the <i>Contractor</i> (copied to the relevant other contractor(s) or the other party) refer the Related Dispute to the adjudicator or arbitrator(s) (as the case may be) which is hearing the dispute or difference under this contract.</p> <p>93.5 Assistance</p> <p>The <i>Contractor</i> shall give the <i>Client</i> such reasonable assistance as the <i>Client</i> may require in dealing with any claims made against the <i>Client</i> by any other contractor or any other party engaged on the Project (or the operation and maintenance of the Project) except for any proceedings that are subject to dispute resolution</p>

Clause	Amendment
	<p>proceedings under this Contract. Such assistance shall include, without limitation, the provision of information and documentation. To the extent that the provision of such assistance requires the <i>Contractor</i> to provide information or documentation which has not already been generated by the <i>Contractor</i> in the usual course of business in carrying out the Contract, the <i>Client</i> shall reimburse the <i>Contractor</i> for any costs reasonably incurred by the <i>Contractor</i> in providing such assistance. In addition, the <i>Contractor</i> shall make available its personnel to provide witness evidence and the <i>Client</i> shall reimburse the <i>Contractor's</i> reasonable costs of so doing.</p>
<p>Clause Z1</p>	<p>Add as new clause:</p> <p>"Contractor Obligations</p> <p>The <i>Contractor</i> provides the <i>works</i> diligently, in a good and workmanlike manner, using good quality and suitable materials of their respective kinds and in accordance with:</p> <ul style="list-style-type: none"> • the Contract; • Good Industry Practice; • any Licences; • Regulatory Requirements; and • Applicable Law."
<p>Clause Z2</p>	<p>Add as new clause:</p> <p>"Assignment"</p>
<p>Clause Z2.1</p>	<p>Add as new sub-clause:</p> <p>"The <i>Contractor</i> may not assign novate or otherwise transfer any interest in or any rights arising under this contract without the consent of the <i>Client</i>."</p>
<p>Clause Z2.2</p>	<p>Add as new sub-clause:</p> <p>"The <i>Client</i> may assign, charge or transfer his interest in this contract or any rights arising under it at any time without the consent of the <i>Contractor</i>. The <i>Client</i> notifies the <i>Contractor</i> of any such assignment, charge or transfer."</p>
<p>Clause Z2.3</p>	<p>Add as new sub-clause:</p> <p>"The <i>Contractor</i> shall not contend that any person to whom the benefit of the contract is assigned under Clause Z2.2 may not recover any sum under the contract because that person is an assignee and not a named party to the Contract."</p>
<p>Clause Z3</p>	<p>Add as new clause:</p> <p>"Collateral Warranties</p>

Clause	Amendment
	<p>Z3.1 Within 14 days of a request from the <i>Client</i>, the <i>Contractor</i> shall execute and deliver a deed of collateral warranty in favour of any Funder, or any other beneficiary whom the <i>Client</i> may notify to the <i>Contractor</i> from time to time, in the form appended to this contract. In addition to the requirement to provide any deed or deeds of collateral warranty pursuant to this clause, the Contractor shall, within 14 days of a request from the <i>Client</i> execute and deliver a direct agreement in favour of any Funder, in such form as such Funder may reasonably require.</p> <p>Z3.2 Within 21 days of the appointment of any Key Subcontractor (or in the case of a beneficiary which is not the <i>Client</i>, within 21 days of a notice from the <i>Client</i>), the <i>Contractor</i> shall procure that the relevant Key Subcontractor executes and delivers a deed of collateral warranty in favour of (as relevant) the <i>Client</i> and/or any Funder, or any other beneficiary whom the <i>Client</i> may notify to the <i>Contractor</i> from time to time, in the form appended to this contract. The <i>Contractor</i> shall submit to the <i>Client</i> a certified copy of each subcontract with a Key Subcontractor within one week of each such subcontract being entered into (redacting any commercially-sensitive information). In addition to the requirement to provide any deed or deeds of collateral warranty pursuant to this clause, the <i>Contractor</i> shall, within 21 days of a request from the <i>Client</i> procure that any Key Subcontractor executes and delivers a direct agreement in favour of any Funder, in such form as such Funder may reasonably require.</p> <p>Z3.3 In the event of any failure by the <i>Contractor</i> to provide any collateral warranty or direct agreement as required by this Contract, the <i>Client</i> may deduct and withhold all sums due to the Contractor. Such monies may be withheld until such time as the relevant collateral warranty is provided to the <i>Client</i> and notwithstanding the carrying out of or the completion of the <i>works</i>.</p>
Clause Z4	<p>Add as new clause:</p> <p>“Order of Precedence</p> <p>If there is any discrepancy, inconsistency, divergence, ambiguity or anomaly in or between the documents comprising or the provision of the contract, the order of precedence shall be:</p> <ul style="list-style-type: none"> - the Client’s Contract Data; - the additional conditions of contract; - the Scope provided by the Client; - the conditions of contract; - the Contractor’s Contract Data; - the Scope provided by the Contractor - the Price List; - the Site Information; - any other document forming part of the Contract.”

