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**Network-as-a-Service Runbook**

**Site Construction RFI/RFP Template**

**(Draft)**

**<NaaS Operator’s Name>**

**

*<Release Date>*

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# Document Control

- Revision Control sheet allows to maintain a record of changes made on the document.

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| --- | --- | --- | --- |
| Version N° | Issue Date | Status | Reasons for Change |
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Table 1. Revision History

# Disclaimer

Nothing in this Request for Proposal (the "RFP") shall be construed to create any legal obligation on the part of Naas Operator, or any other related entity or person; or the respondent to this RFP. This RFP does not convey a commitment to award a contract or to bind the Tenderer. The successful Tenderer will be required to execute an agreement with NaaS Operator that will govern the rights, duties and obligations between NaaS Operator and such successful Tenderer.

NaaS Operator reserves the right, in its sole discretion, to amend, suspend, terminate, or reissue this RFP in whole or in part, at any stage. In no event shall NaaS Operator or any of its affiliates, employees or representatives be liable to the Tenderer for any cost or damages incurred in connection with this RFP process including, but not limited to costs of preparing a response to this RFP or any other costs incurred in reliance on this RFP. For the avoidance of doubt, no Tenderer shall be entitled to payment from NaaS Operator or any other related entity for any costs, expenses or fees related to this RFP. All supporting documentation submitted in response to this RFP will become the property of NaaS Operator. A Tenderer may also withdraw its interest in this RFP in writing, at any point in time, as more information becomes known to it. NaaS Operator is not bound to accept, nor to provide any reason for rejecting a Tenderer’s proposal.

# Confidentiality

Please note that, by responding to this RFP, you agree to hold the information presented in this RFP, including any information that is subsequently disclosed by NaaS Operator or any of its Representatives during the proposal process, in strict confidence. In addition, you agree that you will not disclose, reproduce or distribute any such information in whole or in part, directly or indirectly, (or permit any of the foregoing) to any persons, other than to your Representatives to the extent that such disclosure, reproduction or distribution is strictly necessary for the purposes of submitting a response to this RFP.

You further agree that neither you nor any of your Representatives will, without the prior written consent of NaaS Operator, use any information provided in this RFP for any purpose other than for the submission of a response to this RFP and that neither you nor any of your Representatives will make, permit or assist any other person to make any public announcement in relation to the contents of this RFP.

The involvement of any third party in preparation of a response to this RFP shall be agreed upon in advance with NaaS Operator, without prejudice to your obligations herein, and such third party shall be required to sign a non-disclosure agreement with NaaS Operator prior to participating in the preparation of a response to this RFP.

For purposes of this clause, a "Representative" shall mean the Tenderer’s affiliates, directors, officers, employees, agents, contractors and advisers.

# Information for Bidders

## Introduction

NaaS Operator is in the process of designing, building, deploying, operating and maintaining a Mobile network in the geographical area specified in the section 3.3.

The purpose of this RFP is to solicit Bid Proposals for Site Construction solutions, including both procurement of required construction components as well as services to execute construction services.

The intent of this RFP is to award a contract to the bidder whose bid proposal is considered as more valuable for the NaaS Operator according to technical, price and other factors which will be evaluated.

## Objectives of RFP / Statement of purpose

The objective of the Site Construction RFP is to obtain information and proposals from potential Vendors that can provide the Site Construction solutions and the Site Construction Services described in the Scope of Work (section 4).

The engagement model that the NaaS Operator is pursuing is a turnkey solution which will include the procurement of the construction components and the construction services to deploy the required RAN Sites.

Received proposals will be evaluated by the NaaS Operator with the final objective to select one or several partners. The proposals will be evaluated both from a pricing and a technical point of view.

## Background information: Geographical Area of Interest

The current RFP document aims to select Vendors for Site Construction Solutions and Site Construction Services for the following Geographical Areas:

* NaaS Operator will include here the list of Geographical Areas and Geographical maps identifying the Areas of Interest.

## RFP Schedule and Timelines

This section defines the relevant dates affecting the RFP process. Contractors must deliver their responses and the Naas Operator must complete the process phases according to this schedule. Contractors may request and justify extensions when required to produce a better response. If accepted by the NaaS Operator, the extension shall be applicable to all contractors.

| RFx Milestone | Content | Date |
| --- | --- | --- |
| RFx Submitted to Respondents | RFx sent to potential Respondents | RFx Start Date |
| Acknowledgement of RFx Process | Respondents to confirm intention to respond | +2 days |
| Vendor Prequalification Submission (refer to section 5.2.5.1) | Respondents send prequalification form | +2 weeks |
| Vendor Prequalification Response | Naas Operator confirms or drops invitation to respond | +1 week |
| Contractor Query Submission  (refer to section 3.5) | Respondents send questions related to the RFx | +2 weeks |
| Contractor Query Response | Naas Operator provides responses to questions | +1 week |
| Proposal Submission | Respondents submit their proposals | +2 weeks |
| Contractor Selection | Naas Operator defines short list of Respondents | +2 weeks |
| Contract Negotiation | Contract negotiation begins with preferred Respondent | +1 week |
| Contract Sign-off | Contract is signed | +2 weeks |
| Project Kick-Off Meeting | Project initiation meeting | + 2 weeks |
| Project Work Begins | On-site Project commences | + 2 weeks |

## RFP queries

The proponent may submit queries regarding any part of this RFP before the corresponding deadline established in the RFP Schedule and Timelines in 3.4.

The queries shall be submitted using the attached Excel spreadsheet including the following columns, in the specified order:

* RFP Document
* RFP Section and Page
* Paragraph Number
* Question
* NaaS Operator response

NaaS Operator can use for this purpose the RFx Tender Queries template (template G) provided with this module.

## Point Of Contact

Any questions in relation to this RFP shall be sent by email uniquely to the contacts below referencing the ***Tender number and Title*** in the subject line:

|  |  |
| --- | --- |
| Name: | Email: |
| NaaS Operator Contract Manager |  |
|  |  |

## RFP Terms and Conditions

Without prejudice to any terms and conditions subsequently agreed between NaaS Operator and the successful Tenderer, the following general terms and conditions will govern the engagement with the Tenderer:

* + - The official language of the project is English; thus, all final deliverables shall be submitted in English unless otherwise agreed in writing by NaaS Operator.
    - The Tenderer commits to protect the confidentiality of information relating to the services provided, in accordance with the signed Non-Disclosure Agreement ("NDA") with NaaS Operator.
    - The Tenderer shall not employ this document in any form or capacity that is damaging to NaaS Operator.
    - NaaS Operator reserves the right to accept or reject any or all the proposals, and to amend this RFP, request the re-submission of proposals, request clarifications from the Tenderer(s), or withdraw this RFP in part or in whole without providing justification or notice.
    - Any responses or comments received from the Tenderer(s) after the submission of the RFP or the deadline of submission will not be considered, unless explicitly requested by NaaS Operator.
    - The Tenderer shall disclose any conflicts of interest that exist or expected to arise during the undertaken project(s), including conflicts related to the firm's leadership and team members.
    - NaaS Operator reserves the right to require the Tenderer to replace a specific member of the project team due to lack of performance and/or requisite competency.
    - NaaS Operator reserves the right to request an interview with proposed team members prior to awarding the project to the Tenderer(s).
    - NaaS Operator reserves the right to suspend and/or cancel the project if any unlawful practices or unethical activities carried out by the Tenderer(s) were discovered, including (but not limited to) gifts, kick-backs, and commissions, that can impact the course of the bidding process/project.
    - All the project deliverables and outcomes shall be submitted with an official form that is approved by both parties and signed by the authorised personnel.
    - NaaS Operator reserves the right to seek retribution in the event of non-compliance by the Tenderer(s) with any of the general terms listed in this RFP or the signed Non-Disclosure agreement. Such retribution may include but is not limited to suspension of all works and services being rendered, as well as financial and/or legal compensation.
    - NaaS Operator reserves the right to invite Tenderers to present their proposal at its headquarters without reimbursing any costs related to this exercise to the Tenderers.

## Additional Information

### Revisions to the RFP

The NaaS Operator reserves the right to modify the terms of the RFP at any time prior to the closing date and time, including the right to cancel the RFP at any time prior to entering into a contract with a proponent. In such case, Proponents shall be notified of the modifications, and the RFP Schedule shall be updated accordingly.

