

**TRANSNET NATIONAL PORTS AUTHORITY,
AN OPERATING DIVISION OF
TRANSNET SOC LTD**

**REQUEST FOR INFORMATION: INTERESTED PARTIES IN
RESPECT OF THE DEVELOPMENT, DESIGN,
CONSTRUCTION, FINANCING, OPERATION AND
MAINTENANCE OF HYDROGEN INITIATIVES
INCLUDING GREEN HYDROGEN, GREEN AMMONIA,
GREEN METHANOL AND/OR GREY HYDROGEN AT SEVEN
OF TNPA COMMERCIAL SEAPORTS.**

RFI: TNPA/2023/10/0021/46119/RFI

ISSUE DATE: 20 October 2023

CLOSING DATE: 31 January 2024

EXTENDED CLOSING DATE: 29 February 2024

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1 Disclaimer

While all reasonable care has been taken in preparing this Document, the information has been prepared by Transnet National Port Authority (TNPA) as an operating division of Transnet SOC Ltd ("Transnet") in good faith, based on information obtained from various sources. However, neither Transnet nor any of its advisors accept any liability or responsibility for the adequacy, accuracy or completeness of any of the information or opinions stated herein.

Save where expressly stipulated otherwise, no representation or warranty (whether express or implied) is hereby given by TNPA or any of its officers, employees, servants, agents, advisors, or any other person with respect to the information or opinions contained in this RFI.

TNPA reserves the right to amend, modify or withdraw this RFI in whole or in part, and/or to terminate or amend the plans for the development, design, construction, financing, operation and maintenance of a Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen export terminal facility at the TNPA commercial ports, at any time, without prior notice and without liability to compensate or reimburse any person pursuant to such amendment, modification, withdrawal or termination. The terms and conditions set out in this RFI are stipulated for the express benefit of TNPA. Save as expressly stated to the contrary, the terms and conditions herein set out may be waived at TNPA's sole discretion at any time.

TNPA reserves the right to adopt any proposal made by any person, juristic or otherwise, responding to this RFI, at any time and to include such proposal in any documents which may or may not be made available at any stage to any other persons responding to this RFI, without the obligation or liability to pay any compensation or reimbursement of any nature to any person pursuant to such adoption. This RFI is provided solely for the purpose set out herein and is not intended to form any part or basis of any investment decisions by any of the Respondents, their shareholders, members, or lenders.

Each person that accesses this RFI must make their own independent assessment of the information provided, taking such advice (whether professional or otherwise) as it deems necessary. No Respondent, its shareholders, members, contractors, suppliers or lenders shall have any claim against TNPA, its officers, employees, servants, agents or Transaction Advisors, under any circumstances whatsoever, arising out of any matter relating to this RFI of any nature whatsoever, including where such claim is based on any act or omission by TNPA, or any of its officers, employees, servants, agents or Transaction Advisors of any nature whatsoever, or where such claim is based on the content of, or any omission from, this RFI of any nature whatsoever.

2 Definitions and Interpretation

In this RFI, except as otherwise defined herein, the following terms shall have the following meanings:

- 2.1 **Capacity** - the capacity at any time and from time to time, expressed in Million tons per annum ("Mtpa") to generate and deliver green and/or grey hydrogen/ammonia/methanol Output;
- 2.2 **Commercial Operation Date** - the date after which all testing and commissioning of the Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen export terminal Facility has been completed;
- 2.3 **Document** - this explanation and request for information document for the Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen export terminal;
- 2.4 **Financial Close** - means the time when the Project Agreement and all financing and other agreements related to the Project have been executed and delivered and all conditions to the effectiveness of the Project Agreement and Project financing agreements have been satisfied;
- 2.5 **Project** – the proposed development, design, construction, financing, operation, and maintenance of Hydrogen Initiatives including Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen initiatives in Multiple Ports that may be granted by TNPA to the Preferred Bidder pursuant to an RFP that may be issued;
- 2.6 **Project Company** - the legal entity/entities that will be awarded the right, by the TNPA, to undertake the project at the eight (8) commercial TNPA ports and with whom, the TNPA will be concluding a Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen Facility use Agreement;
- 2.7 **Project Officer** - the person appointed by TNPA as the project officer for the purpose of the administration of the process contemplated in this Document;
- 2.8 **RFI Respondent** - any entity or consortium that submits a RFI Response in response to this Document;

- 2.9 **RFI** – this Request for Information document which aims to solicit information from the market relating to the planned project in relation to the Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen initiatives in the Ports;
- 2.10 **RFI Response** - the submission made by an entity or organization in response to this Document, together with all necessary supporting documentation and the letter referred to in paragraph 6 of this RFI;
- 2.11 **RFP** - the request for proposals which is contemplated to be issued for the service providers that will develop, design, construct, finance, operate and maintain Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen initiatives in various Ports; and
- 2.12 **Transnet National Port Authority (TNPA)** - an operating division of Transnet responsible for the safe, effective, and efficient economic functioning of the national port system, which it manages in a landlord capacity and who provides port infrastructure and marine services at the eight commercial seaports in South Africa in accordance with the provisions of the National Ports Act.