Clause	Amendment
Clause Z5	Add as new clause: "Confidentiality"
Clause Z5.1	Add as new sub-clause: <i>"The Contractor treats the contract and everything in it or connected with it as confidential and shall not give any information regarding the contract to any member of the press or general public without the prior written acceptance of the Client."</i>
Clause Z5.2	Add as new sub-clause: <i>"The Contractor does not use or disclose information concerning the contract obtained either by the Contractor or by any person employed by him except for the purposes of the contract."</i>
Clause Z5.3	Add as new sub-clause: <i>"The Contractor does not (and ensures that its employees and subcontractors do not) use any confidential or proprietary information regarding the contract by it for any purpose other than to provide the works."</i>
Clause Z5.4	Add as new sub-clause: <i>"The Contractor shall also (and shall procure that any third parties it engages in the delivery of the obligations under this Contract shall) at all times comply with: (a) Articles 115 and Annex XII of Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013, as amended; and (b) Chapter II and Annex II of Commission Implementing Regulation (EU) No 821/2014 of 28 July 2014."</i>
Clause Z6	Add as new clause: "Warranties and guarantees" <i>The Contractor will assign the benefit of all product warranties and guarantees as required by the Client including but not limited to those described in the Scope and at the times specified in the Scope."</i>
Clause Z7	Add as new clause : "Notices"
Clause Z7.1	Add as new sub-clause: "Giving of Notices and Payment of Fees" <i>The Contractor shall give all notices and pay all fees required to be given or paid</i>

Clause	Amendment
	by any Applicable Law, Regulatory Requirement or Licence in relation to the execution of any <i>works</i> ."
Clause Z7.2	Add as new sub-clause: "Contractor to Conform with Statutes, etc. The <i>Contractor</i> shall ascertain and conform in all respects with the provisions of any Applicable Law, Regulatory Requirement or Licence."
Clause Z8	Add as new clause: "Nuisance and Trespass"
Clause Z8.1	Add as new sub-clause: "The <i>Contractor</i> shall: <ul style="list-style-type: none"> • at all times prevent any public or private nuisance (including, any nuisance caused by noxious fumes, noisy working operations or the deposit of any material or debris on the public highway) or other interference with the rights of any adjoining or neighbouring landowner, tenant or occupier (including occupiers of completed sections of any <i>works</i>) or any statutory undertaker arising out of the carrying out of the <i>works</i>; • at all times prevent the escape of any dangerous, harmful or damaging substance on any site or from such site and, further, prevent any escape (of whatever nature) which causes any injury, damage or actionable loss; • assist the <i>Client</i> in defending any action or proceedings which may be instituted in relation to such nuisance, interference or escape; and • indemnify the <i>Client</i> from and against any and all expenses, liabilities, losses, claims and proceedings whatsoever resulting from any such nuisance, interference or escape, save and to the extent that such nuisance, interference or escape is caused by or as a result of an instruction of the <i>Client</i>."
Clause Z8.2	Add as new sub-clause: "The <i>Contractor</i> shall ensure that there is no trespass on or over any adjoining or neighbouring property arising out of or in the course of or caused by the carrying out of the <i>works</i> . If the carrying out of the <i>works</i> is likely to necessitate any interference with the rights of adjoining or neighbouring owners or occupiers, the <i>Contractor</i> shall, at the request of the <i>Client</i> and at no cost to the <i>Client</i> , assist the <i>Client</i> in obtaining any prior written agreement of such owners and/or occupiers to such interference."
Z9	Add as new clause: "Professional Indemnity Insurance"