### Cost Liability

In no event shall NaaS Operator or any of its affiliates, employees or representatives be liable to the Tenderer for any cost or damages incurred in connection with this RFP process including, but not limited to costs of preparing a response to this RFP or any other costs incurred in reliance on this RFP. For the avoidance of doubt, no Tenderer shall be entitled to payment from NaaS Operator or any other related entity for any costs, expenses or fees related to this RFP.

### Joint Venture

If a joint venture is submitting a bid proposal, the agreement between the parties relating to such joint venture should be submitted with the joint venture’s bid proposal. Authorized signatures from each party comprising the joint venture must sign the bid proposal. Separate documentation will be requested to each party of the joint venture including Non-Disclosure Agreement, Company Organization and Experience and other information as required by the NaaS Operator.

### Price Alteration

Failure to initial price changes shall preclude a contract award from being made to the bidder.

### Bid Errors

A bidder may request that its bid be withdrawn before contract award. Such request must be made, in writing, to the NaaS Operator Point Of Contact provided in 3.6. If the request is granted, the bidder may submit a revised bid as long as the bid is received prior to the announced date.

If during a bid evaluation process, an obvious pricing error made by a potential contract awardee is found, a written notice to the bidder will be issued. The bidder will have five (5) days after receipt of the notice to confirm its pricing. If the vendor fails to respond, its bid shall be considered withdrawn, and no further consideration shall be given to it.

If it is discovered that there is an arithmetic disparity between the unit price and the total extended price, the unit price shall prevail. If there is any other ambiguity in the pricing other than a disparity between the unit price and extended price and the bidder’s intention is not readily discernible from other parts of the bid proposal, NaaS Operator may seek clarification from the bidder to ascertain the true intent of the bid.

# Scope Of Work

The Scope of this Site Construction RFP is to select Vendors which will provide a turnkey solution for the following scope: Procurement of Site Construction Solutions and Site Construction/Build Services.

## Technical Requirements

### Site Construction Solutions

The main objective of the Site Construction Solution section of the RFP is to obtain proposals from Vendors for a set of predefined site solutions that may fit in most of the sites for the geographical area of interest, as well to obtain alternative site solutions proposed from Vendors.

The Bidder is requested to provide Proposals for the Site Configurations described in this section.

* **Site Configuration#1**: Monopole Omnidirectional Type1

|  |  |  |
| --- | --- | --- |
| **Site Configuration#1** | **Infrastructure** | |
|  | Tower Type | Monopole (with security step bolts) |
| Tower Height | 7m |
| Antenna Type | Omnidirectional |
| RRU location | Tower or pole installation |
| BBU Location | Mount for Outdoor BBU equipment (tower or pole installation) |
| Backhaul | MW or VSAT |
| Backhaul location | Full Outdoor (Tower or pole installation) |
| Power | Mount for Solar Panel (Tower or pole installation) |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Mounting structure | Include mounting structures for 1 omni RF antenna + 1 RRU + 1 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Site Fencing | Site Fencing for 16m2 |

* **Site Configuration#2**: Monopole Omnidirectional Type2

|  |  |  |
| --- | --- | --- |
| **Site Configuration#2** | **Infrastructure** | |
|  | Tower Type | Monopole (with security step bolts) |
| Tower Height | 15m |
| Antenna Type | Omnidirectional |
| RRU location | Tower or pole installation |
| BBU Location | Mount for Outdoor BBU equipment (tower or pole installation) |
| Backhaul | MW or VSAT |
| Backhaul location | Full Outdoor (Tower or pole installation) |
| Power | Mount for Solar Panel (Tower or pole installation) |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Mounting structure | Include mounting structures for 1 omni RF antenna + 1 RRU + 1 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Site Fencing | Site Fencing for 25m2 |

* **Site Configuration#3**: Monopole Sector Type1

|  |  |  |
| --- | --- | --- |
| **Site Configuration#3** | **Infrastructure** | |
|  | Tower Type | Monopole (with security step bolts) |
| Tower Height | 20m |
| Antenna Type | 3 Directional Antenna (3 sectors) |
| RRU location | Tower or pole installation |
| BBU Location | Mount for Outdoor BBU equipment (tower or pole installation) |
| Backhaul | MW or VSAT |
| Backhaul location | Full Outdoor (Tower or pole installation) |
| Power | Mount for Solar Panel (Tower or pole installation) |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Mounting structure | Include mounting structures for 3 sector RF antenna (3 pipes of 3m) + 3 RRU + 3 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Site Fencing | Site Fencing for 25m2 |

* **Site Configuration#4**: Self-Supported Omnidirectional Type1

|  |  |  |
| --- | --- | --- |
| **Site Configuration#4** | **Infrastructure** | |
|  | Tower Type | Self Supported Tower, with 3-leg angular sections (with attached safety ladder) |
| Tower Height | 30m |
| Antenna Type | Omnidirectional |
| RRU location | Tower or pole installation |
| BBU Location | Mount for Outdoor BBU equipment (tower or pole installation) |
| Backhaul | MW or VSAT |
| Backhaul location | Full Outdoor (Tower or pole installation) |
| Power | Mount for Solar Panel (Tower or pole installation) |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Mounting structure | Include mounting structures for 1 omni RF antenna + 1 RRU + 1 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Site Fencing | Site Fencing for 25m2 |

* **Site Configuration#5**: Self-Supported Sector Type1

|  |  |  |
| --- | --- | --- |
| **Site Configuration#5** | **Infrastructure** | |
|  | Tower Type | Self Supported Tower, with 3-leg angular sections (with attached safety ladder) |
| Tower Height | 30m |
| Antenna Type | 3 Directional Antenna (3 sectors) |
| RRU location | Tower or pole installation |
| BBU Location | Foundation for Outdoor Cabinets: 1 Telecom cabinet + 1 Battery cabinet |
| Backhaul | MW or VSAT |
| Backhaul location | Full Outdoor (Tower or pole installation) |
| Power | Mount for Solar Panel (Tower or pole installation) |
| Battery | Outdoor Cabinet for Lithium Battery Pack (6 hrs) (ground installation: 1 Telecom cabinet + 1 Battery cabinet) |
| Foundation | Foundation of 2mx1m (0.20 depth) for outdoor cabinets |
| Mounting structure | Include mounting structures for 3 sector RF antenna (3 pipes of 3m) + 3 RRU + 3 BBU + Solar Panel + 1 MW or VSAT antenna |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Site Fencing | Site Fencing for 40m2 |

* **Site Configuration#6**: Rooftop Site – Collocation

|  |  |  |
| --- | --- | --- |
| **Site Configuration#6** | **Infrastructure** | |
|  | Tower Type | Supply and install 3 RF pipes and 1 MW pipe (2.5m each) to be installed on existing poles, masts, guyed tower, etc. |
| Tower Height | Existing building |
| Antenna Type | 3 Directional Antenna (3 sectors) |
| RRU location | RRU in 3 RF supports on existing poles, masts, guyed tower, etc. |
| BBU Location | Outdoor Cabinets: Include metallic platform for the AC/DC cabinet and equipment cabinet (2mx2m); Include Metallic frame for the AC/DC cabinet |
| Backhaul | MW |
| Backhaul location | Supply one MW antenna support (2.5m) on existing poles, masts, guyed tower, etc. |
| Power | Power supply to the cabinet from the existing switchboard (5m conduit) and installation of a circuit breaker for feeder protection |
| Battery | Outdoor Cabinet for Lithium Battery Pack (6 hrs) (installed in AC/DC cabinet) |
| Mounting structure | Include mounting structures for 3 sector RF antenna (3 pipes of 2.5m) + 3 RRU + 1 MW antenna |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |

* **Site Configuration#7**: Rooftop Site – New

|  |  |  |
| --- | --- | --- |
| **Site Configuration#5** | **Infrastructure** | |
|  | Tower Type | 4 masts of 3m height (3RF + 1MW) |
| Tower Height | 4 masts and supports of 3m height (3RF + 1MW) |
| Antenna Type | 3 Directional Antenna (3 sectors) |
| RRU location | In the antenna masts |
| BBU Location | Outdoor Cabinets: Include metallic platform for the AC/DC cabinet and equipment cabinet (2mx2m); Include Metallic frame for the AC/DC cabinet |
| Backhaul | MW |
| Backhaul location | Supply one MW antenna support on new mast |
| Power | Connection to the AC building power, supplying and installing a meter, switchboard, conduits and AC power cable until the equipment. |
| Battery | Outdoor Cabinet for Lithium Battery Pack (6 hrs) (installed in AC/DC cabinet) |
| Mounting structure | Include mounting structures for 3 sector RF antenna (3 pipes of 2.5m) + 3 RRU + 1 MW antenna |
| Grounding | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |

* **Alternative Rural Site Solutions**:

Additionally, the vendor is required to propose innovative low cost RAN and Backhaul configuration to solve rural coverage in locations including rural places, small towns and villages. The configuration should use a minimum amount of hardware to reduce space, power consumption and cost per site.