3 Background

3.1 Transnet National Ports Authority – TNPA

- 3.1.1 Transnet National Port Authority (TNPA) as an operating division of TransnetSOC Ltd ("Transnet"), (registration number 1990/000900/30) established through the National Ports Act, No. 12 of 2005 ("the Ports Act") and provides a regulatory service in terms of its proclamation as defined in the National Ports Act;
- 3.1.2 Section 11 (1) of the National Ports Act No 12 of 2005 (the Ports Act) states: The main function of the Authority is to own, manage, control and administer ports to ensure their efficient and economic functioning, and in doing so the Authority must:
- a) Plan, provide, maintain, and improve port infrastructure;
 - b) Promote the use, improvement and development of ports and control land use within the ports, having the power to lease port land under conditions that it determines;
 - c) Promote greater representation, in particular, to increase participation in port operations of historically disadvantaged people;
 - d) Provide or arrange marine-related services, i.e., pilotage services, tug assistance, berthing services, dredging and hydrographic services;
 - e) Ensure that adequate, affordable, and efficient port services and facilities are provided, including regulatory oversight of all port activities; and
 - f) Provide aids to assist the navigation of vessels within port limits and along the coast.
- 3.1.3 At an operational level, TNPA occupies a strategic position in the country's transport logistics chain, managing South Africa's eight commercial seaports, namely Cape Town, Richards Bay, East London, Mossel Bay, Ngqura, Port Elizabeth, Durban, and Saldanha Bay;

- 3.1.4 The ports under the control of the TNPA span the South African coastline, which measures approximately 2 800 km. TNPA's asset base consists of port land, basic port infrastructure and marine fleet at the eight commercial ports. TNPA manages port land of approximately 43,4 million m² and about 750 leases across the port system;
- 3.1.5 Operating within the port industry, TNPA provides its service to port users, namely terminal operators, shipping lines, shipping agents, cargo owners and the clearing and forwarding industry. TNPA also carries a distinctive feature of being self-sustaining, unlike most other landlord port authorities that rely on national or provincial governments for financial support;
- 3.1.6 The climate change challenge has created new opportunities for South Africa can seize to its advantage, with TNPA being a critical enabler for the realization of the green hydrogen economy (World Bank Study, 2023). This was based on green fuel bunkering and green hydrogen exports (as green Ammonia and Green Methanol) that will be evacuated via TNPA Ports.
- 3.1.7 Additionally, TNPA strategically considers opportunities for Grey Hydrogen (made from Natural Gas, cleaner fossil fuel) initiatives and this is due the exploration activities of natural gas and opportunities in Shale Gas in South Africa.
- 3.1.8 It is in this context that TNPA has decided to seek to solicit information from the market from interested parties for the development of a Green Hydrogen, Green Ammonia, Green Methanol and/ or Grey Hydrogen export terminal, storage facilities and green hydrogen component manufacturing facilities as key drive is to create enabling environment for green initiatives through TNPA port system, depicted below in figure 1.

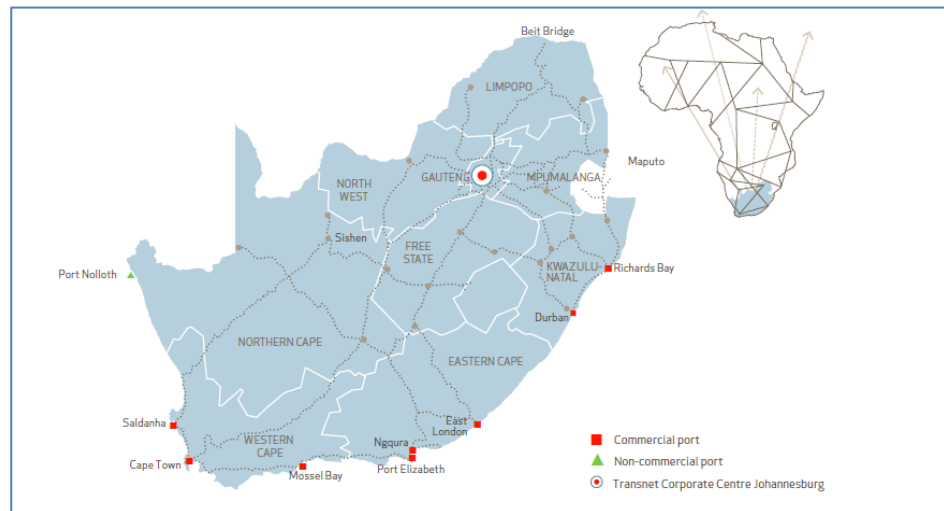


Figure 1: TNPA Commercial Ports

4 Overview

4.1 Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen

- 4.1.1 South Africa faces the challenge of securing clean, affordable and sustainable energy to power its economy and transition into a net-zero society. The country's overarching National Development Plan (NDP) 2030 advocates for increased investment in an energy sector that is both economically inclusive and environmentally sustainable (source: Department of Science and Innovation (DSI), 2021);
- 4.1.2 The development of the hydrogen industry for both export and the domestic demand landscape in SA will be critical to decarbonisation of our economy and to mitigate risk of declining fossil fuels usage;
- 4.1.3 TNPA acknowledges the positive interest from both local and international companies for partnership in the development of Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen production facilities in South Africa. The main focus area for TNPA would be to enable the delivery of the necessary Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen port infrastructure.
- 4.1.4 Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen industries remain strategic growth opportunities and are necessary for South Africa's environmental and economic growth. TNPA seeks to explore

the potential for the development of a Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen export terminal facility and associated common user infrastructure to support cleaner fuels for both local and export markets within the port boundaries;

- 4.1.5 The growing reality for countries and industries to achieve net zero has introduced a shift from the reliance on fossil fuels to green/clean energy alternatives;
- 4.1.6 In South Africa currently, hydrogen is predominately produced via steam methane reforming (Grey Hydrogen), which contributes to the overall 2% of global grey hydrogen output;
- 4.1.7 Long-term, domestically diverse and sustainable hydrogen production pathways, such as direct water splitting and hydrogen from biomass, solar, wind and other renewable energies are promising and have the potential to increase our energy security, resiliency, and economic opportunities while also offering environmental benefits (source: USDRIVE, Nov 2017);
- 4.1.8 The infrastructure needed to export hydrogen is similar to existing natural gas facilities. However, modifications may be required to accommodate high pressures or other parameters, depending on the product and transportation method that is deemed cost effective. South Africa can leverage on its existing liquid bulk port infrastructure to support exports of hydrogen, ensuring operational sustainability in the wake of the declining global demand for alternatives such as coal (source: DSI,2021);
- 4.1.9 Based on information from Corporate Value Associates (CVA), South Africa has the potential to produce 17.5 million tons of green hydrogen by 2035, at competitive cost to meet local demand, grow the domestic economy, support local communities, and for export to major international off-takers as hydrogen reshapes global energy integration. See figure 2 below of Africa's Hydrogen potential;

