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RFQ Number	BD-RFQ-26001
Request for Quotation Date	14 July 2026
RFQ Closing Date	31 August 2026
RFQ Closing Time	16h30
Compulsory Site Briefing	N/A
Contact Person	Sinovuyo Pani
Quotation Validity	90 Days from the closing date
Submission Details	RFQ Response must be sent to: Sinovuyo.pani@necsa.co.za
RFQ Description	INDUSTRY AND MARKET STUDY FOR Xenon Difluoride (XeF2)

Dear Service Provider

Kindly provide a quotation for goods and or services as outlined in section 2 of this document.

1. Introduction

The South African Nuclear Energy Corporation Limited (Necsa) is a state-owned public company (SOC), registered in terms of the Companies Act, (Act No. 61 of 1973), registration number 2000/003735/06.

The Necsa Group engages in commercial business mainly through its wholly-owned commercial subsidiaries: NTP Radioisotopes SOC Ltd (NTP), which is responsible for a range of radiation-based products and services for healthcare, life sciences and industry, and Pelchem SOC Ltd (Pelchem), which supplies fluorine and fluorine-based products. Both subsidiaries, together with their subsidiaries, supply local and global markets, earning valuable foreign exchange for South Africa and are among the best in their field in their respective world markets.

Necsa's safety, health, environment and quality policies provides for top management commitment to compliance with regulatory requirements of ISO 14001, OHSAS 18001 and RD 0034 (Quality and Safety Management Requirements for Nuclear Installations), ISO 9001 and ISO 17025.

Necsa promotes the science, technology and engineering expertise of South Africa and improves the public understanding of these through regular communications at various forums and outreach programmes to the community. We are a proudly South African company continuously striving, and succeeding in many respects, to be at the edge of science, technology and engineering related to the safe use of nuclear knowledge to improve our world.

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For more information on Necsa, please visit: www.necsa.co.za

Purpose

This document constitutes a Request for Quotation (RFQ) for a **Detailed Industry and Market Study for Xenon Difluoride (XeF₂)**.

Prospective service providers are invited to provide a quotation as by the **Scope of Work** outlined below:

2. Scope of Work

The Deliverable is an Industry and Market Report entitled: **Industry and Market Report on Xenon Difluoride (XeF₂)**, which should contain, but not be limited to, the following

1. MARKET LANDSCAPE ANALYSIS

The Service Provider must provide a detailed analysis of demand landscape, covering:

1.1 MARKET SEGMENTS, CUSTOMERS AND END USERS

- 1.1.1 Description of Market Segments for XeF₂ by geographical area (including, but not limited to customers, end users and market share)
- 1.1.2 Analysis of Market Segments by Grade including, but not limited to 5N (99.999%) and 6N (99.9999%) purity (covering customers, end users, and market share for each Grade)
- 1.1.3 Analysis of Market Segments by application industry/sector (including, but not limited to customers, end users, and market share)
- 1.1.4 Overview of Semiconductors industry by geographical location and device type (including trends, market size, market value, XeF₂ share of market value, growth etc)
- 1.1.5 Overview of Micro Electro-Mechanical Systems (MEMS) industry by geographical location and device type (including trends, market size, market value, XeF₂ share of market value, growth etc)

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- 1.1.6 Overview of other application industries (including trends, market size, market value, XeF2 share of market value, growth etc)
- 1.1.7 Market Price of XeF2 by Grade
- 1.1.8 Customer Consumption in volume

1.2 MARKET SIZE (VOLUME AND MARKET VALUE)

- 1.2.1 Overall Global Market Size
- 1.2.2 Market Size by Geographical Segment (e.g. India, China etc)
- 1.2.3 Market Size by application sector/industry segment (e.g.
- 1.2.4 Semiconductors, Micro Electro-mechanical systems etc)
- 1.2.5 Market Size by Grade

1.3 MARKET GROWTH TRENDS

- 1.3.1 Overall Global Market Growth (5-year historical CAGR and 5-year CAGR forecast)
- 1.3.2 Market Growth By Geographical Segment (5-year historical CAGR and 5-year CAGR forecast)
- 1.3.3 Analysis of Market Growth by Application Sector/Industry (5-year historical CAGR and 5-year CAGR forecast)
- 1.3.4 Market Growth by Grade (5-year historical CAGR and 5-year CAGR forecast)