The solutions could include any innovative technology the Vendor have in its current or near future (Max. 6 months) product line.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Towers

Vendors will be responsible to provide the Site Towers solutions specified in this document (monopole towers, self-structured towers).

Vendors will be responsible for all construction elements required for the proper erection of the tower at the site location including:

* + - Tower construction and Tower transportation to the site location
    - On-Site tower work (bolting or welding of tower section when required)
    - Terrain preparation including required foundation work
    - Tower erection, including the usage of cranes or any other required machinery

Vendor is responsible to ensure that the towers comply with local construction regulations and safety standards.

Vendors are required to provide Technical Specifications for the proposed tower construction components (for the site solutions in this RFP), including Design specifications:

* + - Tower design
      * Vendor is responsible to ensure that all antenna support systems comply with all local construction regulations, codes and safety standards.
      * Vendor will provide certificate of tower design approval by Professional Engineer.
      * Vendor will provide Fabrication conformance certificate, including material certificates for all materials used for tower construction and erection.
      * Towers shall be designed according to TIA/EIA-222-H or equivalent standard.
      * Indication of basic wind speed considered in the design (default: 160 kph)
      * Indication of design maximum twist (default: 0.5 degrees)
      * All Tower elements will be Hot Dipped Galvanized
      * Towers will include grounding and safety components as described in the corresponding sections of this RFP.
      * Towers will include Obstruction/Aircraft Warning System Lights.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Equipment Shelter

Vendors will be responsible to provide all construction elements required to shelter Equipment. This will include:

* + - Outdoor Cabinets and Outdoor Shelters solutions. These Cabinets may be required for Telecom equipment, Battery racks, Power equipment.
    - Adequation of Building Equipment Rooms (only in the case of Urban Building Sites)
    - Construction Elements required for the proper erection of the Equipment shelter including:
      * + Shelter construction and transportation to the site location
        + Supply and installation of shelter mounting kits for shelter requirements
        + Supply and installation of equipment platforms when required
        + Terrain preparation including foundation work if required
    - Equipment shelter erection, including the usage of cranes or any other required machinery

Vendors are required to provide Equipment Specifications for the proposed shelter construction components (for the site solutions in this RFP).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Tower and Rooftop antenna and equipment mounts

Vendors will be responsible for the supply, transportation and installation of required mounting construction components for RAN equipment, Transmission Equipment, Power equipment and others. This will include:

* + - Tower Antenna mounting structures (support arms, pipes, etc)
    - Rooftop Antenna mounting structures (frames, wall mounts, etc.)
    - Mounting structures for RAN and Transport equipment in Tower or rooftop sites (RRUs, BBUs, MW Antennas, Satellite antennas, solar panels, battery enclosures)

Vendors are required to provide Equipment Specifications for the proposed mounting construction components (for the site solutions in this RFP).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Power Construction Requirements

Vendors will be responsible for the supply, transportation and installation of Power construction elements including:

* + - Construction components for power on-grid sites: conduits, pipelines, registers
    - Construction components for solar power sites: Mounts for tower solar panels, ground platforms and ground foundations for solar panel installations when required.
    - Construction components for battery power solutions, including tower poles and enclosures for low battery requirements and platforms and/or foundations and cabinets for high battery requirements.

Vendors are required to provide Equipment Specifications for the proposed Power construction components (for the site solutions in this RFP).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
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#### Cabling Construction Requirements

Vendors will be responsible for the supply, transportation and installation of all required site cabling solutions. This will include cabling requirements between equipment in the shelter and equipment in the tower or roof mounts, as well as cabling requirements for equipment with both end-sides in the tower. It will include both outdoor as indoor (if applies) requirements:

* + - Cable Ladders
    - Waveguide bridges
    - Cable hangers

Vendors are required to provide Equipment Specifications for the proposed Cable Management construction components (for the site solutions in this RFP).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Grounding Construction Requirements

Vendors will be responsible for the supply, transportation and installation of all required construction components for the proper grounding of the Site installation. This will include:

* + - Grounding Rods and grounding wires
    - Buss Bar kits
    - Brackets and clamps
    - Lightning Rod

Vendors are required to provide Equipment Specifications for the proposed Grounding and Lightning construction components (for the site solutions in this RFP).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Safety Construction Requirements

Site construction will consider the placement of required climbing facilities including safety climb devices.

Vendor will describe the considered safety construction components for the Site Configurations described in the Scope of Work of this RFP.

Climbing facilities should be in accordance to standard ANSI/TIA-222-H.

ANSI/TIA-222-H provides the minimum requirements for the design and construction of fixed ladders, safety devices, climber attachment anchorages, platform and cages used for climbing and working on communication structures.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

### Construction Services

NaaS Operator aims to engage in a Construction turnkey solution which includes the following services:

* + - **Project Management Services:** Vendor will be responsible for the planning, execution and control of the construction activities for the Sites assigned by NaaS.
    - **Technical Site Survey Services:** Vendor will be responsible to execute Technical Site Surveys and find the proper Site Solution Design for the assigned Sites.
    - **Engineering Analysis Services:** Vendor will be responsible for conduction structural engineering analysis when/if required by NaaS and will be responsible to generate the Site Engineering document for the assigned Sites.
    - **Construction Services:** Vendor will be responsible for construction services for assigned sites, including Greenfield sites as well as adaptation of existing sites when required.

#### Project Management Services

Site Construction Vendor will be responsible to implement project management procedures to ensure proper and timely execution of the deployment of assigned Sites.

The overall Project Plan will be defined as per NaaS requirements. Vendor’s Project Management team will consider the availability of own resources and subcontractor´s capacity to achieve these requirements.

Vendor will be responsible for updating required information in NaaS Operator management system.

Vendor will be responsible for providing all required documentation during Site construction and to upload the required documentation in NaaS Operator document repository (refer to section 4.1.6).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Technical Site Survey Services / Site Solution Design

Vendor will be responsible to conduct Technical Site Surveys in the designated Site locations. The objective of the Technical Site Survey will be to determine the best Site Solution Design for the specific Site, considering the inputs from Engineering Teams and Site Acquisition teams.

Vendor will be responsible to complete and document the Site Survey Report template (template A) as provided by NaaS Operator.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Engineering Analysis Services and Site Documentation

Vendor will be responsible for providing engineering services including structural analyses and generation of Site Engineering document (i.e. construction drawings) and “As built” documentation.

Documentation to be provided per Site will include:

* + Certificate of tower design (including Tower Load Analysis) approval by Professional Engineer
  + General Layout and foundation support structure drawings.
  + Fabrication conformance certificate (including material certificates)
  + As‐Built documentation
  + Certificate of Conformance of tower installation to Engineer's requirements.

As-built document will include the following:

* + General assembly drawings of As‐built structure
  + Factory release certificate containing part ID and conformation declaration.
  + Engineer's certificate certifying the design.
  + Warranty statement.
  + Erection QCP (Quality Control Procedure)
  + Tower release inspection, final product and erection tolerance
  + Photo page: (date stamped and verified)
  + Foundation prior to concrete pouring
  + Cast foundation (showing foundation and plinth/s)
  + Erected tower
  + Whole height of the tower
  + Base plates anchor bolts and grounding connections
  + Climbing ladder (or other applicable climbing solution)
  + Working platform
  + Obstruction Light

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Greenfield Site Construction (Build to Suit Services)

Vendor will be responsible for providing End-to-end construction services including equipment/material procurement, preconstruction staging, quality and safety management, and civil/electrical/mechanical work to build new sites for Equipment installation.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Existing Site Adaptation

Vendor is responsible for providing construction services for existing site adaptation and collocation sites, performing civil works as required, construction management (including the furnishing of all Equipment, which shall include field supplies, tools, construction equipment, and all Site supervision and craft labor), inspection and quality control services required to ensure that the Work is performed in accordance with NaaS requirements.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

#### Construction Site Acceptance

Vendor may be requested by NaaS Operator to attend Site Acceptance activities that could be conducted to review the construction status after all construction works have been finalized as per Construction Vendor notification. Under reception of such notification from Construction Vendor, NaaS Operator representative will conduct a Site Condition Assessment utilizing a Site Condition Assessment Checklist. This Checklist will be used to indicate any possible punch items that need to be fixed by the Site Construction Vendor.