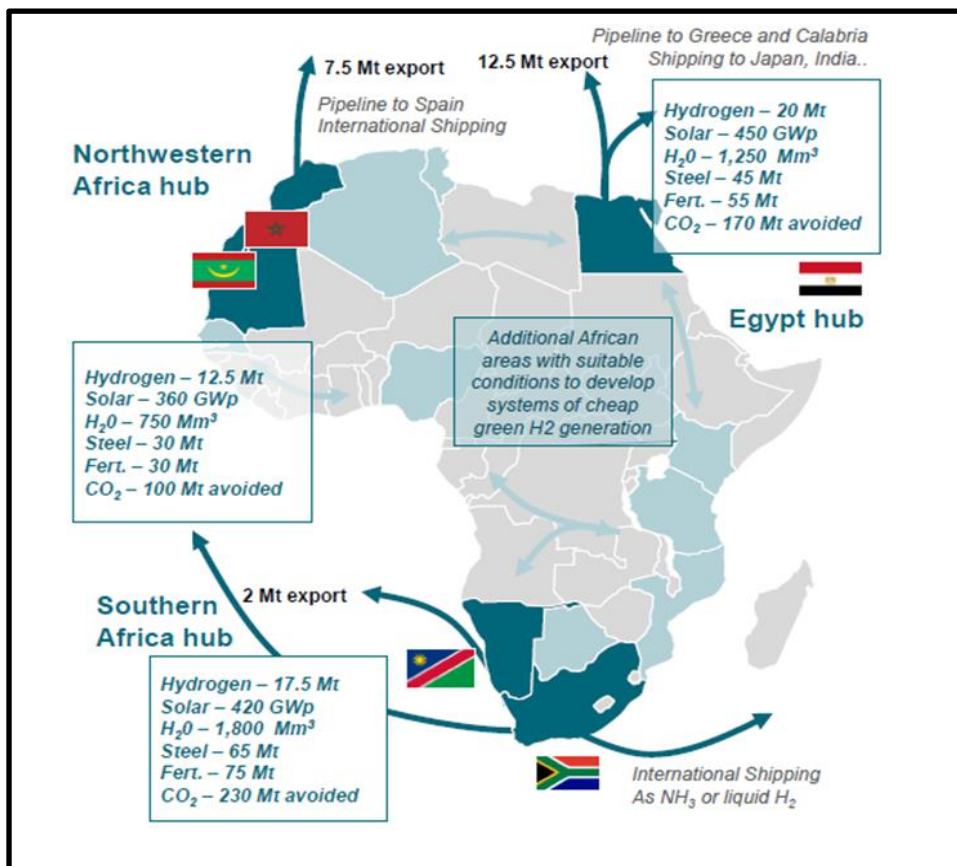


Figure 2: Africa Hydrogen potential

4.1.10 South Africa through research from institutions such as CSIR, DSI and Infrastructure South Africa have identified key potential hydrogen hubs namely the ports of Richards Bay, Ngqura, Saldanha and Boegoebaai. The Special Economic Zones (SEZs) within South Africa are geographically designated areas set aside for specifically targeted economic activities to promote national economic growth and exports by using support measures to attract foreign and domestic investments and technology and they are critical to enable the green economy. The export market near ports developments, will position South Africa to capture between 7 - 12 percent of international Green Hydrogen market (mostly shipped as ammonia); and

4.1.11 Other green hydrogen and/or green ammonia market opportunities exist in:

- Aviation synthetic fuels potions; and
- Shipping where there is an opportunity to decarbonise ports fleets and sustainable bunker fuels in ports.

4.2 Grey Hydrogen

- 4.2.1 South Africa has natural gas and oil exploration opportunities from onshore and offshore fields. The industries in South Africa most likely to benefit from the natural gas include gas-to-power industry, gas-to-liquid refineries and the development of grey hydrogen and/or ammonia production; and
- 4.2.2 South Africa has a well established know-how of gas-to-liquids synthesis technology that makes it convenient for repurposing to produce grey hydrogen and derived products.

5 Request for information

- 5.1 The objectives of this RFI are to establish market appetite from interested parties for the development of a Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen export terminal, storage facilities and green hydrogen component manufacturing facilities.
- 5.2 Assess the market technologies, pipe-line projects, and delivery schedules for green/grey hydrogen/ammonia/Methanol facilities/ green hydrogen components manufacturing facilities at all seven commercial ports as included in this RFI. This will prepare TNPA for starting the Project and acquiring the necessary information to carry it out;
- 5.3 TNPA intends, through this RFI to:
 - 5.3.1 Better understand the Respondents' hydrogen projects;
 - 5.3.2 Gauge market appetite for the project;
 - 5.3.3 Formulate the scope and extent of the Project;
 - 5.3.4 Structure the RFP to ensure that it responds to market demand;
 - 5.3.5 Determine the appropriate risk allocation between the TNPA and the Service Provider in undertaking the Project; and
 - 5.3.6 Understand requirements and market demand for TNPA to establish common-user infrastructure in addition to the establishment of terminal facilities.
- 5.4 TNPA requests that all entities or companies that may wish to submit bids, in response to a possible RFP in future, with respect to the Project, respond to this RFI in the manner and form herein specified. The submission of an RFI response is, not and will not be a compulsory requirement for responding to the RFP in

future;

