

Request for Proposals (RFP)

**Design, supply and install a 1 ha energy efficient
irrigation system at the ARC Nelspruit site in
Mpumalanga**

RFP No. 938/05/03/2021

Date of Issue	Monday, 01 February 2021	
Compulsory Briefing Session	Thursday, 18 February 2021 at 16:30 Venue: Nelspruit Site in Mpumalanga Time: 10:00am	
Closing Date	Thursday, 05 March 2021	
Place	Electronically – tender@csir.co.za	
Enquiries	Strategic Procurement Unit	E-mail: tender@csir.co.za
CSIR business hours	08h00 – 16h30	
Category	Professional	

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SECTION A – TECHNICAL INFORMATION

1 INTRODUCTION

The Council for Scientific and Industrial Research (CSIR) is one of the leading scientific research and technology development organisations in Africa. In partnership with national and international research and technology institutions, CSIR undertakes directed and multidisciplinary research and technology innovation that contributes to the improvement of the quality of life of South Africans. The CSIR's main site is in Pretoria while it is represented in other provinces of South Africa through regional offices.

2 BACKGROUND

The CSIR is developing an essential oil project in collaboration with the Agricultural Research Council (ARC).

Essential oils are the volatile, fragrant constituents of aromatic plants extracted from the leaves, stems and flowers by a process of steam distillation. Essential oils are highly valuable products, used internationally in fragrance-related industries, key ingredients in perfumes, shampoos, soaps, aromatherapy, cosmetic and pharmaceutical products. Examples of common essential oils are Lavender, Rose geranium, Tea tree, Eucalyptus (blue gum), Citrus (orange and lemon) etc.

South Africa is well-positioned to contribute to this sector, as the country is richly blessed with fertile land, a diverse climate, resources, basic infrastructure and a strong tradition in agriculture. The development of this sector can provide opportunities to numerous small-scale farmers

The cultivation of the essential oil crops requires irrigation water for development. A specific requirement is for a simple and cost effective method for irrigating these crops on a 1 ha area.

3 INVITATION FOR PROPOSAL

Proposals are hereby invited for the design, supply and install a 1 ha energy efficient irrigation system at the ARC Nelspruit site in Mpumalanga.

4 PROPOSAL SPECIFICATION

All proposals are to be submitted in a format specified in this enquiry. However, tenderers are welcome to submit additional / alternative proposals over and above the originally specified format.

The specifications include:

The Contractor must design, supply and install a 1 ha energy efficient irrigation system at the ARC Nelspruit site in Mpumalanga.

4.1 The design of the system must take the following into account:

- The total cultivation trial area is 1 ha which requires irrigation (Figure 1), split between two sub-sites namely I9 and H4.
- I9 consists of an area of approximately 0.65 ha (Figure 2)
- H4 consists of an area of approximately 0.35 ha (Figure 3)
- Energy efficient system should include solar pumps
- Drip irrigation is required delivering approximately 1 L of water per hour at each dripper point
- The irrigation requirements are on average 35 mm per week (approximately 1 400 m³ / ha / month).
- The plant density is approximately 60 000 plants per ha
- The plants will be planted on flat surface and will be arranged in a double row planting pattern.
- Spacing between the plants in a row will vary from 300 – 500 mm, depending on the crop.
- The total area of the I9 and H4 trial sites is 1 ha, which will be divided into 6 experimental essential oil crop plots, each plot with the dimension of approximately 15m x 100m (Figure 2 and Figure 3), which will be irrigated separately by opening and closing a flow control valve.
- A solar pump will also be required to transfer water from the irrigation water dam to 2 x 10 000 L water storage tanks (Jojo), (Figure 1), one 10 000 L water storage tank located at I9 and another one 10 000 L water storage tank located at H4.

- The 2 x 10 000 L water storage tanks (Jojo) is needed to store irrigation water and then distributed to the land. Solar pumps are required for distributing the water through the 1 ha on field drip irrigation system, for each of the water storage tanks (Jojo), (Figure 1).
 - An appropriately sized filter unit suitable for irrigating the 1 ha area will also be required to filter the water prior to being introduced into the drip irrigation system, to prevent blockages.
 - An appropriately sized fertigation unit suitable for the 1 ha area will also be required to provide water soluble / liquid fertiliser to the essential oil crops.
 - A basic water meter and solenoid valve is required to control the irrigation flow per plot.
 - A floating ball valve is required to control the water level in the 2 x 10 000 L water storage tanks (Jojo)
- 4.2 The design must inter alia, determine the optimum area that can be irrigated at any given time; the sizes of irrigation blocks; and the type and size of the drippers. The service provider also has to submit a bill of quantities detailing the specifications of equipment that will be required.
- 4.3 The service provider must also include necessary security aspects to protect solar panels and other valuable components, which are likely to be stolen, as part of the design.
- 4.4 **The Contractor must install the irrigation system, including the following activities:**
- Testing of the system subsequent to installation.
 - Ensuring that the system is fully functional and operates at the correct pressure.
 - Development of a detailed maintenance plan, including preventative maintenance schedules and spares requirements.
 - Provide training on the operation of the irrigation system
- 4.5 The Contractor must provide details of the type and nature of after-sales service that will be provided. For this reason, it is mandatory for the supplier to be located or have an agent within the Mpumalanga Province.