Once Construction Vendor has fixed all items in the punchlist and notify to NaaS Operator, providing all support means to certify it, NaaS Operator will issue the Construction Site Acceptance certification.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

### Reference Standards

The following are reference Standards to be followed by Site Construction Vendor for the purposes of the scope of the present document. Vendor should be asked to provide information of other recognized standards applicable for the purpose of this RFP.

* + ANSI/TIA-222-H: Structural Standard for Antenna Supporting Structures and Antennas
  + BS EN 1993-3-1:2006: Eurocode 3. Design of steel structures. Towers, masts and chimneys. Towers and masts
  + BS EN 1992-1-1:2004+A1:2014: Eurocode 2: Design of concrete structures. General rules and rules for buildings
  + ASCE 10-97: Design of Latticed Steel Transmission Structures
  + AS 3995-1994: Design of steel lattice towers and masts

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

### Health and Safety Requirements

It is the responsibility of the contractor to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to build works commencement.

It is the responsibility of the contractor to ensure that all team members and supervisors are trained and familiar with applicable safe working practices, and that they take immediate and decisive action when safe and approved work methods are not followed.

Security guidelines in the construction process will include:

* Work area fencing: Site fencing could be used to restrict access to the Site area to persons not related with the construction works.
* Access and internal circulation: Contractor will determine the access points to the construction area, which will be utilized for supply (trucks and others). Contractor will be responsible to install construction signs including “Prohibited access”, “Helmet usage is mandatory”, “Fall protection system usage is mandatory”, etc. Access will always be free of obstacles.

It is the responsibility of the supervisors to ensure that each member of his team wears and uses the required personal protection equipment and to ensure that the work area is protected by the use of the necessary signs, cones, etc. Personal protection equipment will include:

* compulsory use of an approved seat belt
* compulsory use of an approved helmet
* Anti-nail reinforced footwear
* Rubber gloves and boots during concrete work
* Suitable work clothes according to weather conditions
* Compulsory use of fall protection system
* Electrical Installations:
  + Connections will be performed without voltage
  + Insulating and safety helmet
  + Leather gloves

Contractor will be responsible to include in the Site Engineering Document all Health and Safety Requirements which will be enforced during Site Construction.

Contractor is required to fill in the EHS (Environmental Health and Safety) section of the Vendor pre-qualification form supplied in section 5.2.5.1

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

### Environmental Requirements

Contractor will adopt all applicable legislation with respect to Environmental Management. This will include management plans for all the waste and residues generated during Site Construction.

The plan will contemplate the management of the following residues:

|  |  |
| --- | --- |
| Residue | Procedence |
| Earth and Excavation Material | Excavation Civil works |
| Concrete residues | Tower and shelter foundation works |
| Packaging remains | All utilized materials |
| Equipment batteries | Use of temporary electrical power |
| Paper and Cardboards | Equipment packaging |
| Plastics and aluminum cans | Packaging |
| Electronic residues: cables, boards, etc | Equipment installation |

Contractor will be responsible to include in Site Engineering document all the information related to the plan to manage all the residues generated during Site Construction.

Contractor is required to fill in the EHS (Environmental Health and Safety) section of the Vendor pre-qualification form supplied in section 5.2.5.1.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

### Site Construction Documentation

The contractor is responsible of providing all required documentation needed during the Site Construction process.

All documentation will be made available to the NaaS Operator in the designated document repository and management and inventory systems as required.

Site Construction documentation will include among other documents the Technical Site Survey report, Site Engineering document, Site As-built document and the Site Construction Acceptance checklist.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

### Site Construction Inspection and Acceptance

Once Construction is finished, Site Construction Vendor will notify NaaS Operator that the Site is Ready for Civil Engineering Acceptance. NaaS Operator will then execute an inspection of the Civil Works and issue the Site Construction Acceptance if any items need to be repaired.

To perform the Site Construction Acceptance, NaaS Operator (or designated 3rd party company) will utilize the Site Construction Acceptance Checklist template (template F) provided by NaaS Operator.

In the Site Construction Acceptance template, NaaS Operator will determine all the construction items that need to be fixed (“punchlist”) by Site Construction Vendor before issuing Site Construction Acceptance.

Site Construction Acceptance document will be included as part of the Site Documentation (refer to section 4.1.6.).

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

## Site Construction Quality Assurance

NaaS Operator will significantly value the certification of Vendor in procedures for quality assurance based in the ISO 9000 (International Standards Organization) both for the construction services as well as for the construction elements included in site construction. Please refer to form in section 5.2.5.1 for corresponding certificates listing.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

## Project Plan

NaaS Operator will share the objective Project Plan with the Site Construction Vendors. The Project Plan will show the number, the distribution in temporary phases and the geographical distribution of the Sites to be built.

The Project Plan will establish the Baseline of the Project and will be based in the agreed Lead times for Site construction activities. These activity durations will be adapted by NaaS Operator depending on the specifics of the project and based in the agreements reached with the Construction Partners. The duration of the activities could vary significantly depending on the selected type of towers or primary structures and the required needs for associated construction works. The following table shows an example of the level of detail to be considered for the site construction time baseline. It provides an activity breakdown and reference activity durations for the Site Construction (additional activities for Acquisition, Installation & Commissioning and Integration are also provided for reference):

|  |  |
| --- | --- |
| **Task Name** | **Duration (days)** |
| **New Site (total duration)** | **97** |
| **Site Acquisition** | **38** |
| Documentation | 5 |
| Preparation and signing of contract | 3 |
| Permits | 15 |
| Licensing | 15 |
| **Site Survey and A&E Analysis** | **18** |
| Technical Site Survey (preparation and generation of report) | 4 |
| Engineering and Structural Evaluation | 14 |
| **Construction** | **35** |
| Soil excavation and ground cleaning | 2 |
| Stoke and leveling | 1 |
| Excavations for base and tower | 2 |
| Steel assembling and leveling | 3.5 |
| Dice shoring | 2 |
| Bending concrete basis for equipment | 2 |
| Concrete casting | 1 |
| Base filings and compacting | 2 |
| Main Power Installation | 3 |
| Main Power connection | 2 |
| Tower erection | 4 |
| Rebuff enclosure bases assembling | 2 |
| Perimeter Fence/wall installation | 3 |
| Access door assembling | 0.5 |
| Preparation of electrical and ground canalization | 2 |
| Electrical and grounding registers installation | 2 |
| Application of Gravel | 1 |
| **Installation and Commissioning (I&C) (MW + RF)** | **5.5** |
| MW | 2 |
| MW mounting | 0.5 |
| MW LOS | 1 |
| Commissioning | 0.5 |
| RF | 3.5 |
| Antennas mounting | 1 |
| Feeders/F.O Cabling | 1 |
| Shelter/Cabinets connections | 1 |
| Commissioning | 0.5 |
| **Integration** | **0.5** |

NaaS Operator will request to the Vendors the compliance level with the proposed activity lead times and compliance with volumes of sites to be built.

| Section | | |
| --- | --- | --- |
| Compliant | Non-compliant | Partially compliant (specify) |
|  |  |  |

## Project Budget

On occasion, the RFP document will provide proponents with a mandatory budget amount that proposals must not exceed. It is not the case in the current RFP.

# Bid Proposals preparation and submission (RFP Instructions and Deliverables)

## Submission Instructions

The bidder is advised to thoroughly read and follow all instructions contained in this RFP, in preparing and submitting its bid proposal.

Responses submission must be sent via email to the contact person specified in section 3.6.

## Bid Proposal Content

The response from the Proponents must submit, via email[[1]](#footnote-1) to the NaaS contact point for this RFP, a response package including the following list of documents:

* Presentation Letter: As described in 5.2.1
* Non-Disclosure Agreement: As described in 5.2.2
* Statement of Compliance: As described in 5.2.3
* Executive Summary: As described in 5.2.4
* Vendor pre-qualification: As described in 5.2.5.1
* Bidder Commercial and Financial Information: As described in 5.2.5.6
* Technical Response: As described in 5.2.6
* Pricing Response: As described in 5.2.7

The proponent may include any additional documents, brochures, catalogs or references which are relevant to the scope of work of this RFP, the proponent experience on similar projects or alternative products or methodologies which could improve the resolution of this RFP.

