

# Tender Instructions

**Applicable to the European Public Tender for: H<sub>2</sub> Supply System**

**Contracting authority:**

The Netherlands Organisation for Applied Scientific Research / TNO

Document ref. : 2020 FPL/INK 170 Project H<sub>2</sub> Supply system  
Date : 09-11-2020

**Contents**

<b>1.</b>	<b>Contracting Authority and Contract</b> .....	<b>6</b>
1.1	TNO .....	6
1.2	Organizational structure.....	6
1.3	Contract description .....	7
1.3.1	Contract duration.....	7
1.3.2	Current situation and assessment of future requirements.....	7
1.3.3	Scope and content of the Contract .....	7
1.4	Socially responsible procurement .....	8
<b>2.</b>	<b>The Tender Procedure</b> .....	<b>9</b>
2.1	Schedule .....	9
2.2	Tender conditions .....	9
2.2.1	Acceptance .....	9
2.2.2	Formats .....	9
2.2.3	Self-declaration.....	9
2.2.4	Order of precedence .....	10
2.2.5	Contact person and communication .....	10
2.2.6	Language.....	10
2.2.7	Multiple tenders .....	10
2.2.8	Combination .....	10
2.2.9	Subcontractor .....	11
2.2.10	(no) Reliance on Third Party resources.....	12
2.2.11	Alternative Tenders .....	13
2.2.12	‘...or equivalent’ .....	13
2.2.13	Reserved rights .....	14
2.2.14	Confidentiality .....	14
2.2.15	Distortion of competition.....	14
2.2.16	Withdrawal of Tender.....	14
2.2.17	Period of validity .....	14
2.2.18	Terms and Conditions of Contract .....	14
2.2.19	Suppliers’ Terms and Conditions; Provisional Tenders .....	15
2.2.20	Legally valid signature .....	15
2.2.21	Reimbursement of Tender costs.....	15
2.2.22	Statement of prices and costs .....	15
2.2.23	Publicity .....	15
2.2.24	Intellectual property rights .....	15
2.2.25	Use of TNO logo.....	15
2.3	Further information (questions) .....	15
2.4	Disputes and applicable jurisdiction .....	16
2.5	Submission of the Tender.....	17
2.5.1	Digital submission .....	17
2.5.2	Structure and presentation .....	17
<b>3.</b>	<b>Evaluation of Tenders and Tenderers</b> .....	<b>18</b>
3.1	Evaluation team .....	18
3.2	Evaluation procedure .....	18
<b>4.</b>	<b>Evaluation of timely submission, form, presentation and completeness</b> .....	<b>19</b>

4.1	Timely submission .....	19
4.2	Form, presentation and completeness .....	19
<b>5.</b>	<b>Evaluation against Grounds for Exclusion and Eligibility Requirements.....</b>	<b>20</b>
5.1	Grounds for Exclusion .....	20
5.2	Evaluation of Eligibility Requirements.....	20
5.2.1	Financial and economic capacity .....	21
5.2.1.1	Insurance.....	21
5.2.1.2	Reference projects .....	21
5.2.1.3	Environmental management measures .....	22
5.2.1.4	Quality standards and certification .....	22
5.2.1.5	Personnel .....	23
5.2.2	Professional authority.....	23
<b>6.</b>	<b>Evaluation against Award Criteria .....</b>	<b>24</b>
6.1	Best Price-Quality Ratio .....	24
6.1.1	Sub-award criterium: Price (TP).....	24
6.1.2	Sub-award criterium: Quality (KW) .....	25
6.2	Award of Contract .....	26
<b>7.</b>	<b>Evaluation of evidential documents and other documents .....</b>	<b>27</b>
7.1	Submission of evidential documents and other documents.....	27
7.2	Suspensory conditions.....	27
<b>8.</b>	<b>Minimum requirements with regard to Contract performance (Programme of Requirements).....</b>	<b>28</b>
8.1	System Introduction .....	28
8.2	Functional description.....	29
8.3	Functional requirements .....	30
8.4	General design requirements .....	31
8.5	Project requirements .....	34
8.6	Preferences.....	37
<b>9.</b>	<b>Appendices.....</b>	<b>39</b>

## Definitions

In this document, certain capitalized words have a specific restricted meaning, as given below. In the case of nouns, the specific meaning applies to both singular and plural forms. Terms which do not appear in this list but which are defined by legislation, notably the *Aanbestedingswet* (Procurement Act 2012, amended 2016) take the meaning intended by that legislation.

### Aanbestedingswet

(Netherlands Procurement Act) : the *Aanbestedingswet 2012*, effective 1 November 2012, as published in the Government Gazette 2012 no. 542; amended 1 July by Act of 22 June 2016 to amend Netherlands Procurement Act 2012 in connection with the implementation of European Directives 2014/23/EC, 2014/24/EC and 2014/25/EC; commonly referred to in English as the Procurement Act. May be abbreviated to 'AW'.

### Appendices

: Appendices to these Tender Instructions, viz.

- **A01** to A06 – prescribed templates to be used when preparing and submitting the Tender (bid)
- **B01** to B04 – prescribed templates to be used for the provision of information by one or more Third Parties e.g. evidential documents to support the Self-Declaration

### Award Criteria

(singular: criterion) : the requirements imposed by TNO with regard to the content of Tenders. Weighted scores are awarded for each requirement in order to select the Tenderer to whom the Contract is to be awarded. Further information can be found in Chapter 6.

### Award Decision

: the decision taken by TNO whereby the winning Tenderer is to be invited to enter into a Contract; alternatively, the decision not to award the Contract to any party.

### C01 to C.[...]

: documents and supplementary information which form part of the Tender Instructions but are not intended for submission to any external party.

### Call for Tender

: the announcement of a European (Public) Tender, usually on [www.tenderned.nl](http://www.tenderned.nl)

### Contracting authority

: The Netherlands Organisation for Applied Scientific Research (TNO).

### Combination

: an alliance of companies or legal entities who submit a joint tender as if acting as a single entity. Each member of the alliance is jointly and severally responsible and liable in law for the effective performance of the Contract, if awarded.

### Combined tender

: a Tender which applies to two or more Lots, submitted on the condition that the Tenderer is to be considered for all such Lots rather than selected Lots.

### Contractor

: the successful Tenderer to whom the Contract is awarded.

### Contract

: the legally binding agreement between TNO and the Contractor, effected further to the outcome of the Tender procedure.

### Eligibility Requirements

: the requirements imposed by TNO on all tendering parties not automatically excluded (under the mandatory Grounds for Exclusion), establishing minimum standards which must be met in order to be considered for the Contract.

### Grounds for Exclusion

: reasons whereby a party is automatically deemed ineligible to take part in the Tender procedure. Depending on the contents of the tender documents and description, such reasons may relate to the (personal) circumstances of the Tenderer company, an officer of that company and/or a Third Party with a material involvement in the Tender and the proposed Contract. Mandatory Grounds for Exclusion are restrictions established by European legislation.

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Minimum Requirements	: the minimum requirements imposed by TNO with regard to the provision of supplies, services or works, i.e. the manner in which the Contractor is to perform the activities specified by the Contract.
Memorandum of Information	: a document providing further information about the Tender procedure and/or the tender documents, compiled by TNO in response to queries it has received from Tenderers. (The queries are anonymized in the interests of confidentiality.)
Self-declaration	: the statement in the meaning intended by Art 2.84 para. 1 of the <i>Aanbestedingswet</i> , produced in accordance with the format of the European Single Procurement Document as given in Appendices <b>A01</b> , <b>A02</b> and <b>B01</b> .
Tender	: the bid/proposal submitted by the Tenderer.
Tenderer	: an individual or legal entity submitting a Tender (bid) further to the Tender Procedure; also termed Tendering Party.
Tender Instructions	: the current document in which the Tender procedure is described.
Tender Procedure	: the European tendering procedure through which a Contract is to be awarded.
Third Party	: any natural person or legal entity upon whom a market party (the Tenderer) can call to meet the requirements of financial and economic capacity and/or technical and professional competence, regardless of the nature of the relationship between the market party and the Third Party.

## 1. Contracting Authority and Contract

### 1.1 TNO

The Netherlands Organisation for Applied Scientific Research, hereafter ‘TNO’, is a modern, theme-led Research & Knowledge organization. It was established in 1930 by Act of Parliament with the intention of maximizing the practical relevance of scientific research to the public sector, industry and society at large. The government of the day believed that this would enhance the innovative strength of the Netherlands and contribute to long-term economic growth.

TNO is a national institution acting in the general interest and, for the purposes of European policy and legislation, is therefore a ‘body governed by public law.’ Although it operates under the formal responsibility of the Minister for Economic Affairs, TNO enjoys complete independence and autonomy in its day-to-day activities.

The organization has approximately 3300 staff who work to develop and apply innovative knowledge. TNO conducts contract research on behalf of clients in all sectors, provides specialist advice and consultancy, and licenses the use of its many patents and the specialist software it has developed. TNO also tests and certifies products and services, issuing an independent quality assessment. The organization has spawned numerous commercial spin-offs to bring its innovations to market.

One of TNO’s key strengths is that it brings various scientific disciplines together under one roof. Those disciplines combine and interact to create groundbreaking and sustainable new solutions. Increasingly, TNO seeks collaboration with partners in government and industry, working alongside knowledge institutions and societal organizations at home and abroad. Through its varied activities, TNO stimulates economic growth and social renewal. The organization’s mission statement (as phrased in its 2015-2018 Strategic Plan) reads, “TNO connects people and knowledge to create innovations that boost the competitive strength of industry and the well-being of society in a sustainable way.” Its objectives are encapsulated in the motto, “TNO, Innovation for Life”.

For further information, see: [www.tno.nl](http://www.tno.nl).

### 1.2 Organizational structure

TNO’s high level of ambition demands an appropriate organizational structure and corporate culture. Staff must be given every support as they pursue innovation and productive cooperation. The current organizational unit structure is shown below:



All units are concerned with issues which are high on the national and European innovation agenda. The themes form the focus of the organization’s nine units, each of which is responsible for acquiring and performing contract research relevant to its specific theme and innovation areas.

Staff of the various divisions and expertise areas are based at nine regional offices located throughout the Netherlands. The organization’s head office is in The Hague and it is here that the central support departments (‘Shared Services Organisation’) are based.



### *Procurement*

The Procurement Department oversees all purchasing, procurement and tendering procedures on behalf of TNO, doing so in close cooperation with the department Sustainable Process & Energy Systems which is part of the unit Energy Transition of TNO.

As part of the Finance, Procurement & Legal (FPL) division, the Procurement Department is responsible for organizing and implementing all procurement processes in keeping with the corporate objectives of the organization.

### **1.3 Contract description**

The purpose of the current Tender Procedure is to select one (1) Contractor to supply/provide the Hydrogen supply system. The supplies/services/works and the manner in which they are supplied/provided must comply with the specifications and criteria given in the Tender documents, and notably the Programme of Requirements (see Chapter 8). There may be a combination of ‘hard’ and ‘soft’ requirements. The former are mandatory and must be met. The latter are in the nature of ‘preferences’ which should be taken into consideration to the greatest extent possible.

#### **1.3.1 Contract duration**

The Contract is entered into for a period of 2 year(s). The proposed date of commencement is Q1 of 2021. The Contract will therefore expire on Q1 2023. Before this time the project has to be finished. No period of notice is required on either side.

### *Options*

TNO is entitled – but not obliged – to extend the duration of the Contract under the same terms and conditions by 2 periods of each one years, commencing Q1 2023 and thereafter Q1 2024.

TNO is to give notice of its intention to exercise this option no later than three months prior to the due expiry date of the Contract (including any prior extensions).