1.4 OTHER MARKET DYNAMICS

- 1.4.1 Trends over the next ten (10) years (including, but not limited to demand drivers, geopolitical and supply chain dynamics, etc)
- 1.4.2 Bargaining Power of Buyers (Offtakers/Customers and end users)
- 1.4.3 Customer Qualification Requirements
- 1.4.4 Supplier Switching Barrier Assessment

1.5 OVERALL SYNTHESIS OF MARKET POTENTIAL OFFTAKE OPPORTUNITIES

- 1.5.1 Synthetic summary of market potential for XeF2
- 1.5.2 Recommendations on XeF2 offtake opportunities (potential new customers)

2. COMPETITOR LANDSCAPE ANALYSIS

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The Service Provider must provide a detailed analysis of competitors landscape, covering:

2.1 COMPETITORS, PRODUCTION CAPACITIES AND MARKET SHARE

- 2.1.1 Identification and analysis of competitors by XeF2 Grade (including Production Capacities, Production throughput (actual) Vs capacity (design), Supply Capacities and Market Share)
- 2.1.2 Evaluation of competitive rivalry /behavior
- 2.1.3 Price analysis by XeF2 Grade by competitor
- 2.1.4 Analysis of Drivers of competitiveness
- 2.1.5 Export Footprint and Distribution Network Analysis
- 2.1.6 Analysis of competitors' strategic partnership models

2.2 NEW ENTRANTS, THREATS OF SUBSTITUTES AND BARRIERS TO ENTRY

- 2.2.1 Analysis of Threats and Challenges (including, but not limited to, threat of substitute products for similar applications, new entrants and other threats and challenges)
- 2.2.2 Trends in XeF2 technology development including involved companies
- 2.2.3 Analysis of Restraints and Barriers to Entry
- 2.2.4 Analysis of New entrants to the competition
- 2.2.5 Regulatory Considerations

2.3 PACKAGING, STORAGE AND LOGISTICS ASSESSMENT

- 2.3.1 Packaging practices and packaging suppliers for XeF2
- 2.3.2 XeF2 tool makers, detail on the companies and the specific tools.
- 2.3.3 Analysis of Distribution Channels
- 2.3.4 Logistical costs analysis
- 2.3.5 Geopolitical and Supply Chain Risk Assessment

2.4 RAW MATERIALS

- 2.4.1 Xenon Cost Analysis
- 2.4.2 Anhydrous Hydrogen Fluoride (AHF) Cost Analysis
- 2.4.3 Fluorine (F2) Cost Analysis
- 2.4.4 Utilities Cost Assessment
- 2.4.5 Labour Cost Assessment
- 2.4.6 Raw materials supply chain considerations

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2.5 OTHER

2.5.1 Overall Synthesis and Recommendations on Potential Strategic Partnerships for Pelchem

NB: The Market Report must demonstrate a great deal of professionalism including in respect of sources used to obtain information. The use of Artificial Intelligence is strongly discouraged as it defies the purpose of outsourcing these services.

List of compulsory information and documentation

The potential suppliers should supply the following information and documentation in response to the RFQ:

- Company Profile (Company overview, Key Executives, Company snapshot, Operating business segments, Product portfolio, Business performance, Key strategic moves and developments)
- A Table of Contents of the proposed Market Report.
- Number of clients supplied with market research studies for chemicals and other sectors
- CV's of market researchers who compiled market reports, clearly stating experience in market studies for chemicals.
- Indicate the sources of information used to carry out the market research (The use of Artificial Intelligence is strongly discouraged as it defies the purpose of outsourcing these services)

DELIVERABLE:

Industry and Market Report on Xenon Difluoride (XeF₂)

EXPECTED DURATION:

1-2 MONTHS

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3. Pricing

- All price quoted to include all applicable taxes.
- Price must be fixed and firm
- Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, disbursements etc.
- Quotation must be completed in full, incomplete quote could result in a quote being disqualified.
- Payment will be according to Necsa's General Conditions of Purchase.
- Necsa is prohibited to do advance payments on this RFQ.

4. Evaluation

4.1. Phase 1- Functionality Evaluation / Technical Evaluation

Where functional or technical evaluation criterion is applicable, assessment will be performed in terms of the criterion listed below and the criterion may include Technical, Performance, Quality and Risk.