### Presentation Letter

The Respondent will include a Presentation Letter to introduce the company, providing an abstract of the company history, relevant experience, resources available and suitability statement for the scope of work included on this RFP and contact person(s) for any technical, commercial or legal queries which might derive from the RFP process.

In the case of subcontracting or under a joint response, information regarding all companies involved in the response and their legal relationship must be included.

### Non-Disclosure Agreement

Use NaaS Operator Non-Disclosure Agreement Form.

### Statement of Compliance

Each Respondent shall provide a Statement of Compliance which confirms:

* that the Respondent has full authority to submit a Proposal on the basis of this Request for Proposal
* that the Submission has been appropriately reviewed by the Respondent’s technical, commercial, financial and legal representatives
* the level of internal approval obtained by key Subcontractors in order to make the Proposal (letters of support from each key Subcontractor should be included).

In the case of Respondents proposing to deliver the Project as a Consortium, a separate Statement of Compliance must be signed by an authorized signatory of each proposed Consortium Member.

Each shall provide a statement that the Proposal is fully compliant with all aspects of the RFP and also the terms and conditions of the RFP and the Contract, or shall state clearly any exceptions, deviations, alternative approaches or additions to the requirements of the RFP and/or draft Contract (as appropriate), with justification. Additional comments and clarifications should also be listed where appropriate (for example to clarify interpretation of requirements), but these must be differentiated from any deviations / exceptions (etc.) above.

Specific compliance statement is required to be provided by Contractor to the aspects described in section 4.

With respect to the terms and conditions of the draft Project Contract, each Respondent must either:

* expressly confirm that the response to the RFP is made on the basis of the terms and conditions of the draft Contract; or
* expressly confirm that the RFP response is made on the basis of the terms and conditions of the draft Project Contract subject to clarifications and exceptions.

Respondents should note that, in addition to the foregoing, the NaaS Operator expects that each of the Respondents will provide in their Statements of Compliance an initial detailed view on those areas of the Contract set out in the Commercial and Legal Requirements document. Any exception in relation to those matters set out in the Commercial and Legal Requirements document is considered a material issue and must be clearly and specifically identified in the Statement of Compliance. Please note that the NaaS Operator may reject a Proposal if a material issue (including a non-compliance with the terms and conditions of the draft Contract) is identified by a Respondent at any stage during the RFP process.

### Executive Summary

The executive summary should contain all the basic elements of the proposal so that anyone not on the evaluation team can read the summary and understand what is being proposed. It should summarize the process the proponent intends to follow to achieve the RFP requirements.

### Bidders company organization and experience

Bidder is requested to provide information about the information relating to its organization, personnel, and experience, including, but not limited to, references, together with contact names and telephone numbers, evidencing the bidder's qualifications, and capabilities to perform the services required by this RFP.

#### Vendor Pre-qualification

Vendors pre-qualification form provides key questions which the NaaS Operator will use to determine the suitability of the potential Respondent to address the project scope. This qualification form includes both technical, operational and financial questions.

NaaS Operator can use for this purpose the provided Site Construction Pre-qualification Template (template C) included in this module.

#### Location

The bidder should include the address of the bidder's office that will be responsible for managing the contract. The bidder should include the telephone number and name of the individual to contact.

#### Organization Charts

The bidder should include a contract organization chart (“Contract-specific chart”), with names showing management, supervisory and other key personnel (including subcontractor management, supervisory or other key personnel) to be assigned to the contract. The chart should include the labor category and title of each such individual.

The bidder should include an organization chart showing the bidder’s entire organizational structure (“Chart for entire company”). This chart should show the relationship of the individuals assigned to the contract to the bidder's overall organizational structure.

#### Experience with Contracts of Similar Size and Scope

The bidder should provide a comprehensive listing of contracts of similar size and scope that it has successfully completed, as evidence of the bidder’s ability to successfully complete the services required by this RFP. Emphasis should be placed on contracts that are similar in size and scope to the work required by this RFP. A description of all such contracts should be included and should show how such contracts relate to the ability of the firm to complete the services required by this RFP. For each such contract, the bidder should provide two names and telephone numbers of individuals for the other contract party (i.e. client). Beginning and ending dates should also be given for each contract.

The bidder should provide documented experience to demonstrate that each subcontractor has successfully performed work on contracts of a similar size and scope to the work that the subcontractor is designated to perform in the bidder’s proposal. The bidder must provide a detailed description of services to be provided by each subcontractor.

#### Staff Qualification and resumes

The proponent shall provide a detailed list of the staff members involved in the realization of the tasks described in the RFP. The list shall include a summarized profile, qualification, certifications and years of experience in similar activities.

Detailed resumes should be submitted for all management, supervisory and key personnel to be assigned to the contract. Resumes should be structured to emphasize relevant qualifications and experience of these individuals in successfully completing contracts of a similar size and scope to those required by this RFP.

The bidder should provide detailed resumes for each subcontractor’s management, supervisory

and other key personnel that demonstrate knowledge, ability and experience relevant to that part

of the work which the subcontractor is designated to perform.

#### Commercial and Financial Information

The Proponent shall provide detailed commercial information including:

* Registration Number
* Registration Place
* Date of Establishment
* Capital
* Number of Employees
* Contact Address
* Contact Email & Phone / Fax
* Type of Company (Limited Liability, Incorporation, other)

In order to provide the NaaS Operator with the ability to judge the bidder’s financial capacity and capabilities to undertake and successfully complete the contract, the bidder should submit certified financial statements to include a balance sheet, income statement and statement of cash flow, and all applicable notes for the most recent calendar year or the bidder’s most recent fiscal year. If certified financial statements are not available, the bidder should provide either a reviewed or compiled statement from an independent accountant setting forth the same information required for the certified financial statements, together with a certification from the Chief Executive Officer and the Chief Financial Officer, that the financial statements and other information included in the statements fairly present in all material respects the financial condition, results of operations and cash flows of the bidder as of, and for, the periods presented in the statements. In addition, the bidder should submit a bank reference.

If the information is not supplied with the bid proposal, the NaaS Operator may still require the bidder to submit it. If the bidder fails to comply with the request within seven (7) business days, the NaaS Operator may deem the proposal non-responsive.

### Technical Proposal

The Proponents will include a detailed technical description of the activities that the Vendor will perform to deliver the requested Construction Solutions and Services included in the scope of work set forth in this RFP.

### Pricing Proposal

The Proponents will include a detailed description of the pricing conditions associated to the Construction Solutions and Services defined in the Scope of Work of this RFP.

In this proposal, the Tenderer shall include his unitary prices for the base deliverables listed in below template.

It is requested from the Bidder to include Pricing information with applicable discounts for the following ranges of total Sites:

* Range1: 0-50 Sites
* Range2: 50-200 Sites
* Range3: 200-1000 Sites

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Site Construction Solution** | **Infrastructure Items** | **Items Description** | **RFP Price (USD/Site) # Sites in Range1** | **RFP Price (USD/Site) # Sites in Range2** | **RFP Price (USD/Site) # Sites in Range2** |
| **Solution#1: Monopole Omnidirectional Type1** | **Construction components** |  |  |  |  |
| Tower | Monopole 7m (with security step bolts) |  |  |  |
| Equipment Shelter | *N/A* |
| Tower/Rooftop Mounting structures | Include mounting structures for: 1 omni RF antenna + 1 RRU + 1 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Cabling Construction components | Cable hangers for monopole tower |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | Site Fencing for 16m2 |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  | | |
| **Solution#2: Monopole Omnidirectional Type2** | **Construction components** |  |  | | |
| Tower | Monopole 15m (with security step bolts) |  |  |  |
| Equipment Shelter | *N/A* |
| Tower/Rooftop Mounting structures | Include mounting structures for 1 omni RF antenna + 1 RRU + 1 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Cabling Construction components | Cable hangers for monopole tower |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | Site Fencing for 25m2 |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  | | |
| **Solution#3: Monopole Sector Type1** | **Construction components** |  |  | | |
| Tower | Monopole 20m (with security step bolts) |  |  |  |
| Equipment Shelter | *N/A* |
| Tower/Rooftop Mounting structures | Include mounting structures for 3 sector RF antenna (3 pipes of 3m) + 3 RRU + 3 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Cabling Construction components | Cable hangers for monopole tower |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | Site Fencing for 25m2 |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  | | |
| **Solution#4: Self-Supported Omnidirectional Type1** | **Construction components** |  |  | | |
| Tower | Self Supported Tower, with 3-leg angular sections (with attached safety ladder) |  |  |  |
| Equipment Shelter | *N/A* |
| Tower/Rooftop Mounting structures | Include mounting structures for 1 omni RF antenna + 1 RRU + 1 BBU + Solar Panel + 1 MW or VSAT antenna + battery enclosure |
| Battery | Outdoor enclosure for Lithium Battery Pack (6 hrs) (tower or pole installation) |
| Cabling Construction components | Tower Cable ladder |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | Site Fencing for 25m2 |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  | | |
| **Solution#5: Self-Supported Sector Type1 (Outdoor cabinets)** | **Construction components** |  |  | | |
| Tower | Self Supported Tower, with 3-leg angular sections (with attached safety ladder) |  |  |  |
| Equipment Shelter | Include Foundation of 2mx1m (0.20 depth) for outdoor cabinets |
| Tower/Rooftop Mounting structures | Include mounting structures for 3 sector RF antenna (3 pipes of 3m) + 3 RRU + Solar Panel + 1 MW or VSAT antenna |
| Outdoor Cabinets | Outdoor Cabinets for ground installation: 1 Telecom cabinet + 1 Battery cabinet (Lithium Battery Pack (6 hrs)) |
| Cabling Construction components | Tower Cable ladder + horizontal cable waveguide (5m) |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | Site Fencing for 40m2 |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  | | |
| **Solution#6: Rooftop Site – Collocation** | **Construction components** |  |  | | |
| Tower | Supply and install 4 supports (3m each) on existing poles, masts, guyed tower, etc. (3RF + 1MW) |  |  |  |
| Equipment Shelter | Outdoor Cabinets: Include metallic platform for the AC/DC cabinet and equipment cabinet (2mx2m); Include Metallic frame for the AC/DC cabinet |
| Tower/Rooftop Mounting structures | Include mounting structures for 3 sector RF antenna (3 pipes of 2.5m) + 3 RRU + 1 MW antenna |
| Power Construction components | Power supply to the cabinet from the existing switchboard (5m conduit) and installation of a circuit breaker for feeder protection |
| Outdoor Cabinets | Outdoor Cabinets for ground installation: 1 Telecom cabinet + 1 Battery cabinet (Lithium Battery Pack (6 hrs)) |
| Cabling Construction components | 20m horizontal Waveguide Bridge |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | *N/A* |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  | | |
| **Solution#7: Rooftop Site – New** | **Construction components** |  |  | | |
| Tower | 4 masts and supports of 3m each height (3RF + 1MW) |  |  |  |
| Equipment Shelter | Outdoor Cabinets: Include metallic platform for the AC/DC cabinet and equipment cabinet (2mx2m); Include Metallic frame for the AC/DC cabinet |
| Tower/Rooftop Mounting structures | Include mounting structures for 3 sector RF antenna (3 pipes of 2.5m) + 3 RRU + 1 MW antenna |
| Power Construction components | Connection to the AC building power, supplying and installing a meter, switchboard, conduits and AC power cable until the equipment. |
| Outdoor Cabinets | Outdoor Cabinets for ground installation: 1 Telecom cabinet + 1 Battery cabinet (Lithium Battery Pack (6 hrs)) |
| Cabling Construction components | 20m horizontal Waveguide Bridge |
| Ground Construction Components | Complete grounding system with connection of all metallic elements and electronic system + Lightning rod |
| Fencing | *N/A* |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |
|  |  |  |  |  |  |
| **Alternative Rural Site Solution** | **Construction components** |  |  | | |
| Tower | To be proposed by Tenderer |  |  |  |
| Equipment Shelter | To be proposed by Tenderer |
| Tower/Rooftop Mounting structures | To be proposed by Tenderer |
| Power Construction components | To be proposed by Tenderer |
| Battery | To be proposed by Tenderer |
| Cabling Construction components | To be proposed by Tenderer |
| Ground Construction Components | To be proposed by Tenderer |
| Safety Construction Components | To be proposed by Tenderer |
| Fencing | To be proposed by Tenderer |
| **Construction Services** |  |  | | |
| Project Management | per Site |  |  |  |
| Technical Site Survey / Site Solution Design | per Site |  |  |  |
| Engineering Analysis / Site documentation | per Site |  |  |  |
| Site Construction | per Site |  |  |  |

Pricing Proposal shall be inclusive of all applicable taxes, including VAT (applicable for local entity) and Withholding tax (applicable for foreign entity) and any other expenses incurred for the execution of this project.

NaaS Operator can use for this purpose the provided Site Construction RFP\_Pricing Proposal template (template H) included in this module.

# RFP Proposal Evaluation

## Right to waive

NaaS Operator reserves the right to waive minor errors, ambiguities or irregularities in the provided documentation. NaaS Operator also reserves the right to waive any of the requirements included in the RFP.

## Proposal Evaluation Committee

Bid proposals may be evaluated by an Evaluation Committee composed of members of affected NaaS Operator Departments. On occasions, the Evaluation Committee may choose to make use of the expertise of outside consultant in an advisory role.

## Oral Presentations and/or Clarification of Bid Proposals

After reviewing bid proposals, the Buyer or the Evaluation Committee (generically, the “evaluation committee”) may ask one, some or all of the bidders to clarify certain aspects of their proposals. A request for clarification may be made in order to resolve minor ambiguities, irregularities, informalities or errors.

Clarifications cannot correct any deficiencies or material omissions or revise or modify a proposal, except to the extent that correction of apparent mistakes results in a modification.

The bidder may be required to give an oral presentation to the NaaS Operator concerning its bid proposal. Bidders may not attend the oral presentations of their competitors.

It is within the NaaS Operator’s discretion whether to require the bidder to give an oral presentation or require the bidder to submit written responses to questions regarding its bid proposal. Action by the NaaS Operator in this regard should not be construed to imply acceptance or rejection of a bid proposal. The designated in section 3.6 will be the sole point of contact regarding any request for an oral presentation or clarification.

## Evaluation Criteria

Proposals will be evaluated both considering the Technical aspects as well as Pricing schedule proposals.

### Technical Evaluation

Each Bid proposal will receive a Technical Evaluation Score which will be the average of the scores of the Evaluation Committee members.

The Technical Evaluation will score the different categories:

* Bidder´s technical response to the RFI/RFP Scope of Work: technical description of the activities that the Vendor will perform to deliver the requested Construction Solutions and Services included in the scope of work set forth in this RFP.
* The qualifications and experience of the bidder including corporate information, management, supervisory or key personnel assigned to the contract, including the candidates recommended for each of the positions/roles required. Corporate evaluation will be based on the Bidder’s experience on projects of similar size and scope, the bidder’s contract management plan and contract organizational chart. NaaS Operator will use to this effect the Vendor pre-qualification template included in section 5.2.5.1.

The Technical Evaluation Score used will be the average of the combined Technical Evaluation Score (sum of each voting member technical evaluation score divided by the number of voting members).

### Price Evaluation

For evaluation purposes, bidders will be ranked according to the total bid price located on the Price template (template H) accompanying this RFP (refer to section 5.2.7).

For evaluation purposes, bidders will be ranked according to the formula:

* Cost Proposal Score = predetermined points x (lowest cost proposal/evaluating cost proposal)

The cost proposal ranked will be the lowest acceptable cost proposal between the original cost proposal and the Best and Final Offer proposal submitted by each bidder.

### Total Proposal Score

Each evaluated proposal will receive a Total Proposal Score based on the following formula:

* Technical Evaluation Score + Cost Proposal Score = Total Proposal Score.

The bidder receiving the highest Total Proposal Score will be recommended for contract award. In the event of a tie, the proposal with the highest technical score amongst the tied proposals will be recommended for contract award.

### Bid Discrepancies

In evaluating bids, discrepancies between unit prices and totals of unit prices will be resolved in favor of unit prices. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated total of multiplied unit prices and units of work and the actual total will be resolved in favor of the actual total.