A Contract can only be extended by mutual agreement of TNO and the Contractor.

TNO will make all reasonable efforts to allow the Contract to come into effect on Q1 of 2021.

#### **1.3.2 Current situation and assessment of future requirements**

This Tender document describes the scope of the hydrogen supply system as part of Field Lab Industrial Electrification (FLIE) development in the Port of Rotterdam.

The overall objective of the FLIE is to stimulate investment in, and implementation of, Power-to-X (heat and chemicals) technologies by developing innovative direct and indirect conversion processes for the chemical industry towards higher TRL's, while making use of renewable electricity and lowering the carbon footprint.

#### **1.3.3 Scope and content of the Contract**

The Contract for the system relates to the provision of supplies, services or works as specified in the Programme of Requirements as applicable.

Further to the current Tender Procedure, TNO also intends to issue a Contract for the system.

The scope is to engineer, manufacture, transport and install the hydrogen supply system (hereinafter called the Unit).

The Contract relates to the provision of supplies, services or works as specified in the Programme of Requirements (Chapter 8). The key points of this Contract include :

**BASIC ENGINEERING**

- Basic engineering package of the unit including the safety assessment (HAZOP) using the basis described in Chapter 8

**DETAILED DESIGN**

- Detailed design for the Unit using the developed Basic engineering package

**PROCUREMENT AND MANUFACTURING**

- Procurement and manufacture of equipment as per detailed design

**FACTORY ACCEPTANCE TEST**

- Factory acceptance test of the Unit

**TRANSPORTATION**

- Transportation of the Unit to a later to be defined location in The Netherlands

**CONSTRUCTION ON SITE**

- Installation of the Unit at the TNO given address

**SITE ACCEPTANCE TEST**

- Site acceptance test of the Unit at the TNO specified site

**COMMISSIONING & START-UP**

- Commissioning and start-up of the Unit

The tenderer SHALL plan and execute the necessary commissioning activities before the unit can be put in operation. Leak testing and verifying all instruments are part of this commissioning, prior to start-up of the Unit

**Purchase volume**

Delivery of one system.

**1.4 Socially responsible procurement**

Sustainability is an extremely important aspect of TNO's core business. Much of our research is concerned with managing the economic, environmental and social impact of developments within our adopted themes. We do so using the 'roadmap' approach. In addition, we devote very close attention to the manner in which we can minimize the negative impact – and ideally maximize the positive impact – of our own operations.

We therefore attach great importance to social and environmental responsibility: People and Planet. We acknowledge that our staff are essential to our mission. The core values of TNO – integrity, independence, professionalism and social responsibility – underpin the organization's strategy and all its activities.

In terms of environmental responsibility, our policy centres on the spearheads of energy efficiency, reducing the carbon footprint of business travel, and sustainable procurement practice. Further information can be found in the TNO Sustainability Report which forms part of the TNO Annual Report.

Socially responsible procurement practice is therefore an intrinsic part of the procurement agenda. All procurement decisions are taken in consultation with the TNO budget holders and involve careful consideration of sustainability aspects. Where relevant and possible, the sustainability aspects will be translated into sustainability requirements and/or preferences which will be included in the Tender Instructions document.

## 2. The Tender Procedure

The Tender Procedure is conducted in full compliance with the conditions of the Dutch *Aanbestedingswet* (Procurement Act), which in turn is based on relevant European legislation.

TNO has opted for the 'public' tendering procedure. This means that the Call for Tenders will be published on the TenderNed website at [www.tenderned.nl](http://www.tenderned.nl).

TNO has opted to apply the European public procurement procedure. This is because:

- i) based on the limited competition in the field to which the Contract pertains, a restricted number of Tenderes are expected whereupon the public procedure is likely to be more (cost-)efficient;

### 2.1 Schedule

The proposed schedule for the Tender Procedure is as follows:

No.	Action	Deadline
1.	Publication of Call for Tenders (on <a href="http://www.tenderned.nl">www.tenderned.nl</a> )	9 <sup>th</sup> of november 2020
2.	Final opportunity for interested parties to submit questions for first round of questions	18 <sup>th</sup> of November 2020
2.	Publication of (final) Memorandum of Information	After 18 <sup>th</sup> of november 2020
2.	Final opportunity for interested parties to submit questions for second round of questions	30 <sup>th</sup> of November 2020
3.	Publication of (final) Memorandum of Information	After 30 <sup>th</sup> of November 2020
4.	Final date (and time) for submission of Tenders	21 <sup>th</sup> of December 2020, 12.00 hours
5.	Announcement of Intention to Award	January 2021
6.	Final date for submission of evidential documents by intended Contractor	January 2021
7.	Final date for lodging an objection	January 2021
8.	Confirmation of Contract Award	January 2021

Dates are indicative. TNO reserves the right to amend the schedule but will of course observe all legislative requirements.

### 2.2 Tender conditions

#### 2.2.1 Acceptance

The submission of a tender is confirmation that the Tenderer accepts all applicable conditions.

#### 2.2.2 Formats

The Tenderer must use the templates and prescribed formats provided in the Appendices to the Tender Instructions. It is expressly forbidden to make any alteration to these templates without the prior consent of TNO.

#### 2.2.3 Self-declaration

The Tenderer must complete and submit a Self-declaration (Appendix **A01** and, if applicable, Appendix **A02** and/or **B01**) according to the following instructions.

The Tenderer must use Adobe Reader to open and complete Appendix **A01**, **A02** and **B01** (the European Single Procurement Document; ESPD). Opening Appendix **A01**, **A02** and **B01** in any other program may result in the loss of information that has been pre-entered by TNO. The submission of a Self-declaration in any form other than that included with the original tender will exclude the entire tender from further consideration. The Tenderer bears sole responsibility for opening Appendix **A01**, **A02** and **B01** and for submitting the Self-declaration in the prescribed manner.

#### 2.2.4 Order of precedence

Where any discrepancies between the contents of the various tender documents exists, the following order of precedence applies (in descending order of importance).

- Memoranda of Information, most recent first
- Tender Instructions and Appendices
- Call for Tenders.

#### 2.2.5 Contact person and communication

All communication with respect to the Tender Procedure will only take place through Tendered and in a manner other than prescribed in this Tender Instructions.

If legal contact with TNO is required / necessary, communication only takes place at TNO's contact point below, which communication must always be done in writing via the e-mail address mentioned below.

Name : Paul Springer  
Position : Procurement advisor  
Department : Procurement  
Correspondence : P.O. Box 96800, 2509 JE, The Hague  
Visitors : Anna van Buerenplein 1, 2595 DA, The Hague, The Netherlands  
Email : paul.springer@tno.nl

Tenderers can not derive rights from verbal statements, promises and suggestions from TNO employees or agents, made in connection with the Tender Procedure and / or tender documents. Tenderers can only rely on written information provided by or on behalf of TNO.

Failure to comply with the above conditions, or any attempt to influence the judgement or decisions of any person involved in the Tender procedure, will result in immediate disqualification.

#### 2.2.6 Language

Tenders must be submitted in the English language. Tenders submitted in other languages than the English language will be excluded from further participation in this Tender procedure. Evidential documents which cannot be submitted in the English language, should be submitted in the original language but the Tenderer should be able to provide a (sworn) translation on request.

#### 2.2.7 Multiple tenders

The submission of multiple tenders is not permitted. Each interested party may submit only one tender regardless of the capacity in which it does so (independent Tenderer, lead contractor, subcontractor or member of a combination). A group of companies, as defined by Article 2:24b of the Procurement Act, may submit only one tender unless it is possible to show that there is no dependent relationship between the companies, i.e. no company is able to influence the decisions or operations of another. It is only permissible for two or more companies within the same group to submit competing tenders if they can demonstrate their independence and confidentiality of information (the 'Chinese wall' principle) to the satisfaction of TNO by any means they consider appropriate. Companies forming part of the same group can submit a single tender which specifies their respective roles (lead contractor and subcontractor or acting as a Combination).

#### 2.2.8 Combination

A Combination is defined as an alliance of companies which submits a tender as a single party.

##### Coordinator

Where a tender is submitted by a Combination, a Self-declaration (Appendix **A01**) must be completed by its coordinator, who must provide the following required information *with regard to the Combination itself*, in addition to the standard information required by the Self-declaration.

- (i) In Part IIA, under the heading 'Manner of Participation', tick the 'Yes' box to indicate that the Tender is being submitted on behalf of a Combination.
- (ii) In Part IIA, under the heading 'Manner of Participation' at 'If so', subsection a), the coordinator should state which of the eligibility requirements he fulfils (if applicable) and the specific tasks for which he is responsible.

- (iii) In Part IIA, under the heading 'Manner of Participation' at 'If so', subsection b), enter the official name(s) and legal structure of all other members of the Combination.
- (iv) If the Combination has been formalized and has a registered trading name, this should be entered in Part IIA under 'Manner of Participation' at 'If so', subsection c).

#### Other members

Each of the other Combination members must complete and submit a separate ESPD (Appendix **A01**) to include the following information regarding the Combination itself (in addition to all other required information):

- i) In Part IIA under 'Manner of Participation', tick the 'Yes' box to indicate that the Combination member is taking part in the Tender Procedure alongside other partners.
- ii) In Part IIA, under the heading Manner of Participation, subsection a), the Combination member should state which of the eligibility requirements he fulfils (if applicable) and the specific tasks for which he is responsible.
- iii) In Part IIA, under the heading Manner of Participation, subsection b), enter the official name(s) and legal structure of all other members of the Combination.
- iv) If the Combination has been formalized and has an official trading name, this should be entered in Part IIA under Manner of Participation, subsection c).

By submitting the tender, all members of the Combination accept joint and individual responsibility for the fulfilment of all obligations and responsibilities further to the Tender Instructions, the Tender Procedure and the Contract itself should this be awarded to the Combination.

#### **2.2.9 Subcontractor**

A partnership comprising a lead contractor and a subcontractor can submit a single Tender. The lead contractor is at all times responsible and liable in law for the proper performance of the Contract activities, including those delegated to the subcontractor.

- Use of subcontractor's credentials to fulfil Eligibility Requirements  
If the Tenderer is reliant on the financial, economic, technical and/or professional capacity of a Subcontractor to fulfil the Eligibility Requirements, that subcontractor is also regarded as a Third Party. In such instances, the Tenderer must follow the instructions given in Para. 2.2.10 concerning reliance on the resources of one or more Third Parties.
- Subcontractor's contribution to fulfilment of Contract  
Where the Tenderer meets all Eligibility Requirements unaided but nevertheless wishes to deploy a subcontractor to fulfil any part of the Contract, the following provisions apply during or after the Tender Procedure.
  - Requirements prior to Contract Award (during Tender Procedure)

Information regarding to subcontractors When using one or more subcontractors, tenderer has to provide information about the use of subcontractors. This information has to be provided in a separate document (free format, maximal 1 A4).

The following information have to be provided in this document:

- Main activity which the subcontractor will carry out including an organization chart and responsibilities.
- Communication structure with the subcontractor
- Contractual agreements which are in place
- Provide information how Tenderer maintain consistent quality in the complete process. Provide information why activities are outsourced, the benefit of the approach and how quality (technical solution, scope, schedule, team dynamic) is maintained.
- Provide information about the tools and facilities from the subcontractor that are relevant to engineering and manufacturing during project execution.
- Any past experience in collaboration within reference projects

#### ***Instructions for the Tenderer when completing the Self-declaration (Appendix A01)***

The Tenderer should state whether he does or does not intend to involve one or more subcontractors in the performance of the Contract by completing Part II D of the Self-declaration (Appendix **A01**).