5.5 Respondents are to note the following:

- 5.5.1 TNPA does not prescribe the suggested solution and instead seeks information that will be useful if the project moves on to the RFP stage;
- 5.5.2 Possible Green Hydrogen, Green Ammonia, Green Methanol, Green Hydrogen component manufacturing facilities and/or Grey Hydrogen storage facility locations for each port are to be provided as an “Annexure A” to this RFI, these options will be confirmed post the requisite approvals from relevant governing institutions. In proposing a possible solution, Respondents should propose options for site locations in addition to the options provided by TNPA, if they might have different propositions. The final options shall be developed, investigated, and finalised for the subsequent RFP phase;
- 5.5.3 Respondents should indicate any requirements for the project land which would include aspects such as exclusion zones, laydown areas, servitudes, etc., that they foresee in developing the possible solution proposed above;
- 5.5.4 Respondents are requested to submit information in their responses to this RFI on how best the TNPA could package the Project in the event that it progresses to the RFP stage of the Project;
- 5.5.5 Consideration will also be given to projects that support the hydrogen transition that is not produced solely using renewable energy – these being grey hydrogen (produced using fossil fuels) or blue hydrogen (produced using fossil fuels plus carbon capture technology; which meets a low-carbon threshold but is generated using non-renewable energy sources). For grey hydrogen, a transition pathway with tangible milestones towards green hydrogen within reasonable years is demonstrated; and
- 5.5.6 Respondents are requested to provide any other information in respect of their Project that they deem necessary to bring to TNPA’s attention.

6 Information to be provided by the respondent in its RFI response

Respondents are required to submit the following information in the RFI Response, which information should include the information requested below together with supporting documentation in respect thereof. Apart from the requirements below, respondents are encouraged to submit any additional information that may assist TNPA

in its planning to capacitate the port system for the impending green hydrogen economy.

6.1 Respondent's Company / Consortium profile

- 6.1.1 The name of the Respondent, and its full registration details;
- 6.1.2 The name and contact details of the person appointed by the Respondent as its representative in the event that the Project Officer wishes to engage with the Respondent on any aspect of the RFI Responses; and
- 6.1.3 A comprehensive company profile detailing the Respondent's previous experience and track record in undertaking the development of a hydrogen and/or ammonia facility of the nature outlined in this RFI which is to include the CVs of the Respondent's executive team members.

6.2 The proposed green hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen Terminal Design

- 6.2.1 It is Functional Engineering analysis and Design methodology:

The Respondents is requested to submit a proposal detailing the planned methodology for the analysis and functional design of the plant and the hydraulic modelling of the hydrogen network as a result. The methodology must include an outline of the data required in order to do the hydraulic model and how it will be obtained;

- 6.2.2 Possible Locations:

The Respondents shall identify and submit which ports will be best suitable for the project, in addition to the proposed site production locations. The following considerations must be taken into account for the proposed site locations:

- a) The size and geometry of the sites should accommodate the storage facilities and accompanying civil, electrical, piping interconnections and other works;
- b) Access and interconnections to the hydrogen supply networks;
- c) Access and interconnections to the power supply grid;

- d) Geological and topographical suitability for the construction and erection of the various structures in a cost-effective manner; and
- e) Adherence to port's environmental regulations, law requirements and restrictions.

6.2.3 Pre-Feasibility Stage Programme:

The Respondent shall submit an activity programme, in the form of a Gantt chart, which will reflect the various activities stemming from this scope of work with the duration for each activity;

- 6.2.4 What is the Respondent's projected capital investment required to undertake the Project? It should be noted that TNPA under its mandate as per the Ports Act, will invest and own common-user infrastructure (includes the berth, piping, manufacturing of green hydrogen components, associated marine infrastructure, loading arms, etc.) within the port.

- 6.2.5 Indicate the period expected to reach maximum Green Hydrogen, Green Ammonia, Green Methanol and/or Grey Hydrogen yield, and the build-up volumes to that maximum yield; and

- 6.2.6 Provide details on an indicative tariff. Detail to also be provided on the capacity charges as well as any other components of the tariff with the necessary detailed motivations for the tariff breakdown.

6.3 Information relevant to the Project Status

- 6.3.1 Provide high level project lifecycle phases (concept, design complete, construction commenced, construction complete);

- 6.3.2 Provide details of preferred exports sites Green Hydrogen, Green Ammonia, Green Methanol, Green Hydrogen component manufacturing facility and/or Grey Hydrogen equipment;

- 6.3.3 What are the projected timelines to operationalize the Green Hydrogen, Green Ammonia, Green Methanol, Green Hydrogen component manufacturing facility and/or Grey Hydrogen terminal?

6.3.4 What, if any, is the anticipated use of existing infrastructure? and

6.3.5 What, if any, are the technical interface information and constraints?

6.4 Commercial Transaction Structure

6.4.1 What is the proposed commercial structure, having regard to the expected return on the investment in the port infrastructure?

6.4.2 What is the expected tenure of the Project to obtain the expected return on investment in relation to the project capital expenditure for each port?

6.4.3 How does this Commercial structure integrate with the intended operating and business model? Please elaborate and unpack your envisaged operating and business model explaining the rationale, therefore; and

6.4.4 The Respondent is required to provide a general background on how the Respondent intends to finance the Project.

6.5 Alignment with Government's Strategic Objectives

6.5.1 What will be the Respondent's project contribution to new jobs, skills development, black owned partnership and development of SMMEs?

6.5.2 How will the Respondent ensure that the Project remains environmentally sustainable?

6.6 Compliance

6.6.1 Which are the most critical regulatory approvals required to ensure the success of the Project? Are there any regulatory approvals already obtained?

6.6.2 How will the Respondent obtain and retain all relevant and necessary regulatory requirements to undertake the Project? What would be the timelines?