### Evaluation of Bid Proposals

After the Evaluation Committee completes its evaluation, it recommends to the NaaS Management representatives (the sponsor of the RFP could be the Supply Chain Director, the CTO or other Director/manager in the NaaS organization) for award the responsible bidder(s) whose bid proposal, conforming to this RFP, is most advantageous to the NaaS Operator, price and other factors considered. The Evaluation Committee considers and assesses price, technical criteria, and other factors during the evaluation process and makes a recommendation to the NaaS Management representatives. NaaS Management representatives may accept, reject or modify the recommendation of the Evaluation Committee. NaaS Management representatives reserves the right to negotiate price reductions with the selected vendor.

## Negotiation and Best and Final Offer (BAFO)

After evaluating bid proposals, NaaS Management representatives may enter into negotiations with one bidder or multiple bidders. The primary purpose of negotiations is to maximize NaaS Operator’s ability to obtain the best value based on the mandatory requirements, evaluation criteria, and cost.

Multiple rounds of negotiations may be conducted with one bidder or multiple bidders. Negotiations will be structured by the NaaS Management representatives to safeguard information and ensure that all bidders are treated fairly.

Similarly, the NaaS Management representatives may invite one bidder or multiple bidders to submit a best and final offer (BAFO). Said invitation will establish the time and place for submission of the BAFO.

Any BAFO that is not equal to or lower in price than the pricing offered in the bidder’s original proposal will be rejected as non-responsive and the NaaS Operator will revert to consideration and evaluation of the bidder's original pricing.

If required, after review of the BAFO(s), clarification may be sought from the bidder(s). The NaaS Management representatives may conduct more than one round of negotiation and/or BAFO in order to attain best value for the NaaS Operator.

After evaluation of bid proposals and as applicable, negotiation(s) and/or BAFO(s), the NaaS Management representatives will recommend, to the Director or responsible of the process, the bidder(s) whose bid proposal(s), conforming to the RFP, is/are most advantageous to the NaaS Operator, price and other factors considered.

Negotiations will be conducted only in those circumstances where they are deemed by the NaaS Management representatives or Director to be in the NaaS Operator’s best interests and to maximize the NaaS Operator’s ability to get the best value. Therefore, the bidder is advised to submit its best technical and price proposal in response to the RFP since the NaaS Operator may, after evaluation, make a contract award based on the content of the initial submission, without further negotiation and/or BAFO with any bidder.

All contacts, records of initial evaluations, any correspondence with bidders related to any request for clarification, negotiation or BAFO, any revised technical and/or price proposals, the Evaluation Committee Report and the Award Recommendation, will remain confidential until a Notice of Intent to Award a contract is issued.

# Contract Award

## Contract

It is not the objective of this document to constitute a comprehensive list of legal terms, since these may be influenced by many factors such as country, type of NaaS operator, etc. To this extent, the specific contract format will be selected by NaaS Operator and provided to Bidders.

However, it is consider important and relevant to include a list of terms and conditions to be considered for the development of such contract. These terms and conditions are described in section 7.2.

## Contract terms and conditions

Without prejudice to any terms and conditions subsequently agreed between NaaS Operator and the successful Tenderer, the following general terms and conditions will govern the engagement with the Tenderer:

### Contractor Responsibilities

The contractor shall have sole responsibility for the complete effort specified in the contract. Payment will be made only to the contractor. The contractor shall have sole responsibility for all payments due to any subcontractor.

The contractor is responsible for the professional quality, technical accuracy and timely completion and submission of all deliverables, services or commodities required to be provided under the contract. The contractor shall, without additional compensation, correct or revise any errors, omissions, or other deficiencies in its deliverables and other services. The approval of deliverables furnished under this contract shall not in any way relieve the contractor of responsibility for the technical adequacy of its work. The review, approval, acceptance or payment for any of the services shall not be construed as a waiver of any rights that the NaaS Operator may have arising out of the contractor’s performance of this contract.

### Substitution of staff

If it becomes necessary for the contractor to substitute any management, supervisory or key personnel, the contractor shall identify the substitute personnel and the work to be performed. The contractor must provide detailed justification documenting the necessity for the substitution. Resumes must be submitted evidencing that the individual(s) proposed as substitution(s) have qualifications and experience equal to or better than the individual(s) originally proposed or currently assigned.

The contractor shall forward a request to substitute staff to the NaaS Operator Contract Manager for consideration and approval. No substitute personnel are authorized to begin work until the contractor has received written approval to proceed from the NaaS Operator Contract Manager.

### Substitution or addition of Subcontractor(s)

If it becomes necessary for the contractor to substitute a subcontractor, add a subcontractor or substitute its own staff for a subcontractor, the contractor will identify the proposed new subcontractor or staff member(s) and the work to be performed. The contractor must provide detailed justification documenting the necessity for the substitution or addition.

The contractor must provide detailed resumes of its proposed replacement staff or of the proposed subcontractor’s management, supervisory and other key personnel that demonstrate knowledge, ability and experience relevant to that part of the work which the subcontractor is to undertake.

The qualifications and experience of the replacement(s) must equal or exceed those of similar personnel proposed by the contractor in its bid proposal.

The contractor shall forward a written request to substitute or add a subcontractor or to substitute its own staff for a subcontractor to the NaaS Operator Contract Manager for consideration and final approval.

No substituted or additional subcontractors are authorized to begin work until the contractor has received written approval from the NaaS Operator Contract Manager.

### Ownership of Material

All data, technical information, materials gathered, originated, developed, prepared, used or obtained in the performance of the contract, including, but not limited to, all reports, surveys, plans, charts, literature, brochures, mailings, recordings (video and/or audio), pictures, drawings, analyses, graphic representations, software computer programs and accompanying documentation and print-outs, notes and memoranda, written procedures and documents, regardless of the state of completion, which are prepared for or are a result of the services required under this contract shall be and remain the property of the NaaS Operator and shall be delivered to the NaaS Operator upon 30 days’ notice.

### Data Confidentiality

All financial, statistical, personnel, customer and/or technical data supplied by the NaaS Operator to the contractor are confidential. The contractor must secure all data from manipulation, sabotage, theft or breach of confidentiality. The contractor is prohibited from releasing any financial, statistical, personnel, customer and/or technical data supplied by the NaaS Operator that is deemed confidential. Any use, sale, or offering of this data in any form by the contractor, or any individual or entity in the contractor’s charge or employ, will be considered a violation of this contract and may result in contract termination and the contractor’s suspension or debarment from NaaS Operator contracting. In addition, such conduct may be reported for possible criminal prosecution.

The contractor shall assume total financial liability incurred by the contractor associated with any breach of confidentiality.

The contractor and all project staff including its subcontractor(s) must complete and sign confidentiality and non-disclosure agreements provided by the NaaS Operator and require all staff to view yearly security awareness and confidentiality training modules provided by the contractor. It shall be the contractor’s responsibility to ensure that any new staff sign the confidentiality agreement and complete the security awareness and confidentiality training modules within one month of the employees’ start date.

### Licenses and Permits

The contractor shall obtain and maintain in full force and effect all required licenses, permits, and authorizations necessary to perform this contract. The contractor shall supply the NaaS Operator Contract Manager with evidence of all such licenses, permits and authorizations. This evidence shall be submitted subsequent to the contract award. All costs associated with any such licenses, permits and authorizations must be considered by the bidder in its bid proposal.

### Remedies for Failure to comply with Contract Requirements

In the event that the contractor fails to comply with any material contract requirements, NaaS Operator may take steps to terminate the contract and/or authorize the delivery of contract items by any available means, with the difference between the price paid and the defaulting contractor's price either being deducted from any monies due the defaulting contractor or being an obligation owed the NaaS Operator by the defaulting contractor.

### Late Delivery

The contractor must immediately advise the NaaS Operator Contract Manager of any circumstance or event that could result in late completion of any task or subtask called for to be completed on a date certain.

### Scope of Work reduction

The NaaS Operator has the option, in its sole discretion, to reduce the scope of work for any task or subtask called for under this contract. In such an event, the NaaS Operator shall provide advance written notice to the contractor.

Upon receipt of such written notice, the contractor will submit, within five (5) working days to the NaaS Operator Contract Manager, an itemization of the work effort already completed by task or subtask. The contractor shall be compensated for such work effort according to the applicable portions of its price schedule.

### Suspension of Work

The NaaS Operator Contract Manager may, for valid reason, issue a stop order directing the contractor to suspend work under the contract for a specific time. The contractor shall be paid until the effective date of the stop order. The contractor shall resume work upon the date specified in the stop order, or upon such other date as the NaaS Operator Contract Manager may thereafter direct in writing. The period of suspension shall be deemed added to the contractor's approved schedule of performance. The NaaS Operator and the contractor shall negotiate an equitable adjustment, if any, to the contract price.