- 4.6 A briefing session will be held on-site on Thursday 18 February 2021. It is compulsory to attend the briefing session prior to submitting a proposal, to ensure a proper and complete understanding of the requirements. Please confirm your attendance by Friday 12 February 2021 at 16:30 with the CSIR by sending confirmation to tender@csir.co.za and ewadiwala@csir.co.za



Figure 1. Essential oil trial sites at ARC-TSC Nelspruit Experimental Farm, Mpumalanga

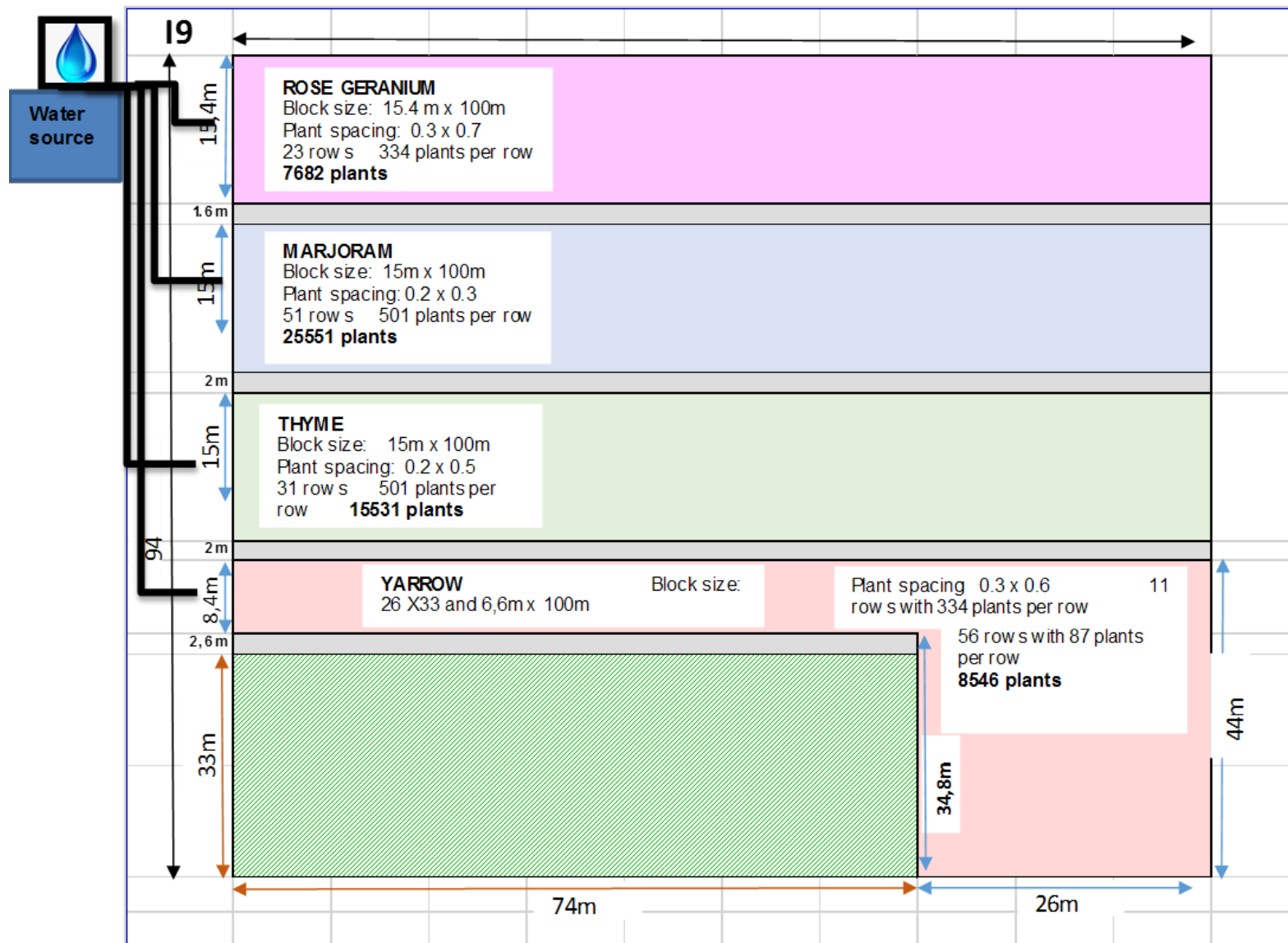


Figure 2. Planting layout of the H4 trial site

4.7 Deliverables

The Contractor must work in close collaboration with the CSIR and the ARC farm manager to ensure that complementary activities are effectively executed and that the work is completed within the budget and time schedule.

The Contractor must provide:

- A design of a 1 ha energy efficient irrigation system

- Supply and install a fully functional 1 ha energy efficient irrigation system on site
- Train the users of the system
- Supply the necessary maintenance documents, guarantee and warranty information

4.8 **Obligations of the CSIR**

The CSIR will provide the following:

- Un-inhibited access to the site.
- Supply of relevant information required by the Contractor.
- Details of the CSIR and on-site contact persons for communication purposes with the Contractor

4.9 **Project Schedule**

All Respondents to this RFP must provide a project schedule containing a list of key milestones and firm completion dates.

The project schedule should at least contain the following milestones:

- Commencement of irrigation system design
- Completion of irrigation system design
- Submission of bill of quantities, including prices
- Supply and delivery of irrigation equipment and materials
- Completion of irrigation system installation
- Completion of irrigation system commissioning
- Completion of user training
- Delivery of maintenance manual
- Project sign-off by CSIR

4.10 **Payment terms and conditions**

- Prices are to be quoted on a VAT exclusive basis.
- All prices quoted are to be firm, and valid for a minimum of 90 days.
- The CSIR shall not be obliged to accept proposals with the lowest quoted price.
- The schedule of payment required by the contractor must be indicated in the proposal.

4.11 **General**

Respondents are required to supply the following supplementary information and comply with the conditions stipulated:

- A brief description of the Respondent's organisation and an outline of recent experience on assignments of a similar nature.
- A brief description of the Respondent's technical expertise on assignments of a similar nature
- The Respondent's must outline the after sales service and support that will be provided
- List of services, and facilities to be provided by the CSIR (if any).
- A description of the methodology and work plan for performing the assignment, based on experience and/or research undertaken by the Respondent.
