Tender to supply and install a new 800KVa transformer; UPVC housing; trenching works and connection to the HV main.

Introduction

Bedford College are seeking quotes for the installation of a new 800KVa substation and connections works to the existing live HV ring main. Suitably qualified ICP accredited contractors or an Independent Distribution Network Operator (IDNO) are invited to provide a cost for contestable & non–contestable works.

As the quotation will include contestable connection works then the prospective contractor must be accredited to carry out that category of work under the [National Electricity Registration Scheme (NERS)](https://www.lrqa.com/en-gb/utilities/ners/) that is administered by LRQA Limited.

Site location

Shuttleworth College, Old Warden Park/BIGGLESWADE SG18 9DX. New the attached location plan.

Scope of the works

See the attached design layout plan. To be read in conjunction with scope of works below.

*Section 1 – Contestable Works*

Commercial Services

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| --- |
| Connect and install COP5 LV metering termination cubicle and multicore termination. |
| Fit customer LV cables in UKPN substation |
| Terminate LV cables from ACB |

HV Plant and Switchgear

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| --- |
| Establish an 800kVA unit substation within a GRP Housing. Includes 800kVA transformer, |
| Ring Main Unit, 1600A air circuit breaker, RTU, internal small power/lighting and substation ancillaries. Excludes GRP, civil works and HV/LV jointing. |
| Transport of plant to in normal weekday working hours |

HV Substation Civils

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| --- |
| Install 70mm earth cable |
| Install earth pin (exclusive of cable) |
| Install additional extensible earth rod |
| Supply and fit of a brown GRP substation housing. |
| Supply and installation of a pre-cast secondary substation base suitable for use with a GRP enclosure |
| Install earthing in GRP secondary substation |

HV Underground Mains

|  |
| --- |
| Supply only of 11kV 300mm aluminium Triplex mains cable |
| Install 11kV 300mm aluminium Triplex mains cable in trench. |
| Excavate, lay & reinstate 11kV 300mm aluminium Triplex mains cable in unmade ground. |
| Excavate, lay & reinstate 11kV 300mm aluminium Triplex mains cable in non-adopted access road |
| Excavate & Reinstate 11kV joint hole in unmade ground |
| Install 11kV cable to duct or cable tray |
| Install HV duct including widening surfaced trench |
| 300mm HV indoor end box termination |
| Site induction for Civils team (per 30 mins) |
| Site induction for HV jointing team (per 30 mins) |
| Traffic Management cost |
| 11kV 300mm Triplex to 95-300mm PILC straight joint |

*Section 2 - Contestable Works*

HV Plant and Switchgear

|  |
| --- |
| Commissioning of a Remote Terminal Unit (RTU) |
| Installation & removal of a portable Power Quality Monitoring (PQM) device |
| 11kV outage associated with the provision of an 11kV substation |

HV Underground Mains

|  |
| --- |
| Site induction for an Authorised Person/Senior Authorised Person (per 30mins) • Notification of high voltage shutdown to affected parties |

Miscellaneous

|  |
| --- |
| Legal fees for a Freehold/Leasehold for the establishment of a substation in a new physical location. |

Transactional Charges

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| --- |
| Paid by Bedford College directly to National Grid |

Return of tenders & Form of Tender

Please submit quotes via email to [tenders@bedford.ac.uk](mailto:tenders@bedford.ac.uk) by 12:00 on 13 December 2023.

Please submit the quote on headed paper with the table below included.

*Section 1 – Contestable Works*

|  |  |  |
| --- | --- | --- |
| **Commercial Services** | Cost | |
| Connect and install COP5 LV metering termination cubicle and multicore termination. |  | |
| Fit customer LV cables in UKPN substation |  | |
| Terminate LV cables from ACB |  | |
| **HV Plant and Switchgear** |  |
| Establish an 800kVA unit substation within a GRP Housing. Includes 800kVA transformer, |  |
| Ring Main Unit, 1600A air circuit breaker, RTU, internal small power/lighting and substation ancillaries. Excludes GRP, civil works and HV/LV jointing. |  |
| Transport of plant to in normal weekday working hours |  |
| **HV Substation Civils** |  | |
| Install 70mm earth cable |  | |
| Install earth pin (exclusive of cable) |  | |
| Install additional extensible earth rod |  | |
| Supply and fit of a brown GRP substation housing. |  | |
| Supply and installation of a pre-cast secondary substation base suitable for use with a GRP enclosure |  | |
| Install earthing in GRP secondary substation |  | |
| **HV Underground Mains** |  | |
| Supply only of 11kV 300mm aluminium Triplex mains cable |  | |
| Install 11kV 300mm aluminium Triplex mains cable in trench. |  | |
| Excavate, lay & reinstate 11kV 300mm aluminium Triplex mains cable in unmade ground. |  | |
| Excavate, lay & reinstate 11kV 300mm aluminium Triplex mains cable in non-adopted access road |  | |
| Excavate & Reinstate 11kV joint hole in unmade ground |  | |
| Install 11kV cable to duct or cable tray |  | |
| Install HV duct including widening surfaced trench |  | |
| 300mm HV indoor end box termination |  | |
| Site induction for Civils team (per 30 mins) |  | |
| Site induction for HV jointing team (per 30 mins) |  | |
| Traffic Management cost |  | |
| 11kV 300mm Triplex to 95-300mm PILC straight joint |  | |

*Section 2 - Contestable Works*

|  |  |
| --- | --- |
| **HV Plant and Switchgear** |  |
| Commissioning of a Remote Terminal Unit (RTU) |  |
| Installation & removal of a portable Power Quality Monitoring (PQM) device |  |
| 11kV outage associated with the provision of an 11kV substation |  |
| **HV Underground Mains** |  |

|  |  |  |
| --- | --- | --- |
| Site induction for an Authorised Person/Senior Authorised Person (per 30mins) • Notification of high voltage shutdown to affected parties |  | |
| **Miscellaneous** | |  |
| Legal fees for a Freehold/Leasehold for the establishment of a substation in a new physical location. | |  |

Please state the lead in times and payment terms in the quotation.

The quote shall be deemed to include any third-party fees.

Land rights

Bedford College are tenants for the entire Shuttleworth College site. The site freeholder is The Shuttleworth Trust. This tender is being pr

Program for the works

The works must be completed by 29 March 2024.