- If there is no intention to involve a subcontractor:

- The Tenderer should tick the box marked 'No' in Part II D of the Self-declaration (Appendix A01).
- If the Tenderer does intend to involve one or more subcontractors:  
The Tenderer should tick the box marked 'Yes' Part II D of the Self-declaration (Appendix A01), and enter (only) the names of those subcontractors in the space provided beneath 'If so'.

***Instructions for submission of evidential documents***

At the request of TNO and within the period specified in Para. 7.1., the Tenderer who is identified as the Provisional Contractor (subject to confirmation by TNO) is required to submit the corresponding information that he submitted about himself (in Parts II A, II B and III of the Self-declaration) for all subcontractors listed in Part II D of the Self-declaration (Appendix A01). The Tenderer must provide this information by submitting a Self-declaration form (Appendix B01) in which the relevant sections have been completed by each subcontractor.

The subcontractor's Self-declaration (Appendix B01) must be duly signed by an authorized company officer. The Tenderer must establish the signatory's authority by enclosing a certified extract from the Chamber of Commerce Trade Register with the subcontractor's Self-declaration form (Appendix B01).

***Instructions for the Tenderer when completing the Self-declaration (Appendix A01)***

The Tenderer should not complete Part II D of the Self-declaration.

- Required action between notification of Award and commencement of Contract  
Where the successful Tenderer intends to involve one or more subcontractors in the performance of the Contract, TNO must be informed, in writing, of the name or names of the subcontractors who are to perform the contract, of the name of the duly appointed legal representative of each subcontractor, as well as the name, telephone number and email address of a contract person for each subcontractor. This information is to be provided no later than seven days prior to the date of commencement of the Contract that was agreed by TNO and the Contractor or subcontractor.
- Required action during performance of Contract  
Any subcontractors engaged by the Contractor during the performance of the Contract must be approved by TNO. Such approval must be confirmed in writing before the subcontractor is permitted to begin work on the contract (or part thereof) assigned to him by the Tenderer. This provision applies where the Contractor was not required to name specific subcontractors during the Tender Procedure and where new subcontractors are recruited after the Contract work has commenced. If there are any changes to the information relating to a subcontractor, the Contractor or subcontractor must inform TNO immediately and in writing.

In order to approve a subcontractor, TNO must ascertain that none of the Grounds for Exclusion listed in the original Tender Procedure apply. TNO may require the Contractor or subcontractor to submit evidential documents to establish that this is the case. The documents to be requested by TNO are limited to those listed in Section 5. 1 of the Tender Instructions.

If TNO determines that one or more Grounds for Exclusion does indeed apply to the subcontractor, approval will not be granted. TNO will allow the Contractor to propose another subcontractor, whereby the same approval procedure will be followed. TNO will hold the Contractor and subcontractor(s) responsible for the correct and timely execution of the Contract, regardless of any delay due to a subcontractor having been excluded from participation.

**2.2.10 (no) Reliance on Third Party resources**

The Tenderer may call upon the financial, economic, technical and/or professional capacity of one or more Third Parties. Where the Third Party is to provide financial resources, both the Tenderer and that Third Party are jointly responsible and liable in law for the proper execution of the Contract (if awarded).

Where the Tenderer calls upon the technical or professional capabilities of one or more Third Parties, those Third Parties must take an active part in the performance of the Contract activities (assuming that the Contract is indeed awarded to the Tenderer).

No reliance on Third Party resources

A Tenderer who does *not* intend to make any use of the financial, technical or professional capabilities of any Third Party should tick the box marked 'No' in Part II C of the Self-declaration (Appendix A01).

Reliance on Third Party capacityA) Instructions for completion of Tender

If the Tenderer *does* intend to call upon the financial, economic, technical or professional capabilities of one or more Third parties, he should fill in Part II C of the Self-declaration (Appendix **A01**) as follows:

1. tick 'Yes' in the appropriate section
2. indicate *which* of the Eligibility Requirements will be met further to the involvement of the Third Party
3. state *how* the Third Party's involvement will fulfil the relevant Eligibility Requirement(s).

The Tenderer who intends to call upon the financial, economic, technical and/or professional capacity of one or more Third Parties should also provide:

4. a separate Self-declaration form (Appendix **A02**) for each such Third Party, in which parts II A, II B and III have been completed. The forms must be signed by the duly authorized legal representative of the Third Party concerned, and this person's authority to sign must be confirmed by means of a certified extract from the Chamber of Commerce Trade Register. Note that the extract does not have to be submitted at the same time as the Tender itself; TNO will request further information in accordance with the following provisions.

Addition requirement where Tender relies on the technical or professional capabilities of one or more Third Parties

5. Where the Tenderer intends to call upon the technical or professional capabilities of one of more Third Parties, a list of reference projects must be provided for each Third Party (in addition to that relating to the Tenderer). The list of Third Party reference projects should be compiled using the prescribed template provided as Appendix **A03**.

B) Instructions for Provisional Contractors who intend to call up the resources of one or more Third Parties

If the Tenderer selected by TNO and thus identified as the Provisional Contractor (subject to confirmation) intends to call upon the financial, economic, technical or professional capacity of one or more Third Parties, that Tenderer must submit the following documents on request, within the period stipulated in Para. 7.1 of the Tender Instructions:

1. A declaration produced and duly signed by each Third Party confirming that the Tenderer will have access to the resources stated. Where the Tenderer intends to call upon the financial and economic capacity of the Third Party, the declaration must be made using the template provided as Appendix **B02**. In the case of technical and/or professional capacity, the statement should be made using the template provided as Appendix **B03**.
2. A certified extract from the Chamber of Commerce Trade Register pertaining to each Third Party for whom a Self-declaration (Appendix **A02**) is submitted. The extract should confirm that the legal validity of the signature on the Self-declaration (i.e. the signatory is an authorized officer of the company concerned).
3. All evidential documents listed in Para. 5.1 for each of the Third Parties named in the Tender, confirming that none of the Grounds for Exclusion apply.

Supplementary provision for a proposed Contractor intending to call upon the financial and economic capacity of one or more Third Parties

4. If the Tenderer selected by TNO and thus identified as the Provisional Contractor intends to call upon the financial and economic capacity of one or more Third Parties, that Tenderer must, at the request of TNO and within the period stipulated in Para. 7.1 of the Tender Instructions, submit all documents listed in Para B (concerning 'Instructions for provisional contractors') together with the evidential documents which establish that each of the Third Parties meets the Eligibility Requirements in respect of financial and economic status. (This replaces the requirement for the Tenderer to submit evidence of its own financial and economic status.)

**2.2.11 Alternative Tenders**

The submission of alternative Tenders is not permitted. Alternative Tenders will be disregarded.

**2.2.12 '...or equivalent'**

Where the Tender documents, including Appendices, refer to any specific brand name, patent, type, model, manufacturing process, etc., the words '... or equivalent' should be understood to follow.

**2.2.13 Reserved rights**

1. TNO may, at its own discretion and without having to state reasons, decide not to award the Contract to any of the parties from whom Tenders have been received. Tenderers are not entitled to compensation for any form of loss or damage directly or indirectly incurred as a result.
2. TNO reserves the right to suspend or cancel the entire Tender Procedure. Tenderers are not entitled to compensation for any form of loss or damage directly or indirectly incurred as a result.
3. TNO reserves the right to subject all information provided by Tenderers to further scrutiny for the purposes of verification. Referees may be contacted without further notice.

The Tenderer is aware that the provision of false or incomplete information will result in disqualification from the Tender Procedure. Any agreements made prior to the discovery of the false or incomplete information will be revoked and contracts will be annulled. No compensation will be paid. TNO expressly disclaims liability for loss or damage howsoever caused.

**2.2.14 Confidentiality**

The Tenderer undertakes to treat all information which may affect the commercial interests or scientific integrity of TNO in the strictest confidence. Information is provided on a 'need to know' basis and must not be disclosed to any employee or agent of the Tenderer's organization or those of a Third Party (including consultants and subcontractors) unless such disclosure is essential to the effective preparation of the Tender or, where applicable, the proper performance of the Contract. TNO acknowledges the confidentiality of all information provided in support of the Tender and undertakes not to disclose such information to unauthorized parties. However, Tenderers are advised that TNO is under a legal obligation to explain and justify the Award Decision, which may entail the disclosure of information pertaining to the Tenders received, both successful and unsuccessful.

**Confidentiality Agreement**

The winner of the tender procedure will sign an NDA with TNO.

**2.2.15 Distortion of competition**

Attempts to distort fair competition, such as collusion or cartel-forming, are grounds for disqualification. Where TNO has plausible indicators of any such attempt, the Tenderer will first be given an opportunity to prove otherwise. If, in the sole opinion of TNO, the Tenderer is not able to provide a satisfactory defence, he will be excluded from the remainder of the Tender Procedure.

**2.2.16 Withdrawal of Tender**

Once a Tender has been submitted it cannot be withdrawn. The Tender will remain in place throughout its period of validity.

**2.2.17 Period of validity**

The Tender represents a formal offer which must remain valid for ninety (90) days from the deadline for the submission of Tenders. This period of validity is automatically extended until the point at which the final Contract is signed with the Tenderer who emerges as the Provisional Contractor.

If an objection to the Award Decision is placed before the judicial authorities, the period of validity will (if necessary) be further extended by a period of thirty calendar days following the day on which the court returns its judgment.

**2.2.18 Terms and Conditions of Contract**

The Award of the Contract is to be effected by means of:

- The Contract Agreement, the draft version of which is included as Appendix **C02**.
- TNO's General Terms and Conditions of Procurement, version of June 2014, as included as Appendix **C03**, except where the Tender Documents and/or Agreement include alternative provisions, in which case the Tender Documents and/or Agreement take precedence.

As provided by Para. 2.3 of the Tender Instructions, the Tenderer is able to propose amendments to the current formulation of the Contract and exceptions to the General Terms and Conditions of Procurement. The definitive Contract and Terms and Conditions of Procurement will accompany the final Memorandum of Information.

TNO will confirm the amendments to be made, which will be listed in the final Memorandum of Information.

Acceptance of the final version of the Contract and/or the amended Terms and Conditions of Employment is to be regarded as a minimum requirement. Failure to meet this requirement in full will result in exclusion from the remainder of the Tender Procedure.

The submission of a Tender indicates the Tenderer's full acceptance of all terms and conditions applicable at the time of submission.

#### **2.2.19 Suppliers' Terms and Conditions; Provisional Tenders**

TNO shall not be bound by any Terms and Conditions of Supply imposed by the Tenderer or by any Third Party, including but not restricted to subcontractors, auxiliaries or agents, at any time during the Tender Procedure or thereafter, during the performance of the Contract and related activities. An attempt to impose Terms and Conditions shall render the Tender provisional and hence invalid. Tenders which are deemed provisional for this or any other reason will be excluded from further consideration.

#### **2.2.20 Legally valid signature**

The Tender and all related documents must be duly signed in ink by an authorized representative of the Tenderer organization. The hard copy of each document is then scanned and uploaded to the TenderNed site. The signatory's authorization to sign must be established by means of a certified extract from the Chamber of Commerce Trade Register. If the signatory is not listed as an authorized representative of the Tenderer organization in the Trade Register, a mandate signed by a registered company officer must be provided. The extract and mandate must be submitted at the first request of TNO in accordance with the instructions and deadline stated in Para. 7.1 of the Tender Instructions.

The signature under the Tender also applies as a signature under the Self-declaration, Article 2.2.3, the form "ESPD".

#### **2.2.21 Reimbursement of Tender costs**

All costs incurred further to the production and submission of the Tender are to be borne by the Tenderer. TNO shall not provide any form of reimbursement.