- Any other information felt to be relevant to the final decision to be made by the Project team.

5 FUNCTIONAL EVALUATION CRITERIA

5.1 The evaluation of the functional / technical detail of the proposal will be based on the following criteria:

Criteria	Weight	0	5	10
Experience and expertise in the design, supply and installation of energy efficient irrigation systems	35%	No experience	Designed, supplied and installed at least 5 energy efficient systems	Designed, supplied and installed at least 10 energy efficient systems
Technical design & operational specification of the irrigation system in terms of functionality/efficiency and operations/maintenance costs	35%	No expertise	Demonstrate efficient technical design to operational specification – at least 5 functional / efficient systems	Demonstrate highly efficient technical expertise – to operational specification – at least 10 functional / efficient systems
After sales service and support for energy efficient irrigation systems	30%	Poor after sales service	Medium level of after sales service	Good after sales service
TOTAL	100%			

5.1 Proposals with functionality / technical points of less than the pre-determined minimum overall percentage of 70% and less than 50% on any of the individual criteria will be eliminated from further evaluation.

5.2 Refer to Annexure A for the scoring sheet that will be used to evaluate functionality.

6 ELIMINATION CRITERIA

Proposals will be eliminated under the following conditions:

- Submission after the deadline;
- Proposals submitted at incorrect email address

- Proposals that are out of scope or specifications presented in this document;
- Non-attendance of the compulsory briefing session / site inspection;
- Failure to submit a completed SBD 1 and Local Content Declaration Form SBD 6.2 Annexure C, D and E
- Failure to submit completed Declaration by Tenderer
- Failure to submit COIDA
- Non-submission of CIDB certificate of 1SH or higher
- Provide a list of similar projects which indicates: description of works, client, year when the works were completed, and contact details of the responsible person of the client, for the project listed

7 NATIONAL TREASURY CENTRAL SUPPLIER DATABASE REGISTRATION

Before any negotiations will start with the winning bidder it will be required from the winning bidder to:

- be registered on National Treasury's Central Supplier Database (CSD). Registrations can be completed online at: www.csd.gov.za;
- provide the CSIR of their CSD registration number; and

provide the CSIR with a certified copy of their B-BBEE certificate. If no certificate can be provided, no points will be scored during the evaluation process. (RSA suppliers only)

SECTION B – TERMS AND CONDITIONS

8 VENUE FOR PROPOSAL SUBMISSION

All proposals must be submitted at:

- tender@csir.co.za
- all bids must be clearly marked with the bidders name, and the contents of the email.
- Emails may be sent in parts if exceeding 30MB per document.