6.6.3 Environmental Analysis and Assessment Methodology:

It is recommended that the Respondent provides proposed site locations that are in the least environmentally sensitive areas (e.g., brownfield areas), with existing environmental approvals and/or will require the lowest amount of environmental legislative requirements.

For the proposed location in each port, the Respondent shall submit the following:

- a) The environmental approvals, with reference to the relevant Acts, that will be required for each proposed port location;
- b) An outline of the required environmental assessments as a function of the scope, functional design and location of the site, e.g. a Marine Impact Assessment (MIA);
- c) An outline of any additional potential environmental hindrances to the project implementation with solutions to overcome; and
- d) Identification of any possible environmental risks and impacts with mitigation plans to ensure no impact occurs.

The environmental studies shall be finalised once the scope, design and final site location are selected in each port and the relevant legislated environmental approval requirements and applications are lodged with the respective competent authority.

6.7 Information Relevant to the Timing of the Project

6.7.1 How much time will a bidder require?

- a) to prepare a bid response, taking into account any due diligence that a Bidder will need to carry out; and
- b) to finalise all the requirements, to achieve financial close.

- 6.7.2 What is the timing of the Commercial Operation Date from Financial Close? Respondent to provide the necessary supporting documentation in support of such assertion;
- 6.7.3 What are the key issues relevant to the timing of the Respondents' submission for this Project that the Respondent would like to bring to TNPA's attention; and
- 6.7.4 What is the anticipated critical path between Financial Close and the Commercial Operation Date for the Project?

6.8 Information related to Green Hydrogen

- 6.8.1 The respondents are to complete the quantitative questionnaire that is provided in "Annexure B" and must form part of their submission.

7 Format and Submission of RFI Responses

7.1 Submission of RFI Responses

- 7.1.1 The RFI Responses must be submitted to TNPA by no later than 29 February 2024 at 16h00;
- 7.1.2 RFI Responses reaching TNPA later than the date and time specified above, will not be considered by TNPA;
- 7.1.3 All costs incurred by a Respondent in connection with this RFI and the preparation of its responses hereto shall be borne by the Respondent;
- 7.1.4 The Respondent will not have to pay any monies in order to submit an RFI Response; and
- 7.1.5 The Respondent is encouraged to submit any additional information that, in its view, would assist TNPA in the further development of the Project and the introduction of Green Hydrogen, Green Ammonia, Green Methanol, Green Hydrogen component manufacturing facility and/or Grey Hydrogen terminal facility.

7.2 Copies of the RFI Response

7.2.1 Each RFI Response is required to be delivered to TNPA by way of 1 (one) soft copy of the entire RFI Response, and the documents contained therein must be:

- a) Emailed to: HYDROGENRFI@transnet.net;
- b) In Microsoft Word format, version 2007 or later, save where the document cannot be accessed by Microsoft Word, in which event it must be provided in a PDF format, or Microsoft Excel format, version 2007 or later; and
- c) Properly indexed, readable and capable of being opened.

7.3 Format of RFI Responses

7.3.1 The Respondent is requested to complete the RFI Response and provide all the information required in terms of this RFI and address every item;

7.3.2 All pages should be numbered consecutively from beginning to end and there should be an index to the entire RFI Response; and

7.3.3 The RFI Response can be contained in more than one document and with annexures as the Respondent may consider appropriate to provide the information requested. All documents comprising the RFI Response must be visible from the index to the RFI.

7.4 Language of the RFI

7.4.1 The RFI Response and all documents forming part of it must be in English;

7.4.2 Any printed literature submitted with the RFI Response may be in another language as long as it is accompanied by an English translation (made by accredited translator) of the entire document;

7.4.3 For the purpose of interpretation of the RFI Response, TNPA will rely on the English translation provided; and

7.4.4 All correspondence and any other documentation and oral communication exchanged between the Respondents and TNPA shall be in English.

7.5 Signing of the RFI Response

7.5.1 The Respondent is requested to provide a signed submission letter with its RFI Response.

7.6 Further Information

7.6.1 TNPA reserves the right to seek additional information from the Respondent regarding its RFI Response, as it may, in its sole discretion, determine, whether such information has been requested under this RFI or otherwise, and may request the Respondent to present supplementary information, in respect of its RFI Response; and

7.6.2 The Respondents may, following the submission of an RFI Response, be requested to engage with TNPA and/or other relevant government stakeholders to discuss matters relevant to its RFI Response. Any meetings will take place via MS Teams unless otherwise arranged.

8 Contact with the Project Officer

8.1 The Respondent must give the name and contact details of the person whom it appoints to undertake all contact with the Project Officer in its RFI Response, as provided for above (Information to be provided by Respondents in their RFI Responses);

8.2 After the submission of its RFI Response, the Respondent may only communicate with TNPA through such person and TNPA shall be entitled, at its sole discretion, to disregard any communication from the Respondent, that does not come from such contact person, and that does not go directly to the Project Officer. Once the Respondent has been issued with a unique identification number this is to be used in all communications with TNPA; and

8.3 Where engagement is required with the Respondent as highlighted above, other representatives of TNPA and the Respondent will be requested to be available for such engagement.

9 Formal Briefing

- 9.1 A non-compulsory briefing session meeting will be conducted via Microsoft Teams on Friday 10 November 2023 @ 10h00. Interested parties can join the briefing session by using this Teams link [Click here to join the meeting](#); and
- 9.2 Interested parties who wish to submit an RFI Response and who did not participate in the non-compulsory information sharing session will not be excluded from submitting an RFI Response.

10 Requests and Clarifications

- 10.1 The Respondent may request clarification on any item contained in this RFI by not later than 31 January 2024 at 12h00;
- 10.2 All enquiries, queries, and requests for clarification in respect of this RFI must be in writing and addressed to the Project Officer and emailed to HYDROGENRFI@transnet.net; and
- 10.3 TNPA will endeavour to respond to all reasonable written queries and requests for clarification raised by any Respondent.