Clause	Amendment
Z9.1	<p>Add a new sub-clause:</p> <p>“Without prejudice to the <i>Contractor’s</i> obligations under this contract, or otherwise at law, the <i>Contractor</i> shall effect and maintain in full force and effect for a period commencing on the date of this contract and expiring no earlier than twelve (12) years from the date of Completion of this contract, professional indemnity insurance with a limit of indemnity of not less than £5 Million for each and every claim in respect of any claims against the <i>Contractor</i> provided that such insurance continues to be available in the insurance market at commercially reasonable premium rates and on commercially reasonable terms. Any increased or additional premium required by reason of the <i>Contractor’s</i> own claims record or other acts, omissions, matters or things particular to the <i>Contractor</i> shall be deemed to be within commercially reasonable rates.”</p>
Z9.2	<p>Add as new sub-clause:</p> <p>“The insurance required by this Clause Z9 is to be maintained with a reputable insurance company or underwriter licensed to carry on business in the United Kingdom and shall not be subject to any material excess or unusual exclusions.”</p>
Z9.3	<p>Add as new sub-clause:</p> <p>“When required to do so by the <i>Client</i>, the <i>Contractor</i> shall provide to the <i>Client</i> satisfactory documentary evidence that the insurance required by this Clause Z9 is being maintained, and the <i>Contractor</i> hereby warrants and undertakes to the <i>Client</i> that, if and when required in order to maintain such insurance in full force and effect, this contract has been or shall be disclosed to the <i>Contractor’s</i> professional indemnity insurers.”</p>
Z9.4	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> shall immediately inform the <i>Client</i> if such insurance ceases to be available at commercially reasonable premium rates and/or on commercially reasonable terms in order that the <i>Client</i> and the <i>Contractor</i> can discuss means of best protecting the respective positions of the <i>Client</i> and the <i>Contractor</i> in the absence of such insurance.”</p>
Z10	<p>Add as new clause:</p> <p>“Contractor Personnel”</p>
Z10.1	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> shall at all relevant times ensure that there is an adequate number of <i>Contractor</i> personnel to provide the <i>works</i> and that the <i>Contractor</i> personnel:</p> <ul style="list-style-type: none"> • have appropriate qualifications, training and expertise and demonstrate suitable competence in carrying out the duties for which they are engaged; • are entitled to work in the UK (or other relevant jurisdiction)