9 TENDER PROGRAMME

The tender program, as currently envisaged, incorporates the following key dates:

- | | |
|---|------------------|
| • Issue of tender documents: | 01 February 2021 |
| • Compulsory Site Briefing | 18 February 2021 |
| • Last date for submission of queries: | 03 March 2021 |
| • Closing / submission Date: | 05 March 2021 |
| • Estimated contract duration (in months/years) | 3 months |

10 SUBMISSION OF PROPOSALS

- 10.1 All proposals are to be clearly marked with the RFP. Proposals must consist of two parts, each of which must be separately submitted:

PART 1: Technical Proposal: **RFP No.: 938/05/03/2021**

PART 2: Pricing Proposal, B-BBEE and other Mandatory Documentation:
RFP No.: 938/05/03/2021

- 10.2 Proposals submitted by companies must be signed by a person or persons duly authorised.
- 10.3 The CSIR will award the contract to qualified tenderer(s)' whose proposal is determined to be the most advantageous to the CSIR, taking into consideration the technical (functional) solution, price and B-BBEE.

11 DEADLINE FOR SUBMISSION

Proposals shall be submitted at the email address mentioned above no later than the closing date of **Friday, 05 March 2021** during CSIR's business hours. The CSIR business hours are between 08h00 and 16h30.

Where a proposal is not received by the CSIR by the due date and stipulated email address, it will be regarded as a late tender. Late tenders will not be considered.

12 AWARDING OF TENDERS

12.1 Awarding of tenders will be published on the National Treasury e-tender portal. No regret letters will be sent out.

13 EVALUATION PROCESS

13.1 Evaluation of proposals

All proposals will be evaluated by an evaluation team for functionality, price and B-BBEE. Based on the results of the evaluation process and upon successful negotiations, the CSIR will approve the awarding of the contract to successful tenderers.

A two-phase evaluation process will be followed.

- The first phase includes evaluation of **elimination** and **functionality criteria**.
- The second phase includes the evaluation of **price** and **B-BBEE** status.

Pricing Proposals will only be considered after functionality phase has been adjudicated and accepted. Only proposals that achieved the specified minimum qualification scores for functionality will be evaluated further using the preference points system.

13.2 Preference points system

The 80/20 preference point system will be used where 80 points will be dedicated to price and 20 points to B-BBEE status.

14 PRICING PROPOSAL

14.1 Pricing proposal must be cross-referenced to the sections in the Technical Proposal. Any options offered must be clearly labelled. Separate pricing must be provided for each option offered to ensure that pricing comparisons are clear and unambiguous.

14.2 Price needs to be provided in South African Rand (excl. VAT), with details on price elements that are subject to escalation and exchange rate fluctuations clearly indicated.

14.3 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable.

14.4 Only firm prices* will be accepted during the tender validity period. Non-firm prices** (including prices subject to rates of exchange variations) will not be considered.

**Firm price is the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax which, in terms of a law or regulation is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;*

***Non-firm price is all prices other than "firm" prices.*

14.5 Payment will be according to the CSIR Payment Terms and Conditions.

15 VALIDITY PERIOD OF PROPOSAL

Each **proposal** shall be valid for a minimum period of three (3) months calculated from the closing date.

16 APPOINTMENT OF SERVICE PROVIDER

16.1 The contract will be awarded to the tenderer who scores the highest total number of points during the evaluation process, except where the law permits otherwise.

16.2 Appointment as a successful service provider shall be subject to the parties agreeing to mutually acceptable contractual terms and conditions. In the event of the parties failing to reach such agreement CSIR reserves the right to appoint an alternative supplier.

16.3 Awarding of contracts will be announced on the National Treasury website and no regret letters will be sent to unsuccessful bidders.

17 ENQUIRIES AND CONTACT WITH THE CSIR

Any enquiry regarding this RFP shall be submitted in writing to CSIR at tender@csir.co.za with **"RFP No 938/05/03/2021 – Design, supply and install a 1 ha energy efficient irrigation system at the ARC Nelspruit site in Mpumalanga, to the CSIR"** as the subject.