11 Confidentiality

- 11.1 The information contained in this RFI is confidential and proprietary to TNPA. In accepting this RFI, "suppliers", "service providers" and/or "Agents" agree to the following conditions, under the applicable legislation:
 - 11.1.1 Each party recognises and agrees that the Confidential Information has been compiled, created, and maintained by special effort and expense of the other party;
 - 11.1.2 Each party recognises and agrees that disclosing or disseminating Confidential Information to a third party will have a materially adverse effect on the other party and agrees not to disclose or disseminate the Confidential Information to any third party. Except as necessary to perform its obligations hereunder, each party shall not use, reproduce,

or draw upon the Confidential Information or circulate it within its own organisation;

11.1.3 Each party shall provide notice to the other party of any demand made upon it under lawful process to disclose or provide the other party's Confidential Information. Such party agrees to co-operate with the other party if it elects to seek reasonable protective arrangements or oppose such disclosure, at the expense of the party that is seeking the protective arrangements or opposing the disclosure;

11.1.4 Any Confidential Information disclosed pursuant to such lawful process shall continue to be Confidential Information, the access to such Confidential Information shall be limited to those persons:

- a) only with a need to review such information for the purposes for which the disclosure was required; and
- b) who agree in writing to keep the Confidential Information confidential.

12 Offering of Commission or Gratuity

12.1 If a Respondent, or any person employed by him, is found to have either directly or indirectly offered, promised or given to any person in the employ of TNPA, any commission, gratuity, gift or other consideration, TNPA shall have the right and without prejudice to any other legal remedy which it may have in regard to any loss or additional cost or expenses, to disqualify the RFI Respondent from further participation in this process and any other subsequent processes in this regard; and

12.2 In such an event, the Respondent will be responsible for all and any loss that TNPA may suffer as a result thereof. In addition, TNPA reserves the right to exclude such a Respondent from future business with TNPA.

Annexures A: Potential Sites

The indicative sites for the mentioned ports are provided below. The sites will be firmed up after obtaining the market demand and performing a detailed analysis to develop a sound solution that will respond to the market demand.