#### **2.2.22 Statement of prices and costs**

Prices and costs must be stated in euros (EUR) and excluding Value Added Tax. The prices and costs are to remain applicable throughout the Contract term except where the Contract terms make alternative provisions. TNO wishes to make clear that price negotiations do not form part of the Tender Procedure.

#### **2.2.23 Publicity**

The Tenderer and any partners and/or subcontractors of the Tenderer must not make any public statement or comment about the Tender Procedure, except with the prior written permission of TNO.

#### **2.2.24 Intellectual property rights**

Except where expressly permitted under Copyright Law or where necessary for the successful preparation of a Tender, no part of the tender documents may be reproduced in any form, by print, photocopy, DVD, CD-ROM, microfilm or other means, without the prior written permission of TNO. Tenders and all accompanying documents submitted further to the Tender Procedure become the property of TNO upon receipt.

#### **2.2.25 Use of TNO logo**

It is not permitted to copy, modify or otherwise use the TNO logo on any documents submitted by the Tenderer further to the Tender Procedure.

### **2.3 Further information (questions)**

The Tender documents, including the Tender Instructions and Appendices, have been compiled with the greatest possible care. Interested parties are able to submit questions and requests for clarification at any time before the deadlines given in the schedule in Para. 2.1. The questions may relate to the contents of the tender documents or to the Tender Procedure itself. Clarification may be sought where there are any apparent ambiguities or discrepancies between documents. Further information should be requested within the stated period and in the manner described in this paragraph. A Tenderer who

fails to request information on time and in the prescribed manner will forfeit his right to object to any identified defects at a later date.

During the period between the Call for Tenders and the information deadline, Tenderers may also submit grounded questions, suggestions for amendments to the text of the Tender documents, including the draft Contract included as Appendix **C02** and TNO's General Terms and Conditions of Procurement (Appendix **C03**). Suggestions should be restricted to textual improvements, editorial corrections and clarifications; they may not affect the essence of the Contract or the applicable Terms and Conditions. TNO reserves the right to act upon or reject such suggestions at its sole discretion.

Questions, comments and requests for supplementary information must be in English. They must only be submitted in writing, in the form of an email, and must use the 'editable' MS Excel template provided in Appendix **C01**. The specific aspect of the documents or procedure to which the query refers should be clearly indicated using the drop-down menu in Excel. The file must then be submitted by email to the TNO contact person named in Para. 2.2.5.

**IMPORTANT: Queries will not be accepted via the TenderNed system (even though it has a module for this purpose). All questions and requests for further information must be submitted directly to the TNO contact person.**

The TNO contact person will compile one or Memoranda of Information which provide the answers to the questions submitted. The source of the questions will not be identified by name. The deadline for submitting questions is given in Para. 2.1.

The Memoranda of Information will be published at [www.tenderned.nl](http://www.tenderned.nl) in accordance with the schedule in Para 2.1. All questions and the answers provided are to be regarded as an integral component of the Tender Instructions. In principle, the Tender Instructions document becomes definitive with the publication of the final Memorandum of Information. TNO advises interested parties to delay submitting a Tender until the final Memorandum of Information has been published since it may include information which affects the content of the Tender.

Responsibility for reading and acting upon the Memoranda of Information in a timely manner rests with the Tenderer. If the production of the final Tender is jeopardized by technical problems affecting the TenderNed site, the Tenderer should contact the TNO contact person named in Para. 2.2.5, and TenderNed, without delay. If the TenderNed site is indeed 'down', TNO will implement an alternative course of action (subject to the provisions of the Procurement Act.)

TNO advises Tenderers to delay submitting a Tender until the final Memorandum of Information has been published. This may include information and details of changes to the Tender Instructions that affect the process of drawing up a Tender.

#### **2.4 Disputes and applicable jurisdiction**

All aspects of the Tender Procedure are subject to Dutch law. Any dispute requiring legal adjudication must in the first instance be placed before the Court in Interlocutory Proceedings in the District of The Hague, Prins Clauslaan 60.

Tenderers who object to (any part of) the Tender Procedure, (any part of) the information provided, or any other aspect directly or indirectly relating to the Tender Procedure and likely to affect its outcome, must bring their objections to the attention of the TNO contact person named in Para. 2.2.5 at the earliest possible opportunity.

The period in which a formal objection can be lodged against the Award Decision and/or the Tender Procedure is twenty calendar days from the date on which the Award Decision is issued. The objection must be made in writing and served at the registered business address of TNO within the twenty-day period. Where formal proceedings have not been instigated within the designated period, all rights shall lapse.

Any Tenderer wishing to lodge an objection or appeal is requested to notify TNO prior to commencing proceedings.

Where a court order challenging the Award Decision and/or the Tender Procedure is sought, in a timely and legally valid manner, the Tenderer to whom the Contract has been provisionally awarded is expected to intervene. If the Tenderer fails to do so, they will forfeit their right to a judicial procedure or to third-party proceedings if the judgment in the first instance requires TNO to amend or withdraw the Award Decision. It is in the interests of all parties to create clarity at the earliest possible opportunity and this requires all arguments to be presented openly and without delay.

## 2.5 Submission of the Tender

### 2.5.1 Digital submission

The Tender comprises all forms in Appendices **A01 to A05** which must be completed in full and signed by a legally authorized representative of the tendering organization. The formats given in the Appendices must be used.

For the signature requirements, see Para. 2.2.20.

For the current tender procedure, TNO has opted to use the online TenderNed system. The completed Tender documents must be uploaded to the TenderNed secure document safe no later than 12:00 hours on 21 december 2020.

Tenders which are submitted beyond the published deadline or which are not uploaded to TenderNed's secure document safe in accordance with the instructions given in this document will be excluded from the remainder of the Tender Procedure. Responsibility for the timely and correct submission of documents rests with the Tenderer at all times.

Tenderers are urged to read the instructions on the TenderNed site, particularly those relating to the uploading of documents to the secure document safe. Note that the upload must be confirmed using the 'registration wizard' which has two-factor authentication requiring users to enter a code which has been sent to them as a text (SMS) message.

Tenderers are advised to allow ample time for the uploading of documents. If a technical problem occurs which places the timely submission of the Tender at risk, the Tenderer should immediately report this situation to TenderNed AND to the TNO contact person named in Para. 2.2.5. If TenderNed does experience a technical problem that makes it impossible for tenders to be submitted shortly before the deadline and TNO is unaware of any Tenders that, despite the technical problem, have been successfully uploaded to TenderNed's secure document safe, then TNO will extend the deadline for submission of Tenders, subject to the restrictions imposed by Article 2.109 of the Procurement Act.

TNO advises Tenderers to take note of the contents of Article 2.109a, further to which they should be prepared to submit an encrypted code identifying their Tender should there be any technical problem preventing the full Tender being uploaded to TenderNed.

### 2.5.2 Structure and presentation

The following instructions apply to the structure and presentation of the Tender submission:

**Part A** comprises the following documents (files):

**Appendix A01** Self-declaration by Tenderer (European Single Procurement Document; ESPD )

**Appendix A02** Self-declaration by Third Parties on whose resources or abilities the Tenderer Relies (European Single Procurement Document; )

**Appendix A03** Prescribed format for reference projects

**Appendix A04** Schedule of prices / charges

**Appendix A05** Prescribed format for answering questions/notification of preferences

All forms must be completed in full and then printed out. The paper hard copy is to be signed in ink by a legally authorized representative of the Tenderer organization and then scanned to create a digital (PDF) version.

The various PDF files (Appendices **A01 to A05**) are to be placed in a single folder which must then be compressed ('zipped'). This folder should be named xxxx\_**part A**, where xxxx is replaced by (part of) the name of the Tenderer organization. Upload this compressed folder to TenderNed's secure document safe.

### 3. Evaluation of Tenders and Tenderers

#### 3.1 Evaluation team

A multidisciplinary team will be assembled to undertake the qualitative evaluation of the Tenders. Its members will include experts in the subject matter and processes involved. The team members evaluate the Tenders on the basis of quality alone; they are not informed of the financial aspects.

Each member of the evaluation team assesses the Tender against the qualitative (sub sub) award criteria, doing so independently and without reference to the other members of the team. A meeting is then held at which the individual evaluations are compared and discussed. The overall score given for each of the (sub sub) award criteria is the average of the individual scores.

#### 3.2 Evaluation procedure

The evaluation procedure consists of several phases, as described in Chapters 4 to 8.

- Chapter 4** : Evaluation with regard to timely submission, form, presentation and completeness
- Chapter 5** : Evaluation against Eligibility Requirements and Grounds for Exclusion. These are mandatory provisions, whereby non-compliance will result in immediate and irrevocable exclusion from the remainder of the Tender Procedure.
- Chapter 6** : Evaluation against the Award Criteria. This is based on a numerical score for each material aspect.
- Chapter 7** : Evaluation of evidential documents which the Provisional Contractor is requested to submit to TNO.
- Chapter 8** : TNO's evaluation against the Minimum Requirements (with regard to Contract performance) and the Programme of Requirements (PoR).

The activities involved in the overall evaluation procedure are (in chronological order):

- Confirming timely submission; opening the TenderNed secure document safe; establishing the number of Tenders submitted.
- Evaluation of form, presentation and completeness.
- Evaluation against Grounds for Exclusion and Eligibility Requirements
- Evaluation against Minimum Requirements
- Evaluation of Tenders which have passed the preceding stages, against the Award Criteria.

Based on the overall evaluation, TNO will rank the Tenders in order. The Tender in first place is the '*Economically Most Advantageous Tender based on the Price-quality Ratio*' ('*Best PQR*').

At any time during the evaluation procedure, TNO may contact a Tenderer to request clarification where necessary. Tenderers are expected to provide a response within 48 hours.

## **4. Evaluation of timely submission, form, presentation and completeness**

### **4.1 Timely submission**

The Tender must be submitted before the published deadline. Any Tender which fails to meet this requirement will be deemed invalid and excluded from further consideration.

### **4.2 Form, presentation and completeness**

Tenders will be assessed in terms of completeness and compliance with the published instructions. The omission of required information will result in disqualification.

Tenders which are incomplete and/or fail to comply with the presentation instructions will be declared invalid and excluded from further consideration.

## 5. Evaluation against Grounds for Exclusion and Eligibility Requirements

### 5.1 Grounds for Exclusion

The Tenderer will be evaluated against the Grounds for Exclusion. The self-declaration (European Single Procurement Document) includes a section which requires the Tenderer to confirm that none of the Grounds for Exclusion applies. If one or more of the Grounds for Exclusion does apply, the Tenderer will be disqualified and excluded from the Tender Procedure.

Where any of the Grounds for Exclusion applies to any one member of a Combination, the entire Combination is excluded from the Tender Procedure.

Where the Tenderer calls upon the resources or abilities of one or more Third Parties, as described in Para. 2.2.10, and one or more Grounds for Exclusion applies to any of those Third Parties, TNO will disallow the involvement of that Third Party. The Tenderer will then be given an opportunity to find another Third Party able to provide the necessary resources. If the Tenderer is unable to do so within the allotted period, or if the replacement Third Party is also subject to any other Grounds for Exclusion, the Tenderer will be excluded from the remainder of the Tender Procedure.

In the first instance, a duly completed and signed Self-declaration form (Appendix **A01**) is enough to establish that none of the Grounds for Exclusion applies to the Tenderer. In the case of a Third Party, the Self-declaration form in Appendix **A02** is required. If the Tenderer is identified as the Provisional Contractor, further evidence will be required. At the request of TNO, that Tenderer must provide the following evidential documents within the period stated Para. 7.1. In the case of a Combination, each individual member of that combination must submit these documents within the period stated Para. 7.1. Where the Tenderer calls upon the resources or abilities of one or more Third Parties, the Tenderer must submit these documents on behalf of each Third Party within the period stated Para. 7.1.