Clause	Amendment
	<p>without contravening any statutory or other legal requirement;</p> <ul style="list-style-type: none"> • shall comply with such policies and security requirements as are notified to the <i>Contractor</i> from time to time; • have satisfied such background and security checks as the <i>Client</i> may require from time to time; • carry out their duties in relation to the provision of <i>works</i> in a professional manner and in accordance with the provisions of this contract.”
Z10.2	<p>Add as new sub-clause:</p> <p>“The <i>Contractor</i> shall maintain up-to-date and adequate personnel records in relation to the <i>Contractor</i> personnel and shall provide to the <i>Client</i> such information or documents as the <i>Client</i> may request from time-to-time to demonstrate that the <i>Contractor</i> personnel satisfy the provisions in Clause Z10.1.”</p>
Z11	<p>Add as new clause:</p> <p>“Interface”</p>
Z11.1	<p>The <i>Contractor</i> warrants that it shall:</p> <ul style="list-style-type: none"> • provide the <i>Client</i> (at the <i>Client's</i> reasonable request) with any calculations, details, drawings, manuals, specifications, layouts, programme related documentation and other documents and information relating to the <i>works</i> and performance of the <i>Contractor's</i> obligations under this contract as the <i>Client</i> may require from time to time, in such format as may be specified in the Scope • co-operate with, co-ordinate with, liaise with and render reasonable assistance to the <i>Client</i>, the <i>Client's</i> Personnel, the <i>Client's</i> other contractors and their subcontractors, advisors and any other persons and parties which the <i>Client</i> may identify to the <i>Contractor</i> from time to time in relation to the co-ordination, integration and interface between (a) the design, programmes, works to be performed by such other contractors, advisors, persons and/or parties and (b) the <i>works</i> and the <i>Contractor's</i> performance of its obligations under this contract. Without prejudice to the other provisions of the contract, the <i>Contractor</i> shall not (and shall procure that his subcontractors of any tier shall not), other than in connection with the proper performance of the <i>Contractor's</i> obligations under the contract, delay, impede and/or hinder any or all of those persons mentioned above in the carrying out of their obligations in respect of the Project. The <i>Contractor</i> shall comply with all reasonable instructions issued by the <i>Client</i> in respect of the coordination, integration and interface of the <i>works</i> and the <i>Contractor's</i> performance of its obligations under this contract with any other goods, <i>works</i> and/or <i>works</i> relating to the Project; • use all reasonable endeavours to ensure that no delay, interruption or interference is caused by the <i>Contractor</i> to the <i>Client</i>, the <i>Client's</i>

Clause	Amendment
	<p>Personnel, the <i>Client's</i> other contractors, advisors and/or any other person or party that the <i>Client</i> may identify to the <i>Contractor</i> from time to time in relation to the <i>works</i> and performance of the <i>Contractor's</i> obligations under this contract;</p> <ul style="list-style-type: none"> • report to the <i>Client</i> at such intervals as identified in the Scope or at such intervals as the <i>Client</i> may reasonably require in relation to the <i>works</i> and the <i>Contractor's</i> performance of its obligations under this contract; • co-operate with the <i>Client</i>, the <i>Client's</i> Personnel, the <i>Client's</i> other contractors, advisors and any other persons and parties which the <i>Client</i> may identify to the <i>Contractor</i> from time to time to ensure the co-ordination of health and safety and environmental matters and shall undertake such measures and provide such reports as the <i>Client</i> may reasonably request from time to time; • comply with any site rules issued by the <i>Client</i> or the <i>Client's</i> Personnel affecting the Site and all health and safety and Regulatory Requirements and not do anything which may cause the <i>Contractor</i> or the <i>Client</i> to contravene them; in particular, but without prejudice to the generality of the preceding sentence, the <i>Contractor</i> shall comply with all Regulatory Requirements relating to the protection of human health and the Environment; and • comply with its obligations under this clause Z11 at its own cost.
Z12	<p>Add as a new Clause:</p> <p>"Joint Ventures</p> <p>If the <i>Contractor</i> is a joint venture of two or more persons, all such persons are jointly and severally bound to the <i>Client</i> for the purposes of this contract. The persons designate one of such persons to act as a partner in charge with authority to bind the joint venture. The composition or the constitution of the joint venture is approved by the <i>Client</i> and is not altered without the prior consent of the <i>Client</i>."</p>
	<p>If the United Kingdom Housing Grants, Construction and Regeneration Act 1996 as amended by the Local Democracy, Economic Development and Construction Act 2009 (the Act) applies to the contract and the additional conditions relating to the Act set out in the contract apply:</p> <p>In Clause 1.1(3) of the additional conditions, delete 'The final date for payment is three weeks after the payment due date' and replace with:</p> <p>"The final date for payment is the date by which payment must be made, as specified in Clause 51.1."</p> <p>In Clause 1.4 replace "seven" with "two".</p>