1) Port of Saldanha: Indicative Site

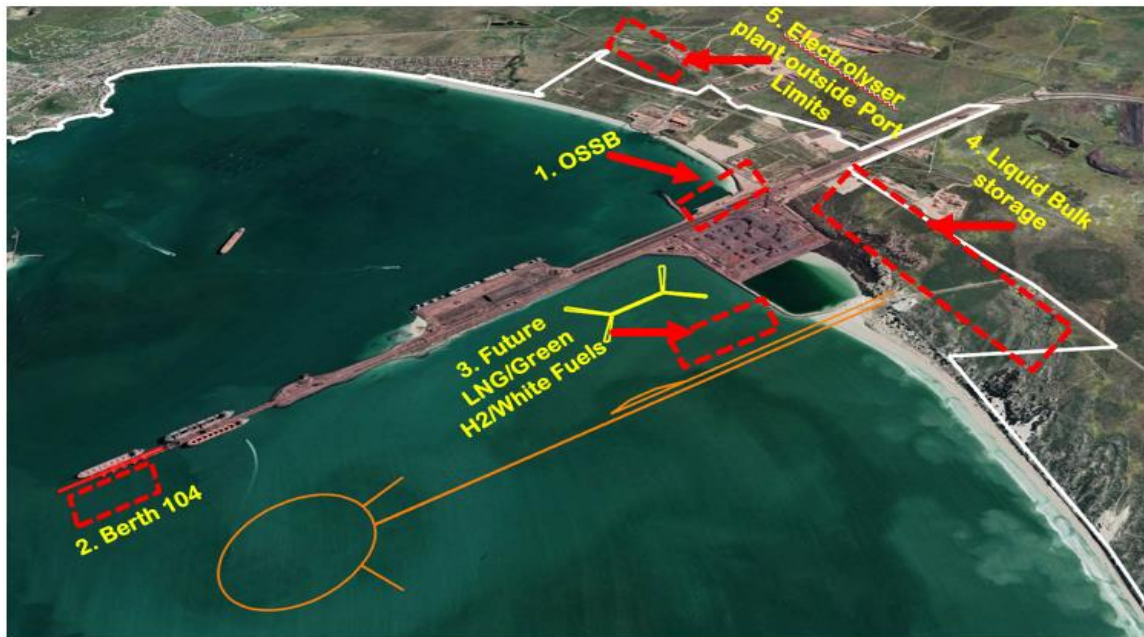


Figure 1: Port of Saldanha Hydrogen potential sites for Hydrogen initiatives

2) Port of Cape Town: Indicative Site



Figure 2: Port of Cape Town Liquid bulk precinct

3) Port of East London: Indicative Site

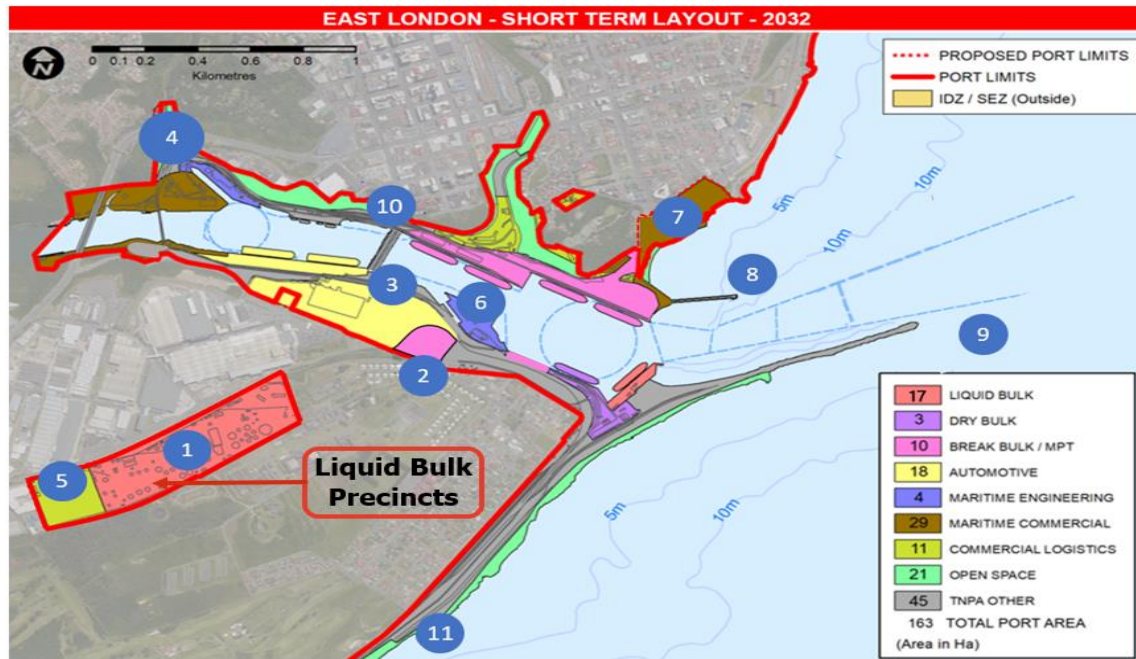


Figure 3: Port of East London Liquid bulk precinct

4) Port Of Ngqura: Indicative Site

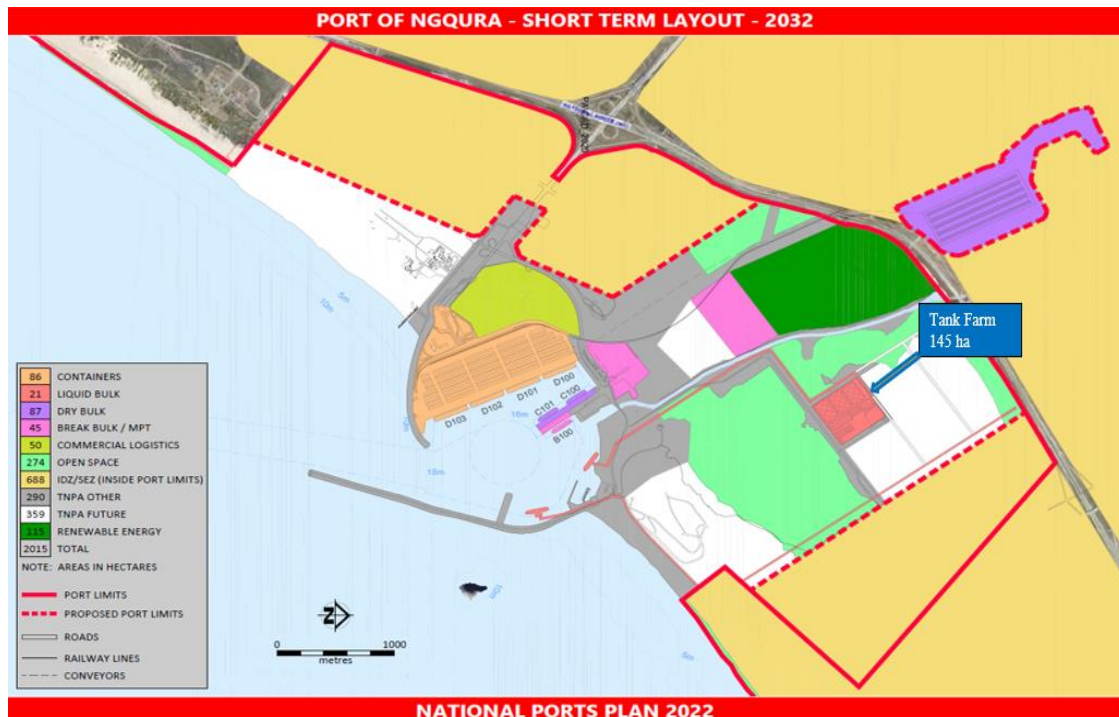


Figure 4: Port of Ngqura Tank Farm

5) Port Of Durban: Indicative Site

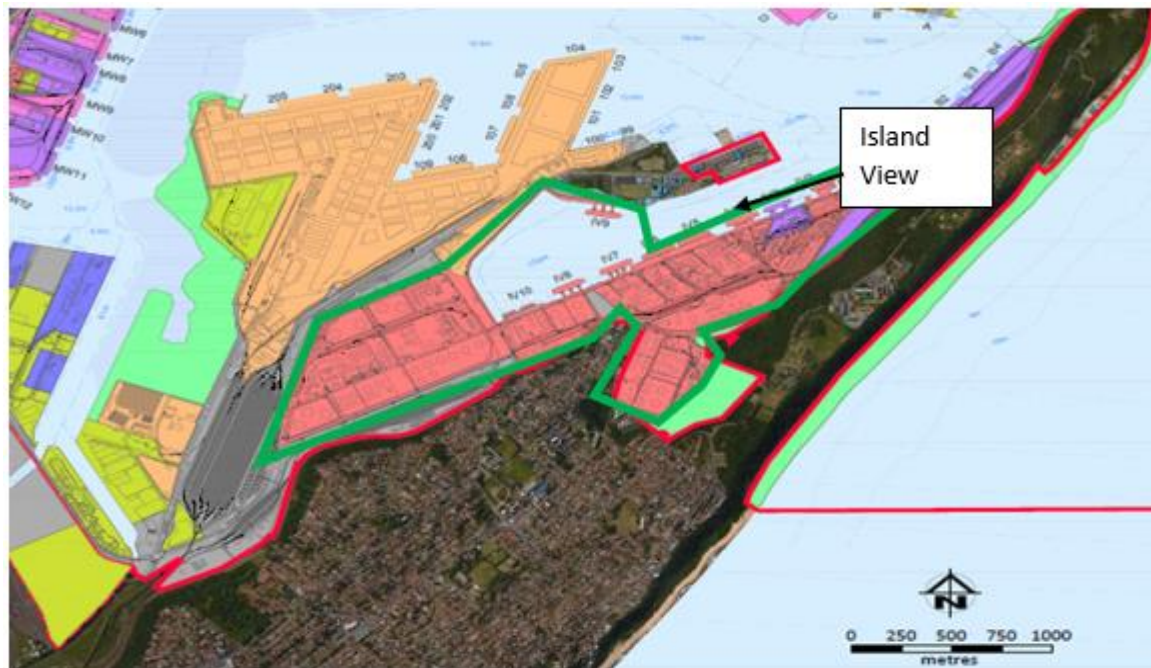


Figure 5: Port of Durban Island View

6) Port Of Mossel Bay: Indicative Site

The Port of Mossel Bay handles liquid bulk via the existing Single Point Mooring (SPM) and Conventional Buoy Mooring (CBM) facilities. Due to land constraints and a lack of access to berth infrastructure inside the port, future plans for the Port of Mossel Bay include developing a deep-water SPM. At this stage, any interest in potential grey, blue, or green hydrogen and/or ammonia development will have to be produced, handled, and stored outside the port's limits.

Annexures B: TNPA Green Hydrogen economy data collection questionnaire

This questionnaire designed to provide Transnet National Ports Authority (TNPA) with a general overview of the green hydrogen market in South Africa.

1. Type of Company (Please indicate by making an **X** in the relevant column)

1.1	Private: PTY, CC, etc	
1.2	State Owned: SOC, SOE, Government Department, etc	

2. Where is your facilities based: City/Town.....

3. Where is your facilities based: Province.....

4. Where is your facilities based: Country.....

5. Are you a user or producer of Green Hydrogen & its derivates? (Please indicate by making an **X** in the relevant column)

5.1	User	
5.2	Producers	

If you are a **User of green hydrogen**, please complete only **question 6 and question 7** and if you are producer kindly complete **question 8 to question 16**.

User of Green Hydrogen & its Derivatives (Ammonia, Methanol, etc)

As a **user of Green Hydrogen & its derivatives** (ammonia, methanol, LOHC, etc.) could you kindly provide us with some insight into your planned usage and projected volumes you intend to use per product by answering questions **question 6 and question 7** below.

6. If you are Users, kindly indicate what you would be using the Green Hydrogen & its derivatives for (Please indicate by making an **X** in the relevant column)

6.1	Green Fertilizer	
6.2	Green Steel	
6.3	Green Cement	
6.4	Green Plastic Production	
6.5	Green Synthetic Fuels for Aviation	
6.6	Green Synthetic Fuels for Shipping	
6.7	Green Synthetic Fuels for Road Transport	