The evidential documents in question are:

- A certified extract from the Chamber of Commerce Trade Register pertaining to the Tenderer, or in the case of a Combination, to each member individually. The extract(s) must be dated no more than six months prior to the date of submission.
- A certified extract from the Chamber of Commerce Trade Register pertaining to each Third Party on whose resources the Tenderer intends to rely. The extract(s) must be dated no more than six months prior to the date of submission.
- A Certificate of Good Conduct (GVA) by the Tenderer or - in the case of a Combination - of any combinant and/or - if the Tenderer appeals to one or more Third Parties - every Third Party to which the Tenderer appeals. The Certificate of Good Conduct (GVA) is dated no more than two years prior to the date of submission of the Tender. To apply for a procurement statement, the Tenderer, combinant and/or Third Party must consult the Justis website ([www.justis.nl](http://www.justis.nl)) and follow the instructions contained therein regarding the application for a Certificate of Good Conduct;
- A declaration issued by the Tax Administration of the Tenderer or – in the case of a combination – of any combinant and/or – if the Tenderer appeals to one or more Third Parties – every Third Party to which the Tenderer appeals. The declaration must at the time of submission of the Subscription not exceed six months to prove that the Tenderer, combinant and/or Third Party has fulfilled his obligations under applicable legal provisions applicable to him relating to the payment of national insurance premiums or taxes.

Tenderers are reminded that it can take several weeks to obtain some types of evidential document. It is therefore advisable to apply for them at the earliest possible moment. It will then be possible to produce the documents when required. It should also be noted that Tenderers are responsible for the timely submission of evidential documents pertaining to any Third Parties on whose resources they intend to rely. TNO therefore advises Tenderers to approach those Third Parties as soon as possible to make the necessary arrangements. Third Parties should be made aware of the time needed to obtain some documents.

A Tenderer who fails to submit the requested evidential documents (pertaining to himself or to any Third Parties) on time will be excluded from the Tender Procedure. TNO may then invite the party who came second in the evaluation process to submit evidential documents.

### 5.2 Evaluation of Eligibility Requirements

A Tenderer must be able to demonstrate the level of expertise and skill required to perform the Contract activities. These are termed the 'Eligibility Requirements'.

The Tenderer is evaluated against the Eligibility Requirements as formulated for the Tender. If the Tenderer intends to call upon the professional expertise of one or more Third Parties, as described in Para. 2.2.10, TNO will assess whether each of those Third Parties fulfils the Eligibility Requirements.

The Eligibility Requirements apply to several aspects: financial and economic capacity, technical and professional ability, and professional qualifications. The Tenderer and/or the Third Parties on whose capacity the Tenderer relies must meet all requirements in order to be considered for the Contract.

## 5.2.1 Financial and economic capacity

### 5.2.1.1 Insurance

The Tenderer must hold full liability insurance with cover of at least € 2.000.000 per event giving rise to damage or series of related events, or must be willing to meet this requirement if identified as the Provisional Contractor. The insurance cover must be in place for the entire term of the Contract.

In the first instance, a duly completed and signed Self-declaration form (Appendix **A01**) is sufficient to establish that this requirement has or will be met. If, for the purposes of the present Eligibility Requirement, the Tenderer intends to rely on the financial and economic capacity of a Third Party, a separate Self-declaration must be submitted using the template provided as Appendix **A02**.

### 5.2.1.2 Reference projects

To support the evaluation of technical and professional competence, the Tenderer is required to submit one or more reference projects using the template provided in Appendix **A03**. These reference projects should demonstrate that the Tenderer has adequate experience and possesses the skills which make up the core competencies listed below. For each core competency, the Tenderer should refer to *one* of the reference projects in **A03**. It is not necessary to list a separate reference project for each core competency; one project may be used to demonstrate several competencies.

To demonstrate adequate experience in the core competencies listed below, the Tenderer should submit details of reference projects as part of the tender. This is accomplished using Appendix **A03**, which must be completed in full and signed in ink by a duly authorized representative of the Tenderer organization. If the Tenderer intends to call on the technical or professional resources of one or more Third Parties, a completed and signed form (Appendix **A03**) should also be submitted in respect of each Third Party, stating the core competency /competencies to which it refers.

If any of the reference projects has yet to be completed, only the results achieved thus far should be cited. A prognosis of results will not be accepted.

Core competency 1	
1.	The Tenderer has experience in designing, engineering, building and commissioning electrolyser systems (complete systems, including balance of plants and power conditioning).
2.	<i>Reference project:</i> During the 3/5 years prior to the date of the Call for Tenders, the Tenderer completed a project which demonstrates core competency 1 and which had a contract value of at least € 200.000 ex. VAT. The project must have been completed in accordance with all the contractual conditions agreed at the time, including those relating to lead time and budget.

Core competency 2	
1.	The Tenderer has experience in designing flexible container or skid mounted units.
2.	<i>Reference project:</i> During the 3/5 years prior to the date of the Call for Tenders, the Tenderer completed a project which demonstrates core competency 2 and which had a contract value of at least € 100.000 ex. VAT. The project must have been completed in accordance with all the contractual conditions agreed at the time, including those relating to lead time and budget.

Core competency 3	
1.	The Tenderer has experience in integrating electrolyser infrastructure into full fledged supply systems (including storage and process control).
2.	<i>Reference project:</i> During the 3/5 years prior to the date of the Call for Tenders, the Tenderer completed a project which demonstrates core competency 3 and which had a contract value of at least € 200.000 ex. VAT. The project must have been completed in accordance with all the contractual conditions agreed at the time, including those relating to lead time and budget.

TNO reserves the right to verify all references TNO assumes that the Tenderer will have informed its referees accordingly and has obtained their permission. Where the Tenderer has not demonstrated the necessary experience in all competencies, the Tender will be declared invalid and excluded from the remainder of the Tender Procedure.

#### 5.2.1.3 Environmental management measures

TNO has implemented an active Corporate Social Responsibility (CSR) policy and expects all Tenderers to take a similar approach. In terms of their technical/professional competence and quality, environmental management systems are subject to the following requirements:

The Tenderer must implement appropriate environmental management measures to minimize any adverse impact further to the execution of the Contract (as provided by Article 2.93 g of the Procurement Act).

The Tenderer must demonstrate that he/she pursues an active environmental policy, must be in full compliance with all extant environmental legislation, and must be in possession of all permits and licences required for the performance of the Contract activities.

In the first instance, the Tenderer can establish compliance with these requirements by means of the Self-declaration (see Appendix B06). Within five days of being requested to do so by TNO, the Tenderer identified as the Provisional Contractor is required to submit evidence in the form of:

1. An ISO 14001 certificate or EMAS registration.
2. (If not certified): a detailed description of the environmental management activities undertaken by the Tenderer organization. This description should clearly establish that the Tenderer has implemented measures which are at least equivalent to those of the ISO 14001 certificate and/or EMAS registration.

#### 5.2.1.4 Quality standards and certification

TNO attaches importance to the quality of the Tenderer's organization, i.e. the manner in which operational processes are managed and the measures taken to maximize client satisfaction.

The Tenderer should provide a full description of the measures taken to ensure that quality management is fully integrated within the organization. The Tenderer must also state how quality is to be safeguarded during the performance of the Contract.

In terms of technical competence and/or professional competence and quality, the following requirements apply with regard to quality standards and certification (further to the provisions of Art. 2.96 of the Procurement Act):

- The Tenderer should be in possession of a valid ISO 9001:2008 certificate (or equivalent) issued by a recognized audit authority, or a current internal quality handbook which meets or exceeds all requirements of the ISO 9001:2008 standard.
- The Tenderer should be in possession of a valid ISO 27001:2005 certificate (or equivalent) issued by a recognized audit authority, organization, or an information security management system which meets or exceeds all requirements of the ISO 27001:2005 standard.
- In the first instance, compliance with these requirements can be demonstrated by means of the Tenderer's Self-declaration (see Appendix).

Within five working days of being requested to do so by TNO, the Tenderer identified as the Provisional Contractor is required to submit evidence in the form of an ISO 9001:2008 certificate. If the Tenderer wishes to submit an alternative certificate which is claimed to be equivalent, it must be accompanied by:

- a summary of the relevant standard's requirements
- an account and summary of the manner in which compliance with these requirements is safeguarded in practice (no more than one A4 page).

The Tenderer should also provide a Declaration of Intent from the management which establishes:

1. that the organization's management endorses the contents of the internal quality handbook and monitors compliance
2. that the organization's management endorses the contents of the internal information security handbook and monitors compliance.

- If the Tenderer is in possession of certificates, copies thereof must be submitted on request from TNO within seven (7) calendar days.
- TNO reserves the right to inspect the original copies of the certificates following the award of contract. The Tenderer is expected to cooperate with TNO on any further assessment of certificates and quality systems that may be required.

#### 5.2.1.5 Personnel

TNO considers it important that the Tenderer is able to deploy an adequate number of qualified personnel who possess the knowledge and experience required to perform the activities falling under the Contract in a satisfactory manner.

In terms of technical/professional competence and quality, the following requirements apply with regard to staffing:

- All persons who conduct work for or on behalf of TNO on TNO premises must be in possession of a valid Declaration of Good Behaviour (VOG).
- In some cases, a 'Declaration of No Objection' (VGB) is required. TNO reserves the right to require the Tenderer to present a VGB in respect of all persons who have access to certain TNO documents, files, databases, applications, (operating) systems, networks and designated restricted areas.

#### 5.2.2 Professional authority

By completing the Self-declaration (Appendix A01) the Tenderer declares that he is registered in the relevant professional register or trade register, in compliance with all requirements of the member state in which he is based.

At the request of TNO, the Tenderer must provide the following evidential documents within the period stated in Para. 7.1:

- For companies registered in the Netherlands: an original certified extract from the Chamber of Commerce Trade Register should be submitted. This must be no more than six months old at the time of submission. Companies registered in another country should provide a comparable document in accordance with national legislation and practice.
- If the Tenderer is a legal partnership, extracts should be submitted for all parties who are included on the Trade Register, together with a declaration signed by all partners establishing the right of representation with regard to the Tender.
- If the Tenderer is a Combination, an extract should be submitted for each member.
- If the Tenderer intends to call upon the resources of one or more Third Parties or subcontractors, extracts should be submitted in respect of each Third Party or subcontractor.

## 6. Evaluation against Award Criteria

TNO will evaluate and rank the Tenders based on the Award Criteria. In most cases, the primary consideration will be the Price-Quality Ratio.

### 6.1 Best Price-Quality Ratio

This criterion is divided into the following sub-award criteria and weighting factors. A numerical score is given in respect of Price (TP) and another for Quality (KW).

Award criteria	Max. points
Price (TP)	500
Quality (KW)	500
<b>Total</b>	<b>1000</b>

The Tender with the highest overall score is designated the '*Economically Most Advantageous Tender based on the Price-quality Ratio*' ('*Best PQR*'). The scores are rounded down to the nearest (1) decimal point. The overall score is the total of all non-rounded scores.

The Call for Tenders will state the maximum scores available for each (sub-) sub-award criterion.

In the event of a 'tie' – two Tenders with exactly the same overall score - the choice will fall to the Tender with the highest score for Quality.

