Invitation To Tender Part 1 - Stage 2 Feasibility

Scope of Works

|  |  |
| --- | --- |
| Provider Name | [ Complete ] |
| Site/Asset/Project Name | [ Complete ] |
| Submission Date | [ Complete ] |

Contents

[1.1 Introduction 2](#_Toc107397799)

[1.2 Technical Capability 3](#_Toc107397800)

[1.3 Implementation Strategy 5](#_Toc107397801)

[1.4 Commercial Offer for ESR Service 6](#_Toc107397802)

[1.5 Cost of Delivering F2 report 7](#_Toc107397803)

[1.6 List of Appendices / Attachments 8](#_Toc107397804)

1.1 Introduction

Purpose of the F2 Scope

Prior to commencement of an F2 Study and associated F2 Report which takes place during ITT part 2, a scope of works for delivering the report (including costs and programme) must be written by the potential provider and approved by NGESO. The purpose of the F2 Scope is to agree areas of focus for the F2 Study tailored to the needs at potential provider’s site, to ensure completeness of the study, and to facilitate the contractual release of requested funds.

Approach for agreeing the F2 Scope

On a case-by-case basis all scopes for F2 studies will need to be discussed and agreed individually between NGESO and the potential ESR Service Provider, due to the differing characteristics of the potential ESR Service Providers’ equipment/plant.

Nonetheless, on submission of each F2 Report, NGESO requires sufficient information to evaluate the proposed offer technically and commercially for a Restoration service.

Instructions

Each of the tables below include the requirements for each section of the F2 Report. Please use the empty ‘Provider Response’ cells to explain how you plan to undertake each section of the F2 Report.

* 1. Technical Capability

1.2.1 Confirmation of Capability – ESR Service

|  |  |
| --- | --- |
| Requirement | The full F2 Report submitted by the tenderer shall confirm (backed up with physical, simulated and/or written evidence) the ESR capability of the equipment/Plant to meet the technical requirements. |
| Contents | Where applicable.   * Confirmation of Capability – OEM Report, if required (further details under 1.2.2); * Confirmation of capability of the (overall) ESR Service:  1. ESR capability, operation and control of the equipment/Plant; 2. Start-up power requirements and related profile, with any peak requirements; 3. Time to Connect (if variable, e.g., warmth state, detail accordingly); 4. Start-up sequence in ESR mode (if variable, e.g., warmth state, detail accordingly); 5. Resilience of supply – ESR Service (≥10h at contracted output); 6. Ability of the equipment/Plant to meet the ≥90% availability requirement. |
| Provider Response |  |

* + 1. Confirmation of Capability – OEM Report

|  |  |
| --- | --- |
| Requirement | Dedicated report developed/issued by the relevant OEM confirming ESR capability of the equipment/Plant (backed up with physical or simulated evidence). |
| Contents | Report developed/issued by the OEM including and detailing, as a minimum:   * Confirmation of restoration Capability, Operation and Control of the relevant OEM’s equipment. * Where applicable (\*):  1. Start-up power requirements and related profile, with any peak requirements. 2. Time to Connect and start-up sequence in ESR mode (if variable, e.g. warmth state, detail accordingly); 3. Energisation:  * Reactive capability at various load points, including initial energisation. * Any constraints around the energisation stage, namely the ability to withstand at (MVAr>0 lead, MW=0 export);  1. Block Loading:  * Profile, full range: size of blocks, number of blocks, time(s) between blocks, any hold points/constraints. * Requirements to achieve the Minimum Stable Operating Level. * Any variation(s) due to equipment status, output level or energy/fuel supplies.  1. Any differences between modules.  * Reference list for similar main equipment/Plant undertaking ESR provision.   *(\*) OEM’s equipment.* |
| Provider Response |  |

* + 1. Confirmation of Capability – ESR Auxiliary Unit(s)

|  |  |
| --- | --- |
| Requirement | The full F2 Report submitted by the tenderer shall confirm (backed up with physical, simulated and/or written evidence) the ESR capability of the ESR Auxiliary Unit(s). |
| Contents | Where applicable   * Capability to start without external supplies and provide sufficient power output to enable the delivery of the contracted service. * Start-up times, reliability, and availability. * Resilience of supply (run continuously for ≥3 days); * Auxiliary Single Line Diagram. |
| Provider Response |  |

* + 1. ESR Operation

|  |  |
| --- | --- |
| Requirement | The full F2 Report submitted by the tenderer shall include, backed up with physical, simulated and/or written evidence, the details around how will the ESR Service be delivered. |
| Contents | Where applicable,   * Conceptual design, control philosophy, supporting study work and any physical testing requirements to confirm capability. * Control Room and Plant staffing summary and review to achieve the 24h availability of the Service. * System’s resilience review noting Telecommunication and system’s resilience to a blackout event, and their physical location. |
| Provider Response |  |

* + 1. ESR Equipment Schedules (Existing and New)

|  |  |
| --- | --- |
| Requirement | The full F2 Report submitted by the tenderer shall include, backed up with physical, simulated and/or written evidence, the details around the works / physical adaptations / equipment / assessments needed to deliver the ESR Service. |
| Contents | * Existing to include assessment of fitness for purpose and any modifications required. * New to include general specifications and scope. * Civil installations required. * Balance of Plant General Arrangements. * Single Line Diagrams.   Typically includes Auxiliary generation and starting equipment, electrical interconnections, fuel system, Main and Aux control systems, protection – energising and synchronising systems. |
| Provider Response |  |

* 1. Implementation Strategy

|  |  |
| --- | --- |
| Requirement | To include an implementation strategy in the F2 report. |
| Contents | * Build/Install programme plan, including the steps and timelines for the following * Consents * Purchasing * Commissioning * Outage requirements * Consents - Please explain what will be required, and how ~~you~~ will ensure that at the time of F2 report submission, you will be confident that any necessary consents or permits will be in place in order to achieve the delivery timeline. * Operation and Maintenance Strategy * Risks |
| Provider Response |  |

* 1. Commercial Offer for ESR Service

|  |  |
| --- | --- |
| Requirement | The F2 Report shall include a full and detailed breakdown of all costs included in the commercial offer for the provision of restoration services for the Tender Category you have tendered in for.  ESO reserves the right to employ consultants to evaluate the designs and cost structures as part of the tender and may provide pricing schedule templates later in the process (but before commencement of F2 studies). Areas expected to be covered: |
| Contents | * Project Development; * Main Equipment; * Construction; * Monthly Availability Fee; * Service Readiness strategy (Commercially viable runs, preparedness capability, etc.). |
| Provider Response |  |

* 1. Cost of Delivering F2 report

|  |  |
| --- | --- |
| Requirement | ESO will agree a capped contribution to cover costs associated with the F2 Report. Providers are expected to minimise these costs to reduce the impact on the end consumer and will only be reimbursed for costs once invoices and supporting evidence of costs incurred are received and validated by ESO. Costs will be reimbursable following closure of the F2 assessment period and following satisfactory responses to all clarifications being issued by ESO during the assessment period. |
| Contents | Please provide detailed breakdown of costs of delivering the F2 Report. |
| Provider Response |  |

1.6 List of Appendices / Attachments

|  |  |  |
| --- | --- | --- |
| **Appendix**  **Num.** | Document | File name as submitted |
| **1** |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Please list document titles of any associated attachments.





Faraday House, Warwick Technology Park,  
Gallows Hill, Warwick, CV346DA

nationalgrideso.com