6.8	Mining Operations	
6.9	H2 as fuel for H2 Fuel Cells	
6.10	Green Fuels for Power Stations	
6.11	Other	

7. User estimated volumes (Please provide the estimated volumes for the various periods in the below rows)

7.1	User volumes: 0-5 years (2024-2028)	
7.2	User volumes: 6-10 years (2029-2033)	
7.3	User volumes: 11-30 years (2034-2053)	

Producer of Green Hydrogen, Its Derivatives or Hydrogen Economy related components.

As a Producer of Green Hydrogen & its derivatives could you kindly provide us with some insight into your planned usage and projected volumes you intend to use per product by answering questions Q8 to Q16 below.

8. If you are Producer, kindly indicate what you would be using the Green Hydrogen & its derivatives for (Please indicate by making an **X** in the relevant column)

8.1	Green Hydrogen	
8.2	Green Ammonia	
8.3	Green Methanol	
8.4	Green Liquid Organic Hydrocarbons (LOHC)	
8.5	Green Synthetic Aviation Fuel	
8.6	Green Synthetic Diesel	
8.7	Green Metal Hydrides	
8.8	Green Plastic	
8.9	Other	

9. Are you manufacturing any of the following products for the Green Hydrogen Economy (Please indicate by making an **X** in the relevant column)

9.1	Electrolyzers	
9.2	Platinum membranes	
9.3	Hydrogen fuel cells	
9.4	Other	

10. If you answered "other" to question 9, kindly elaborate further.

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11. Are you producing products for: (Please indicate by making an **X** in the relevant column)

11.1	Internal South African Market	
11.2	Export from South Africa	
11.3	Green fuel bunkering/ Green shipping	
11.4	Other	

12. If you answered "other" to question 11, kindly elaborate further.

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13. If you are Exporting, kindly indicate your intended target market (Please indicate by making an **X** in the relevant column)

13.1	Germany	
13.2	Netherland	
13.3	Belgium	
13.4	European Union (General)	
13.5	Japan	
13.6	Korea	
13.7	United States	
13.8	Other	

14. If you answered "other" to question 13, kindly elaborate further.

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15. Producer estimated volumes (Please provide the estimated volumes for the various periods in the below rows)

15.1	Producer volumes: 0-5 years (2024-2028)	
15.2	Producer volumes: 6-10 years (2029-2033)	
15.3	Procuder volumes: 11-30 years (2034-2053)	

16. Which port are you intending to export from (Please indicate by making an **X** in the relevant column)

16.1	Port of Saldanha	
16.2	Port of Cape Town	
16.3	Port of Mossel Bay	
16.4	Port of Port Elizabeth	
16.5	Port of Ngqura	
16.6	Port of East London	
16.7	Port of Durban	