If the Bidder's response to the Technical templates does not indicate that the Bidder can support an acceptable technical solution, the Bidder's response will be rejected and not evaluated further.

Together the Technical, Performance & Quality and Risk criteria make up the functionality criterion and a Bidder's Proposal will be evaluated for functionality out of a possible 100 points. Only RFQ responses achieving an evaluation score of greater than the set threshold points out of the possible 100 points and which score a number of points for functionality that is greater than or equal to the set threshold points of the number of points achieved by the highest scoring Bid for functionality will be selected to progress to the second stage.

Item	Requirement	Weight	Points	Criteria
1	Breakdown of Market Report Table of Contents by Scope of Work	25	25	Clear Breakdown of Market Report table of Contents by scope of work
			0	If the breakdown is not clear
2	Traceable institutional experience with compilation of market reports	25	25	8 or more market reports done
			15	3-7 market reports done

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Item	Requirement	Weight	Points	Criteria
	for chemicals (Verifiable names and number of clients for which Market Reports were provided, and titles of reports)		0	2 or less market reports done
3	Method/Mechanism to ensure reliability of Market Size, Value and Growth Data	25	25	Clearly demonstrated method
			15	Partially demontsrated method
			0	No clear method
4	Experience of market research leader who compiled market reports, clearly stating experience in market studies for chemicals (CVs of Market research leader)	25	25	7 years and above years of experience
			15	3-6 years
			0	2 and less
Total		100		

Note: Bidders that score less than 75 out of 100 in respect of Technical/Functional evaluation criteria will be regarded as submitting a non-responsive bid and will not be evaluated further.

4.2. **Phase 2 - Evaluation In Terms Of Preferential Procurement Policy Framework Act, 2022**

This bid will be evaluated and adjudicated according to the 80/20 point system, in terms of which a maximum of 80 points will be awarded for price and 20 points will be allocated based on the specific goals (B-BBE status level).

	POINTS
PRICE	80
SPECIFIC GOALS (B-BBEE status level)	20
Total points for Price and SPECIFIC GOALS	100

Preference goal

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B-BBEE status level contributor

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

5. Required Documentation

- Tax Clearance Certificate (Tax pin issued by SARS)
- Declaration of interest (SBD 4)
- BEE Certificate / Applicable Affidavit if classified as EME
- Letter of Good Standing (COID) only if Applicable due to the nature of work required
- Any other document or certification that might have been requested on this RFQ

6. Important

- 6.1. Quotation must be submitted on or before the RFQ closing date and time stated above.
- 6.2. Orders above R 30 000 will be evaluated according to the PPPFA 80/20-point system and a functionality scorecard where applicable and the ones above R 1 Million will be subjected to the tender process.
- 6.3. This RFQ is subjected to the Necsa's General Conditions of Purchase, Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC) and, if applicable, any other legislation or special conditions of contract
- 6.4. Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for specific goals are not claimed.

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- 6.5. The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to specific goals, in any manner required by the purchaser.
- 6.6. For a Bidder to obtain clarity on any matter arising from or referred to in this document, please refer queries, in writing, to the contact details provided above. Under no circumstances may any other employee within Necsa be approached for any information. Any such action might result in a disqualification of a response submitted in competition to this RFQ.
- 6.7. No goods and/or services should be delivered to Necsa without an official Necsa Purchase order.
- 6.8. Necsa reserves the right to; cancel or reject any quote and not to award the RFQ to the lowest Bidder or award parts of the RFQ to different Bidders, or not to award the RFQ at all.
- 6.9. The supplier shall under no circumstances offer, promise or make any gift, payment, loan, reward, inducement, benefit or other advantage, which may be construed as being made to solicit any favour, to any Necsa employee or its representatives. Such an act shall constitute a material breach of the Agreement and the Necsa shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights
- 6.10. By responding to this request, it shall be construed that: the bidder, hereby acknowledge to be fully conversant with the details and conditions set out in the Necsa's General Conditions of Purchase, Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations, 2022, the General Conditions of Contract (GCC), Technical Information and Specifications attached, and hereby agree to supply, render services or perform works in accordance therewith
- 6.11. The Report must be completed within two months of award of contract and must meet the quality acceptance criteria implied in/by the scope of work

Necsa's General Conditions of Purchase will be applicable in the event of a purchase order.