Section 3

Contract Data Part Two

Contract Data - Part 2

The *Contractor's* Contract Data

The *Contractor* is

Name **[To be inserted]**

Address for Communications **[To be inserted]**

Address for Electronic Communications **[To be inserted]**

The fee percentage is **[To be inserted]** %

The *people* rates are

category of person	unit	rate

The *published list* of Equipment is **[To be inserted]**

The *percentage for adjustment* for Equipment is **[To be inserted]** % (state plus or minus)

Section 4 Price List

Price List

Entries in the first four columns in this Price List are made either by the *Client* or the tenderer.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tenderer enters the amount in the Price column only; the Unit, Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for the item of work which is the rate for the work multiplied by the quantity completed, the tenderer enters the rate which is then multiplied by the expected quantity to produce the Price, which is also entered.

Item number	Description	Unit	Quantity	Rate	Price

The total of the Prices **[To be inserted]**

Section 5

Scope

Scope

Part 1 – Description of the *works*

The Scope of Works is set out in Appendix A of the ITT document – EGL-ITT-C067.

Part 2 – Drawings

As per list in Appendix B

Part 3 – Specifications

List the specifications which apply to the contract.

[These will be listed as per the Scope of Works at Appendix A of EGL-ITT-C067.]

Title	Date or revision	Tick if publicly available
EN253 Pipe system	2019	
EN15698-1 Twin pipes	2019	
EN448 Fittings	2009	
EN488 Valves	2019	
EN489 Joints	2009	
EN13941-1 Design & Installation	2019	
EN14419 Suveillance system	2019	

Part 4 – Constraints on how the *Contractor* Provides the Works

State any constraints on the sequence and timing of work and on the methods and conduct of work including the requirements for any work by the Client.

The contractor shall complete the Works as set out in the Scope of Works, Appendix A of the ITT document: EGL-ITT-C067

Part 5 – Requirements for the programme

A detailed programme showing key dates, tasks and milestones, deliverables, critical path, interdependencies, contingencies, terminal float and finish date and key dates will be required – as set out in Schedule 3 of EGL-ITT-C067. This is to be supplied as a Gantt chart.

The works are to be complete by the finish date of 30th April 2022 as set out in EGL-ITT-C067.

Part 6 – Services and other things provided by the *Client*

Describe what the Client will provide, such as services (including water and electricity) and “free issue” Plant Materials and equipment.

Item	Date by which it will be provided?
Portacabins On the Drilling Site complete with all Services – Water, Electricity, phone, Internet etc.	On commenment of works



Section 6

Site Information

Site Information

Heat Main Detail (sheets 1&2)

Ground Penetration Radar Survey

Eden Site Plan

Imerys Clay pipelines on Eden layout

Heat Main Topographic Survey (sheets 1-3)

Heat Main Topographic ALL 3D

Heat Main Topographic ALL

Section 7 - Appendices

Appendices
The following documents shall be appended to and will form part of this contract.
Appendix I - Risk Register The <i>Contractor</i> shall complete the Risk Register detailing all risks and opportunities which they have made specific allowance for in their price. Such items shall be individually detailed and descriptions shall be clear and unambiguous so that the potential risk can easily be identified and understood. The summation of these risks and opportunities shall be entered into the Price List.
Appendix III – Form of Contractor Collateral Warranty [To be inserted]
Appendix IV – Form of Subcontractor Collateral Warranty [To be inserted]
Appendix V – Form of Parent Company Guarantee [To be inserted]
Appendix VI – Form of Performance Bond [To be inserted]