#### 6.1.1 Sub-award criterium: Price (TP)

To allow an evaluation of the Tender by total price (the TP sub-award criterium), the Tenderer should complete the schedule of prices and costs in Appendix **A04**. If this schedule is found to include omissions or inaccuracies, the entire Tender will be declared invalid and excluded from further consideration.

The price is assessed according to the following elements.

To allow a fair comparison of total price (TP), Tenderers must use the schedule provided by TNO as an MS Excel worksheet (Appendix **A04**). On completion, the schedule must be printed out, signed by an authorized representative of the Tenderer organization. It should then be added to the Tender. The Tenderer must adhere to the prescribed format. All sections must be completed.

When evaluating the Tender against the sub-award criterium of price, TNO will check that the schedule of costs and prices (Appendix **A04**) has been completed in full. A price quotation on the basis of the schedule must meet the following minimum requirements:

- 1) Prices and costs must be stated in euros, excluding VAT, and accurate to two decimal places
- 2) Only the unit prices and rates which appear on the price schedule will be included in the evaluation. They will remain valid throughout the duration of the Contract.
- 3) Hourly rates are deemed to be 'all-in' amounts which include all costs associated with the service provision, including but not limited to travel and accommodation expenses, office costs and overheads. The Tenderer confirms that there will be no additional costs further to the performance of the Contract.
- 4) The schedule of prices must be completed in full. The Tenderer must use the MS Excel spreadsheet provided by TNO without any amendments or alterations.
- 5) The Tenderer is responsible for ensuring the accuracy of all figures and calculations.
- 6) All prices quoted by the Tenderer must be based on the contents of the Tender Documents and form a binding offer.
- 7) If the Award is confirmed, the prices and rates quoted in the Tender will apply at the start of the Agreement and for the first two (2) years of the Contract under that Agreement.

The lowest Total Price (TP) is assessed using the cumulative costs as defined by TNO and appearing on the schedule.

The Tender which offers the lowest Total Price (TP), corresponding to the lowest amount calculated for the total price, will be awarded the maximum of 500 points. Other Tenders will be scored *pro rata* in inverse proportion to price.

The calculation of the total number of points for Price is made using the following formula:

$$\text{Points} = 500 - \left\{ \frac{(I - LI)}{LI} \times 500 \right\}$$

Where:

**Points:** number of points scored for the criterion Price

**I:** Tender with "Price-TP"

**LI:** Tender with lowest "Price-TP"

If  $I \geq 2 \times LI$ , zero (0) points are awarded for the criterion Price TP.

### 6.1.2 Sub-award criterium: Quality (KW)

Chapter 8 of the Tender Instructions, the Programme of Requirements (PoR), sets out the Minimum Requirements which must be met during the performance of the Contract activities. These are hard requirements, as formulated by TNO.

In addition, the PoR includes a number of preferences with regard to the quality of the products/services concerned. These preferences have been identified by means of a process of consultation. Tenderers are asked to state whether and how they can meet these soft requirements. The ability to do so is likely to influence the assessment of quality.

For each preference, the Tenderer is asked to provide a description which addresses certain specific aspects.

The description should be clear and unambiguous, covering all the relevant points in order.

Each submission must be no more than the stated number of A4 pages (printed on one side only, with a line spacing of at least 1, minimum font size of 9 pt and margins of 2.5cm left, right, top and bottom).

TNO will base its assessment solely on the answers given, which must remain within the permitted length. Tenderers should avoid including cross-references to other documents in an attempt to evade the length restriction. Illustrations, diagrams, tables, organograms and sample reports are permitted. Any appendices do not form part of the answer and will not be included in this part of the evaluation procedure.

It is possible that two or more tenderers will achieve the same scores for a particular question.

The answers setting out the manner in which the which the Tenderer proposes to meet the stated requirements must be presented in accordance with the instructions in Chapter 8. The Tenderer may use their own A4 format for this purpose, or the template provided in Appendix A05.

The allocation of scores for Quality is shown in the table below.

Chapter 6 Sub-sub-award criteria: Quality	Max points
8.6.1 KW 1 Technical preferences	200
8.6.2 KW 2 Project approach	100
8.6.3 KW 3 Project team experience	100
8.6.4 KW 4 Maintenance and service plan	100
<b>Total</b>	<b>500</b>

The evaluation of the answers to questions relating to the preferences listed in the PoR will also rely on a system of numerical scores. These scores will reflect the degree to which the Tenderer meets each preference. The various sub-sub-criteria will be scored by the individual assessors in accordance with the table below. The overall score (derived from the averages of the individual scores) will then be calculated as described in Para. 3.1.

Rating	Score	Notes
No/poor answer	0%	No answer given/ a poor answer which does not address TNO's preferences
Inadequate answer	40%	Answer is not complete, unsatisfactory or otherwise not in keeping with TNO's preferences
Adequate answer	60%	The answer is sufficient, satisfactory, and sufficiently in line with the wishes of TNO;
Good answer	90%	Answer is good, the answer is well in line with TNO's wishes;
Very good answer	100%	The answer is excellent, the answer exceeds the wish (s) of TNO.

NB These are the only possible scores: there are no intermediate values.

When evaluating the degree to which the Tender addresses TNO's preferences, the assessors will consider:

- the degree to which the proposed solution is specific, realistic, feasible, effective, complete and consistent
- the degree to which the proposed solution is in keeping with the specific situation and circumstances, and the degree to which it address the (hard) requirements and preferences stated in the PoR.

The evaluation is based on the 'total picture' created by each answer.

## 6.2 Award of Contract

### *Announcement of Award Decision*

All Tenderers will be notified of the results of the evaluation and the Award Decision. Every effort will be made to ensure that this notification is given on the date stated in the Schedule in Para. 2.1.

The notification of the Award Decision will state which Tenderer has been selected as the Provisional Contractor and will give general reasons for the rejection of other Tenders. In the interests of confidentiality, TNO will not provide any information relating to the Tender price offered by the unsuccessful Tenderers.

### *Objections*

A Tenderer who does not agree with the Award Decision may lodge an objection. He must do so within twenty (20) calendar days of the date of the Award Decision and in the manner described in Para 2.4.

### *Confirmation of Award*

Once the period permitted for objections has elapsed, TNO will contact the winning Tenderer, as soon as possible, with a view to signing the Contract *unless* an appeal has been lodged with the judicial authorities. The Award is confirmed and is deemed to be final when TNO and the Tenderer enter into a formal Contract. Until the agreement is signed, TNO has no obligation, legal or otherwise, towards the Tenderer or any other party.

## 7. Evaluation of evidential documents and other documents

### 7.1 Submission of evidential documents and other documents

The Tenderer identified as the Provisional Contractor must submit all necessary documents and information in support of the statements made in the Self-declaration, as well as any other documents and/or information, within seven (7) calendar days of being requested to do so by TNO. (These documents in question are those supporting Appendices **B01** to **B.[.....]** and any others stipulated in the Tender Instructions and/or request for information.)

TNO will request the Provisional Contractor to submit the required evidential documents which will then be evaluated against the following criteria:

- Timely submission (within allotted period)
- Whether all requested documents have been provided and are complete. The absence of (part of) any document and/or other information may result in the disqualification of the Tender.
- Whether the documents support the Tenderer's eligibility, as claimed by means of the self-Declaration.

It is stressed that any Tenders which prove to include material errors or make claims which cannot be substantiated will be excluded from the Tender Procedure. Tenderers must therefore compile their Tenders with the utmost care and truthfulness.

### 7.2 Suspensory conditions

Where the Tenderer is unable to submit a copy of the required insurance policy or a certificate of insurance issued by a recognized insurance company within the period stated in the foregoing paragraph, but has nevertheless signed the Declaration of Intent in Appendix **B04**, and provided that the period permitted for objections has elapsed without any party notifying the intention to instigate legal action (or such action has been adjudicated in TNO's favour), TNO will notify the Tenderer of its intention to enter in a contract 'under suspensory conditions'. In practice, this means that the Contract may only be deemed final and valid if the Tenderer is able to submit a copy of the required insurance policy or a certificate of insurance issued by a recognized insurance company, showing that the Tenderer is insured as required in the Tender documents, within a period of seven (7) calendar days. The Contract will be finalized upon receipt of one or other of these documents.

If the Tenderer fails to submit either a copy of the insurance policy or a certificate of insurance issued by a recognized insurance company, the Contract will be deemed null and void. TNO reserves the right to approach the party whose Tender was ranked second in the Tender Procedure with a view to entering into a Contract.

## 8. Minimum requirements with regard to Contract performance (Programme of Requirements)

TNO will assess all Tenders against the Minimum Requirements which relate to the manner in which the Contract itself is to be performed. The Minimum Requirements imposed by TNO itself are listed in Chapter 8, the **Programme of Requirements** (PoR). The (technical) programme of requirements is available in the Appendix.

Statements using the word "SHALL" must be interpreted as a minimum requirement while statements using the word "will" must be interpreted as a fact or given (i.e. a battery limit interface will be available).

By submitting a Tender, the Tenderer indicates his unconditional acceptance of all Minimum Requirements, including the terms and conditions stated in the Draft Contract (Appendix **C02**).

Tenders which do not comply unconditionally with all minimum requirements are deemed invalid and will be excluded from further consideration.

As stated in Para. 6.1.2 of these Tender Instructions, this PoR contains, in addition to the minimum requirements, a number of requests, which are asked by question, regarding the quality of the requested service/delivery.

The Tenderer demonstrates the ability to meet the requirements and preferences by means of his answers to the various questions, which must be structured in accordance with the instructions given in Chapter 8. The Tenderer may use their own A4 format for this purpose, or the template provided in Appendix **A05**, provided the chosen format meets the requirements stated in Para. 6.1.2.

Activities further to the Contract must be performed in full accordance with the Tender Documents and the Tender submitted by the Tenderer. TNO wishes to stress that the requirements listed in the PoR form binding Contract conditions. Any amendments to the PoR made during the term of the Contract are to be implemented within the Contract. TNO will ensure that there is no material alteration to the Contract or the obligations it imposes on either party.

Chapter 1 of this document includes a description of current situation. It sets out the purpose and scope of the Contract and hence the purpose and scope of the PoR.

### 8.1 System Introduction

The aim of TNO is to demonstrate the viability of integrating green hydrogen supply to its conversion to valuable chemical molecules. In reaching this goal, a hydrogen supply system is required to be build as part of current tender.

The scope of the Hydrogen supply project is to engineer, manufacture, transport and install a H<sub>2</sub> supply system.

The H<sub>2</sub> supply system is envisioned to consist of the following elements:

1. Water conditioning (includes a flow/pressure control of the inlet flow) to ensure the right water quality to the electrolysis system
2. Power conditioning system
3. Electrolyser stack
4. Hydrogen conditioning (can include compression and/or drying)
5. Storage
6. Control system

The H<sub>2</sub> supply system will be placed at a TNO indicated location in Rotterdam in an industrial environment for the development of the Central Hub of the Field Lab Industrial Electrification (FLIE).

8.2 Functional description

Tap water is fed to the H<sub>2</sub> supply system at 2-4 barg (see Appendix C04). The water conditioning unit will ensure the right quality of water to the stack for the conversion of H<sub>2</sub>O into H<sub>2</sub> and O<sub>2</sub>. Next to tap water, power will be delivered at site. The specifications of the power connection are mentioned in the attached utilities list at site (Appendix C04). The Power conditioning will ensure the right power requirements to the conversion system and control system.