### Change in Law

Whenever an unforeseen change in applicable law or regulation affects the services that are the subject of this contract, the contractor shall advise the NaaS Operator Contract Manager in writing and include in such written transmittal any estimated increase or decrease in the cost of its performance of the services as a result of such change in law or regulation. The NaaS Operator and the contractor shall negotiate an equitable adjustment, if any, to the contract price.

### Non discrimination clause

During the performance of this contract, the contractor agrees as follows:

a) The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this non discrimination clause;

b) The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex;

c) The contractor or subcontractor where applicable, will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

### Additional work and/or special products

The contractor shall not begin performing any additional work or special projects without first obtaining written approval from the NaaS Operator Contract Manager.

In the event of additional work and/or special projects, the contractor must present a written proposal to perform the additional work to the NaaS Operator Contract Manager. The proposal should provide justification for the necessity of the additional work. The relationship between the additional work and the base contract work must be clearly established by the contractor in its proposal.

The contractor’s written proposal must provide a detailed description of the work to be performed broken down by task and subtask. The proposal should also contain details on the level of effort, including hours, labor categories, etc., necessary to complete the additional work.

The written proposal must detail the cost necessary to complete the additional work in a manner consistent with the contract. The written price schedule must be based upon the hourly rates, unit costs or other cost elements submitted by the contractor in the contractor’s original bid proposal submitted in response to this RFP. Whenever possible, the price schedule should be a firm, fixed price to perform the required work. The firm fixed price should specifically reference and be tied directly to costs submitted by the contractor in its original bid proposal. A payment schedule, tied to successful completion of tasks and subtasks, must be included.

No additional work and/or special project may commence without the NaaS Operator’s written approval. In the event the contractor proceeds with additional work and/or special projects without the NaaS Operator’s written approval, it shall be at the contractor’s sole risk. NaaS Operator shall be under no obligation to pay for work performed without the NaaS Operator’s written approval.

### Form of compensation and payment

The contractor must submit official NaaS Operator invoice forms with supporting documentation evidencing that work for which payment is sought has been satisfactorily completed. Invoices must reference the tasks or subtasks detailed in the Scope of Work section of the RFP and must be in strict accordance with the firm, fixed prices submitted for each task or subtask on the RFP pricing sheets. When applicable, invoices should reference the appropriate RFP price sheet line number from the contractor’s bid proposal. All invoices must be approved by the NaaS Operator Contract Manager before payment will be authorized.

Invoices must also be submitted for any special projects, additional work or other items properly authorized and satisfactorily completed under the contract. Invoices shall be submitted according to the payment schedule agreed upon when the work was authorized and approved. Payment can only be made for work when it has received all required written approvals and has been satisfactorily completed.

### Indemnification

The contractor's liability to the NaaS Operator for actual, direct damages resulting from the contractor's performance or non-performance, or in any manner related to the contract, for any and all claims, shall be limited in the aggregate to 500 % of the value of the contract, except that such limitation of liability shall not apply to the following:

* + The contractor's obligation to indemnify the NaaS Operator and its employees from and against any claim, demand, loss, damage or expense relating to bodily injury or the death of any person or damage to real property or tangible personal property, incurred from the work or materials supplied by the contractor under the contract caused by negligence or willful misconduct of the contractor;
  + The contractor's breach of its obligations of confidentiality; and,
  + Contractor's liability with respect to copyright indemnification.

### Professional Liability Insurance

The contractor shall carry Errors and Omissions, Professional Liability Insurance and/or Professional Liability Malpractice Insurance sufficient to protect the contractor from any liability arising out the professional obligations performed pursuant to the requirements of the contract. The insurance shall be in the amount of not less than $x,xxx,xxx and in such policy forms as shall be approved by the NaaS Operator. If the Contractor has claims-made coverage and subsequently changes carriers during the term of the contract, it shall obtain from its new Errors and Omissions, Professional Liability Insurance and/or Professional Malpractice Insurance carrier an endorsement for retroactive coverage.

## Contract Management

NaaS Operator will be responsible to plan the deployment of sites. This task will include developing the time schedule planning, the assignment of resources and the risk plan to mitigate unwanted issues in the site construction process. This plan will be communicated to the selected Site Construction Vendors in the Vendor on-boarding meeting. The objectives of the Vendor on-boarding meeting will include:

* Explain the overall objective of the Project to Construction Vendor representatives
* Review the Scope of Work which has been agreed with the Site Construction Vendors through the RFI/RFP process and finally expressed in the agreed contract, including:
  + Scope of Site Solutions that will be implemented: set of construction components associated to each Site Solution
  + Scope of Site Construction Services included in the contract.
* Explain the NaaS organization for Site Construction Management, introducing the main stakeholders who will be managing the relationship with the Site Construction Vendors
* Explain the Project Plan, including Number of Sites to be deployed divided by Geographical Areas.
* Governance Process and Methodology: Explain how reporting is going to be performed, the type and periodicity of the reporting, the meetings which will be celebrated, the type of information which will be reviewed and the periodicity of the meetings
* Documentation: Explain details about which Documentation the Site Construction Vendor will be generating (Technical Site Survey Report, Site Engineering Document, As-Built) and the methods to share the documentation.

NaaS Operator will define the Governance methodology for Vendor Management. The specific Project will determine the required adjustments to be implemented to adjust the periodicity and content of the reports. The following is the suggested guidelines for Site Construction Vendors Management:

|  |  |
| --- | --- |
|  | Description |
| **Governance File** | The Governance File will be a master Excel file containing the details required for reports development. It will include main milestones and related accomplished dates and it will require Construction Vendors to access and update accordingly.  This Governance Excel File could be replaced by a Project Management software solution which could be enhanced with an Inventory Solution. |
| **Monthly Report** | Excel and Power Point files with the number and  critical route of the project status and big  milestones |
| **Weekly or Daily Report** | Excel Fiie with comparison between Baseline,  forecast and actuals date and accomplishment of  the project milestones. Identification and description of risks impacting the timeline. |

Main milestones that will be tracked in the mentioned Progress Reports Will include the following:

|  |  |
| --- | --- |
| Milestone | Description |
| **Technical Site Survey Report Ready** | After Technical Site Survey has been completed, Vendor will be responsible to deliver the Technical Site Survey Report. |
| **Site Engineering Document Ready** | Once Structural Analysis of the Site solution has been performed, Vendor will prepare the Site Engineering Document with level of detail agreed with NaaS Operator. Site Engineering Document will be validated by NaaS Operator as the official document of the Site solution to be built. |
| **Site Construction Work Order Ready (or “Ready For Construction”)** | Site Construction Work Order will be released by NaaS Operator to authorize the initiation of Site Construction (or “Ready For Construction” Milestone) |
| **CW Completed (Civil Works completed)** | This Milestone will indicate the finalization of Construction Works.  If project specifics make it necessary, the CW completed Milestone could be divided into:   * Civil Works Ready: indicating that Site preparation and foundations have been completed * Mechanical Works Ready: indicating that tower and equipment shelter have been erected, as well as antenna mounts and cable construction components * Electrical Works Ready: indicating electrical and ground canalization has been prepared and electrical and grounding works have been completed |
| **Site Construction Acceptance** | Once Construction is finished, Site Construction Vendor will notify NaaS Operator that the Site is Ready for Civil Engineering Acceptance. NaaS Operator will then execute an Acceptance of the Civil Works and issue the Site Construction Acceptance if any items need to be repair.  To perform the Site Construction Acceptance, NaaS Operator (or designated 3rd party company) will utilize the Site Construction Acceptance Checklist template (template F) provided in the section Site Construction Acceptance.  In the Site Construction Acceptance Form, NaaS Operator will determine all the construction items that need to be fixed (“punchlist”) by Site Construction Vendor before issuing Site Construction Acceptance. |
| **Ready For Installation** | Once the Site Construction Vendor has fixed all the items in the Punchlist, it will notify the NaaS Operator that the construction activities have been finalized and the Site is ready for Equipment Installation. |

1. If feasible, an alternative mechanism for electronic communications better than email could be proposed (e.g. a shared folder accessible via pre-shared, Respondent specific password). [↑](#footnote-ref-1)