Oxygen is vented at safe location and waste water is preferably recycled or alternatively sent to drain at location. The hydrogen produced is compressed and dried if needed. The delivered pressure of the hydrogen stream is required to be 70 bara. H<sub>2</sub> will be stored in T-1 to buffer the supply to the future H<sub>2</sub> conversion unit. T-1 should have sufficient storage for at least 3 hrs at 20 Nm<sup>3</sup>/h of H<sub>2</sub> = 60 Nm<sup>3</sup>. From the storage unit, T-1, hydrogen will be fed to the conversion unit. T-1 is meant to illustrate storage and not necessary a storage tank. From the storage, a controlled flow of hydrogen will be fed into the conversion unit.

In the figure 1, the block diagram of the hydrogen supply unit is given. The tenderer may use this as a first suggestion for the design of the hydrogen supply system.

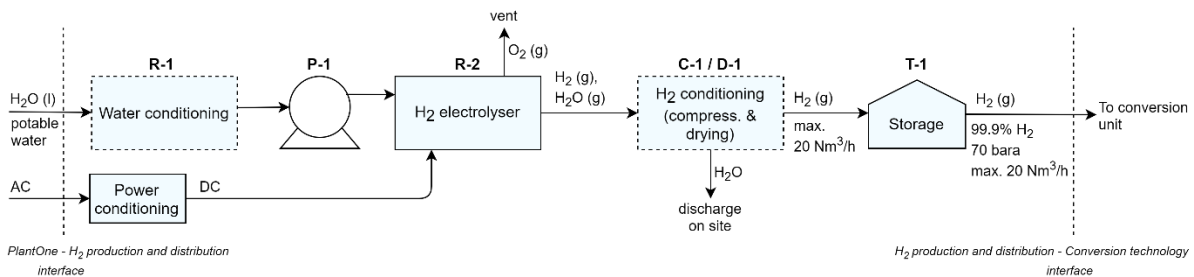


Figure 1 Block diagram of the Hydrogen supply unit

## 8.3 Functional requirements

Nr	Requirement
8.1.	The system SHALL be assembled on a skid or in a container. Multiple skids are also accepted (for example, one for the electrolyzer and one for storage).
8.2.	The system SHALL be easy to be transported by forklift or a crane. TNO may decide to move the system from one location to another. This needs to be facilitated by the design and construction of the frame/skid/container. The system SHALL allow transportation with minimum need of disconnecting piping, instruments and other components.
8.3.	The tenderer SHALL deliver and meet the technical functional requirements and scope for the H <sub>2</sub> supply unit , which includes : <ul style="list-style-type: none"> <li>• Water conditioning (includes a flow/pressure control)</li> <li>• Power conditioning</li> <li>• Electrolyser stack</li> <li>• Hydrogen conditioning (can include compression and/or drying)</li> <li>• Storage</li> <li>• Control system</li> </ul>
8.4.	<b>Water conditioning:</b> The unit SHALL be able to take in tap water (WHO standard) at pressure of 2 to 4 barg delivered from the site.
8.5.	<b>Water conditioning:</b> The water conditioning unit SHALL ensure the right water quality to be fed to the electrolysis stack.
8.6.	<b>Power conditioning:</b> The unit SHALL be able to take in AC power available, as specified (Appendix C04).
8.7.	<b>Electrolyser stack:</b> The electrolyser stack SHALL be a proven technology.
8.8.	<b>Electrolyser stack:</b> The electrolyser unit SHALL have a full capacity hydrogen product flow of min. 20 Nm <sup>3</sup> /h.
8.9.	<b>Electrolyser stack:</b> The electrolyser stack SHALL be able to handle intermittent electricity input.
8.10.	<b>Electrolyser stack:</b> The electrolyser stack SHALL provide stable operation at least at 25% to 100% of its nominal capacity.
8.11.	<b>H<sub>2</sub> conditioning, storage and delivery:</b> H <sub>2</sub> SHALL be delivered at a purity of at least 99.9% H <sub>2</sub> .
8.12.	<b>H<sub>2</sub> conditioning, storage and delivery:</b> H <sub>2</sub> SHALL be delivered at a pressure of 75±5 bara.
8.13.	<b>H<sub>2</sub> conditioning, storage and delivery:</b> H <sub>2</sub> SHALL be delivered at a reliable constant pressure supply.
8.14.	<b>H<sub>2</sub> conditioning, storage and delivery:</b> The H <sub>2</sub> supply flow rate SHALL be delivered with at least 5% accuracy on a momentary value of the measurement.

8.15.	<b>H<sub>2</sub> conditioning, storage and delivery:</b> The H <sub>2</sub> outlet from the storage SHALL be designed and constructed to allow 2 H <sub>2</sub> connections to two different future consumers (e.g. 2 conversion units running in parallel).
8.16.	<b>H<sub>2</sub> conditioning, storage and delivery:</b> The storage SHALL also act as a hydrogen buffer in order to ensure for at least 3 hours the delivery of hydrogen at nominal flowrate and pressure, without H <sub>2</sub> production by the electrolyser.
8.17.	The oxygen produced SHALL be safely released to the atmosphere via vent line (at a safe location).
8.18.	The H <sub>2</sub> supply system SHALL have adequate cooling/ventilation.

#### Control and automation related requirements

Nr	Requirement
8.19.	The H <sub>2</sub> supply system SHALL have its own autonomous power distribution system.
8.20.	The design of the H <sub>2</sub> supply system SHALL have its own independent and autonomous control system (and corresponding control panel (e.g. on local PC or laptop).
8.21.	The control system SHALL include the user interface - available on operator display with alarms properly described and clearly enunciated both visibly and audibly.
8.22.	The H <sub>2</sub> supply system SHALL be able to run 24 h/day unattended.
8.23.	The H <sub>2</sub> supply system SHALL be able to be operated on distance (from control room at < 50 m of installation, and via an internet controlled connection to TNO system).
8.24.	The signal output for transmitters SHALL be 4 – 20 mA.
8.25.	User data SHALL be stored for analysis purpose.

#### 8.4 General design requirements

Nr	Requirement
8.26.	The tenderer SHALL offer an integrated design solution for the H <sub>2</sub> supply system.
8.27.	The H <sub>2</sub> supply system SHALL comply with all Dutch laws, regulations, rules, standards and guidelines.
8.28.	The H <sub>2</sub> supply system SHALL be delivered with a CE conformity certificate and marking.
8.29.	The tenderer SHALL have quality control system according to ISO 9001.
8.30.	H <sub>2</sub> supply system SHALL be designed for a minimal mechanical lifetime of 10,000 operational hours.

#### ATEX zoning

Nr	Requirement
8.31.	A risk assessment SHALL be done during detailed design once the exact quantities of product are known and better understood and an area classification drawing developed to confirm ATEX requirements.
8.32.	An area classification drawing SHALL subsequently be made for the demonstration unit that indicates the zones as well as the gas group types and temperature classifications.
8.33.	After the risk assessment and area classification drawings all the equipment placed in the area shall comply with the respective ATEX requirements.

#### Safety, health and environmental requirements

Nr.	Requirement
8.34.	TNO will arrange a pre-start-up safety review with site representatives and representatives from the contractor before the demonstration unit is finally commissioned to determine whether: <ul style="list-style-type: none"> <li>• The risk assessments are complete, and all safety related documentation is signed and available;</li> <li>• All site acceptance testing activities are complete and check sheets are signed,</li> <li>• All engineering drawings are updated with any construction modifications and as built,</li> <li>• Production and maintenance teams have conducted their pre-start-up activities and their procedures are in place.</li> </ul>
8.35.	Risks of the personnel should be prevented at the source or should be reduced as much as possible to secure the safety and health of the personnel. In order to meet these requirements, the demonstration unit SHALL incorporate the following design issues such that an optimum operating environment for the personnel is ensured: <ul style="list-style-type: none"> <li>• Adequate provisions against noise at all working places. The noise limit for the facility is 80 dB. Additional noise protection SHALL therefore be required to reduce the level down to an acceptable level.</li> <li>• Additional adequate lighting SHALL be provided. This SHALL be achieved through the installation of dedicated lights within cabinets as well as mounted lights on the skids where specific activities would need it.</li> </ul>

#### Gas detection and ventilation

Nr	Requirement
8.36.	An early event gas detection system with a suitable visual and acoustic alarming SHALL be installed where toxic or flammable gases are used.

#### Vessels, pumps and piping

Nr	Requirement
8.37.	Double mechanical seals with barrier fluid SHALL be used for pumps servicing hazardous (flammable and toxic) fluids.
8.38.	All loading, unloading and sampling points SHALL be marked with a clear indication of the product within the pipe.
8.39.	Piping and tubing SHALL be suitably grounded against electrostatic build-up due to product flow.

**Manual isolating and pressure safety valves**

Nr	Requirement
8.40.	Pressure relief valves SHALL be sized, selected and installed according to ISO 4126 for vessels and piping. Pressure relief valves for tanks at atmospheric or low-pressure service SHALL be sized, selected and installed according to API 2000.
8.41.	Valves in hazardous service SHALL make use of bellow seals in addition to the standard packing material.
8.42.	Emergency isolations valves SHALL be provided with a means to close locally as well as remotely.

**Power feeder sizing, routing and distribution**

Nr	Requirement
8.43.	Cabling SHALL not run underground and be securely and neatly affixed with cable ties to a cable tray dedicated for power supply runs. Care should be taken to minimize cable lengths and should preferably not run through areas where the insulation can be susceptible to damage due to external heat or chemical spills.

**Factory Acceptance Test (FAT) related requirements**

Nr	Requirement
8.44.	All equipment and manufactured items SHALL be subjected to a joint inspection and functional testing between TNO and the Tenderer before release for shipment. The signed Factory Acceptance Test certificates SHALL be submitted to TNO.
8.45.	A quality plan that details the planned FAT dates SHALL be provided to TNO for approval before manufacturing commences. TNO will indicate whether a TNO or site representative is required to be present during the test.
8.46.	During the Factory Acceptance Testing (FAT) the following SHALL be verified: <ul style="list-style-type: none"> <li>• Adherence to the minimum requirements as stated within the Programme of Requirements (PoR);</li> <li>• Confirmation of function and usability of equipment and/or software as per the engineering design documentation and minimum requirements;</li> <li>• Manufacturing completion and check for damages;</li> <li>• Availability and correctness of test certificates and vendor documentation.</li> </ul>
8.47.	Any non-conformance identified during the test or inspection SHALL be jointly confirmed, documented within an official register and corrected within the agreed time-frame at no additional charge.

**Site Acceptance Test (SAT) related requirements**

Nr	Requirement
8.48.	The final site integration and functionally tests of the different systems SHALL be conducted by the Tenderer and witnessed by TNO and representatives from site.

8.49.	The Site Acceptance Test SHALL occur in person and subsequent to the delivery and final installation at the site. The signed test certificates SHALL be submitted to TNO.
8.50.	A quality plan that details the planned SAT dates SHALL be provided to TNO for approval before manufacturing commences. TNO will indicate whether a TNO or site representative is required to be present during the test.
8.51.	During the Site Acceptance Testing (SAT) the following SHALL be verified: <ul style="list-style-type: none"> <li>• Integration and final function testing of equipment and/or software as per the engineering design documentation and minimum requirements;</li> <li>• Construction completion and check for damages;</li> <li>• Availability and correctness of test certificates and vendor documentation.</li> </ul>

## 8.5 Project requirements

Nr	Requirement
8.52.	All documentation and correspondence SHALL be in English Language.
8.53.	SI units SHALL be used throughout the documentation, although pressure should be specified in bara and temperature in °C
8.54.	Drawings and numbering: <ul style="list-style-type: none"> <li>• All drawings SHALL be made available in .pdf, AutoCAD (2D) and STEP (3D) format</li> <li>• Numbering of items of the unit (piping, equipment, instrumentation etc.) SHALL be done according to ISO standards.</li> <li>• The drawings SHALL be under revision control and indicate the document originator, reviewer and approver.</li> <li>• The document SHALL also indicate its purpose i.e. for information, ready for construction or as-built.</li> </ul>
8.55.	A project plan SHALL be submitted to TNO for approval at the beginning of the project (Kick-Off meeting) with activities shown on a monthly basis with the following milestones clearly indicated in the project plan: <ul style="list-style-type: none"> <li>• Basic engineering package completed</li> <li>• HAZOP completed</li> <li>• Detailed design completed</li> <li>• Procurement, manufacturing and building completed – illustrating the long lead items</li> <li>• Factory acceptance test completed</li> <li>• System delivery date</li> <li>• Construction phase on site completed</li> <li>• Site acceptance test completed</li> <li>• Commissioning completed</li> </ul> The dependence between the activities SHALL be shown (i.e. start and end dates linked) and the critical path clearly indicated.
8.56.	The delivery period SHALL be stated in the proposal, mentioning a <b>maximum of 18</b> months from the moment the purchase order is received by the supplier.
8.57.	Once the purchase order was placed, the supplier SHALL schedule a bi-weekly progress meetings with TNO in which a summary report on the progress will be shared: <ul style="list-style-type: none"> <li>• Summary of the finished tasks in the last 2 weeks</li> <li>• Planned tasks for the next 2 weeks</li> </ul>

	<ul style="list-style-type: none"> <li>• Deviations from the plan and actions for repair</li> </ul>
8.58.	<p>After maximum 2 weeks from the moment the purchase order was placed, the supplier SHALL arrange a kick-off meeting in which the following agenda will be followed:</p> <ul style="list-style-type: none"> <li>• Project plan, including the main project milestones and the following project related activities, next to the technical milestones:</li> <li>• Risk assessment</li> <li>• Quality management plan</li> <li>• Project execution plan</li> <li>• Project deliverables and their dates</li> <li>• Roles and responsibilities – assigned personnel</li> </ul>
8.59.	<p>The design phase SHALL start in maximum 2 months once the order was placed.</p>
8.60.	<p>During the project execution, in case a scope change is necessary, the supplier SHALL send in written the scope change description which will be further discussed with TNO.</p>
8.61.	<p>The tenderer SHALL prepare a detailed execution schedule and SHALL agree with TNO to the following arrangements regarding the project execution:</p> <ul style="list-style-type: none"> <li>• An kick-off meeting with TNO is organised to agree on the execution plan of the contract.</li> <li>• Once the basic engineering is performed, the tenderer SHALL present to TNO the basic design documents for review and approval.</li> <li>• Part of the basic engineering package, the tenderer SHALL perform the HAZOP in which TNO representatives are invited together with Plant One representatives (note: Plant One is the location in which the system is envisioned to be installed) .</li> <li>• The tenderer will also participate in an integration HAZOP session with TNO and Plant One.</li> <li>• Once the detailed design is performed, the tenderer SHALL present to TNO the detailed design documents for review and approval (confidential information, such as sensitive information regarding the stack for example, is not required to be shared)</li> <li>• After completion of the construction, tenderer SHALL organise a visit at the tenderer site for a team inspection – system is built and complete. As built documentations will be sent to TNO.</li> <li>• Following construction, a factory acceptance test (FAT) SHALL be performed. The tenderer SHALL prepare the FAT plan and send it for review to TNO.</li> <li>• The system SHALL be delivered and installed at the address provided by TNO</li> <li>• After installation the Site Acceptance Test SHALL be performed.</li> </ul> <p>The system SHALL be commissioned/started by the tenderer under the supervision of TNO.</p>
8.62.	<p>Next to the hydrogen supply system, the tenderer SHALL supply the following documentation as part of deliverable list:</p> <p>Basic engineering package which includes :</p> <ul style="list-style-type: none"> <li>• Final Process flow diagrams (PFD)</li> <li>• Operating and control philosophy</li> <li>• Mass &amp; energy balance</li> <li>• Equipment summary sheets</li> <li>• Lay-out drawing</li> <li>• Piping and Instrumentation diagrams (P&amp;ID'S)</li> </ul> <p>Detailed design package which includes:</p> <ul style="list-style-type: none"> <li>• Updated Piping and instrumentation diagrams (P&amp;ID'S)</li> <li>• Equipment specification sheets</li> <li>• Process control design</li> <li>• Safety system design, incl. start-up and shut down procedures</li> <li>• Single line diagram</li> <li>• Instrument specification sheets and analysers specification</li> <li>• Final Lay-out drawing</li> <li>• HAZOP report</li> <li>• Operating manual</li> </ul>

	<ul style="list-style-type: none"><li>• Maintenance manual</li><li>• Civil design</li></ul> <p>Commissioning Plan Recommended spare part list including delivery time Signed test certificates Declaration of conformance certificates</p>
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## 8.6 Preferences

Nr	Preference
8.6.1.	<p><b>Technical preferences:</b></p> <ul style="list-style-type: none"> <li>• Describe An Electrolyser of PEM type and reasoning for choosing this.</li> <li>• When choosing a certain type of electrolyzer over PEM electrolyser, the tenderer should provide the justification (benefits and the requirements for the decision)</li> <li>• The H<sub>2</sub> supply system should have a turnup/down rate of a minimum of 2%-pt. per minute. (The H<sub>2</sub> will be supplied to a conversion unit which will control the flow and pressure of H<sub>2</sub> intake. One of the research question is to determine how the conversion unit ramps up its production. This means that there will be tests in which the capacity is ramped up. This translates to the preference on the H<sub>2</sub> supply to be able to deliver the H<sub>2</sub> at the same rate.)</li> </ul> <p><b>The tenderer will be graded based on the:</b></p> <p>Satisfaction of technical criteria (PEM type) and given motivation;  When PEM electrolyser is not chosen and justification for the alternative is well substantiated, the tenderer will receive a less good score based on the motivation;  Turnup/down rate of a minimum of 2%-pt. per minute). The higher rate is better</p> <p>The tenderer is invited to describe in maximum <u>two pages</u> the answer and motivation to the above mentioned technical preferences.  The entire answer should be concise, easily readable and not too extensive.</p> <p><b>Max points: 200</b></p>
8.6.2.	<p><b>Project approach:</b></p> <p>Within the project plan, which is made before the kick off meeting, several chapters are made.</p> <p>TNO is inviting the tenderer to provide (already) in the current tender an outline for the following parts of the project plan. The outline will contain information about how the tenderer will approach the specific parts of production of the unit</p> <p>TNO is asking an outline for the following subjects (specific parts) :</p> <ul style="list-style-type: none"> <li>• SAT</li> <li>• HAZOP</li> <li>• Control Strategy (thought process – vision on the control narratives of the complete system)</li> <li>• Unit integration (electrolyser, compression and storage)</li> </ul> <p>Tenderer is kindly asked to support the outline with the use of examples (incl. lessons learned) from previous and/or similar projects and support their explanation on (but not limited to) mentioned topics. Use information from the reference project. With that the tenderer is to illustrate a clear pathway for a successful project execution.</p> <p>The confidentiality limitations in providing the details will be respected.</p> <p><b>The tenderer will be graded based on the:</b></p> <ol style="list-style-type: none"> <li>1. Criteria specified in the chapter 6.1.2.</li> </ol> <p>The tenderer is invited to describe in maximum <u>ten pages</u> the answer to the above mentioned preference.  The entire answer should be concise, easily readable and not too extensive.</p> <p><b>Max points: 150</b></p>

8.6.3.	<p><b>Project team experience:</b></p> <p>TNO would like to see a balanced and focused team, with relevant experience for the project. The tenderer will provide the motivation and relevant information on the key personnel leading and executing the project, including:</p> <ul style="list-style-type: none"> <li>• Organigram of the project with description of the roles and choices that were made, % of involvement of each project member in the project and roles and responsibilities of team members;</li> <li>• Functional CV's (Appendix A06) of the key team members envisaged to work on the project. Use the provided template to do so, included a motivation from each team member and relevant working experience on the reference project(s);</li> </ul> <p>Add minimal 2 people with a project role like "Project manager" and "Specialist/Engineer".</p> <hr/> <p><b>The tenderer will be graded based on the:</b></p> <ol style="list-style-type: none"> <li>1. Criteria specified in the chapter 6.1.2.</li> <li>2. Experience of the core team</li> <li>3. Expertise of the core team</li> </ol> <p>The tenderer is invited to describe in maximum <u>five pages</u> the answer to the above mentioned preference (excluding the functional CV's).</p> <p>The entire answer should be concise, easily readable and not too extensive.</p> <p><b>Max points: 100</b></p>
8.6.4.	<p><b>Maintenance and service plan:</b></p> <p>The tenderer will present a plan that specifies maintenance &amp; service activities to be performed by the tenderer during the warranty period. This includes the approach to the maintenance request, i.e. the tenderer shall indicate the procedures (plan, action, solution), the response times and personnel that will be charged with carrying out the activities (including their experience and affiliation)</p> <p>It is also up to the tenderer to provide the information of the after warranty services, including description of the post-warranty support and response times</p> <hr/> <p><b>The tenderer will be graded based on the:</b></p> <ol style="list-style-type: none"> <li>1. Criteria specified in the chapter 6.1.2.</li> <li>2. Maintenance and support plan, approach and team</li> <li>3. After warranty support</li> </ol> <p>The tenderer is invited to describe in maximum <u>three pages</u> the answer to the above mentioned preference.</p> <p>The entire answer should be concise, easily readable and not too extensive.</p> <p><b>Max points: 50</b></p>

## 9. Appendices

All Appendices to the Tender Documents are published to accompany the Tender Instructions on [www.tenderned.nl](http://www.tenderned.nl).

The Appendices fall into three categories:

### A) To be submitted with Tender

- Appendix A01** Self-declaration by the Tenderer: European Single Tender Document (ESTD)
- *If the Tender is to be submitted by a Combination, a copy of Appendix A01 must be submitted by each member of the Combination.*
- Appendix A02** Self-declaration by all Third Parties on whose resources the Tenderer intends to rely: European Single Tender Document (ESTD)
- *Where necessary, a copy of this form should be provided for each Third Party on whose resources the Tenderer intends to rely.*
- Appendix A03** Reference projects
- Appendix A04** Schedule of Prices and Costs
- Appendix A05** Answering questions/notification of preferences
- Appendix A06** CV Template
- Appendix A07** Subcontractor information (if applicable)

### B) To be submitted on request (evidential documents)

- Appendix B01** Self-declaration with regard to subcontractor(s) to be deployed during performance of Contract
- *Where necessary, a copy of this form should be provided for each subcontractor*
- Appendix B02** Declaration re. use of Third Party financial and economic capacity
- Appendix B03** Declaration re. use of Third Party technical and professional competence
- Appendix B04** Declaration re. insurance policy/certificate of insurance

### C) Additional information:

- Appendix C01** Standard template for questions submitted by Tenderer
- Appendix C02** Draft Contract
- Appendix C03** TNO General Terms and Conditions of Procurement, June 2014
- Appendix C04** Plant One (Foreseen location for the system) Utilities List

#### Remarks

Some of the forms and templates listed above are made available as 'editable' MS Excel or MS Word files. This is to facilitate both their completion by the Tenderer and the subsequent evaluation by TNO, in accordance with Chapter 5. Some (sections of the) documents are secured in order to prevent unintentional or undesirable changes.

It is not permitted to make any alteration to the format or pre-completed content of any document. The format and text of all documents as included in the Tender Instructions and published on [www.tenderned.nl](http://www.tenderned.nl) will take precedence at all times.