Any other contact with CSIR personnel involved in this tender is not permitted during the RFP process other than as required through existing service arrangements or as requested by the CSIR as part of the RFP process.

18 MEDIUM OF COMMUNICATION

All documentation submitted in response to this RFP must be in English.

19 COST OF PROPOSAL

Tenderers are expected to fully acquaint themselves with the conditions, requirements and specifications of this RFP before submitting proposals. Each tenderer assumes all risks for resource commitment and expenses, direct or indirect, of proposal preparation and participation throughout the RFP process. The CSIR is not responsible directly or indirectly for any costs incurred by tenderers.

20 CORRECTNESS OF RESPONSES

- 20.1 The tenderer must confirm satisfaction regarding the correctness and validity of their proposal and that all prices and rates quoted cover all the work/items specified in the RFP. The prices and rates quoted must cover all obligations under any resulting contract.
- 20.2 The tenderer accepts that any mistakes regarding prices and calculations will be at their own risk.

21 VERIFICATION OF DOCUMENTS

- 21.1 Tenderers should check the numbers of the pages to satisfy themselves that none are missing or duplicated. No liability will be accepted by the CSIR in regard to anything arising from the fact that pages are missing or duplicated.
- 21.2 Pricing schedule and B-BBEE credentials should be submitted with the proposal, but as a separate document and no such information should be available in the technical proposal.

22 SUB-CONTRACTING

- 22.1 A tenderer will not be awarded points for B-BBEE status level if it is indicated in the tender documents that such a tenderer intends sub-contracting more than **25%** of the value of the contract to any other enterprise that does not qualify for at least the points that such a tenderer qualifies for, unless the intended sub-contractor is an exempted micro enterprise that has the capability and ability to execute the sub-contract.
- 22.2 A tenderer awarded a contract may not sub-contract more than **25%** of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an exempted micro enterprise that has the capability and ability to execute the sub-contract.

23 ENGAGEMENT OF CONSULTANTS

The consultants will only be remunerated at the rates:

- 23.1 Determined in the "Guideline for fees", issued by the South African Institute of Chartered Accountants (SAICA); or
- 23.2 Set out in the "Guide on Hourly Fee Rates for Consultants", by the Department of Public Service and Administration (DPSA); or
- 23.3 Prescribed by the body - regulating the profession of the consultant.

24 TRAVEL EXPENSES

- 24.1 All travel expenses for the CSIR's account, be it directly via the CSIR's travel agent or indirectly via re-imbursements, must be in line with the CSIR's travel policy. The following will apply:
- 24.1.1 Only economy class tickets will be used.
- 24.1.2 A maximum of R1400 per night for accommodation, dinner, breakfast and parking will be allowed.
- 24.1.3 No car rentals of more than a Group B will be accommodated.

25 ADDITIONAL TERMS AND CONDITIONS

- 25.1 A tenderer shall not assume that information and/or documents supplied to CSIR, at any time prior to this request, are still available to CSIR, and shall consequently not make any reference to such information document in its response to this request.
- 25.2 Copies of any affiliations, memberships and/or accreditations that support your submission must be included in the tender.
- 25.3 In case of proposal from a joint venture, the following must be submitted together with the proposal:
- Joint venture Agreement including split of work signed by both parties;
 - The original or certified copy of the B-BBEE certificate of the joint venture;
 - The Tax Clearance Certificate of each joint venture member;
 - Proof of ownership/shareholder certificates/copies; and
 - Company registration certificates.
- 25.4 An omission to disclose material information, a factual inaccuracy, and/or a misrepresentation of fact may result in the disqualification of a tender, or cancellation of any subsequent contract.
- 25.5 Failure to comply with any of the terms and conditions as set out in this document will invalidate the Proposal.

26 CSIR RESERVES THE RIGHT TO

- 26.1 Extend the closing date;
- 26.2 Verify any information contained in a proposal;
- 26.3 Request documentary proof regarding any tendering issue;
- 26.4 Give preference to locally manufactured goods;
- 26.5 Appoint one or more service providers, separately or jointly (whether or not they submitted a joint proposal);
- 26.6 Award this RFP as a whole or in part;
- 26.7 Cancel or withdraw this RFP as a whole or in part.

27 DISCLAIMER

This RFP is a request for proposals only and not an offer document. Answers to this RFP must not be construed as acceptance of an offer or imply the existence of a contract between the parties. By submission of its proposal, tenderers shall be deemed to have satisfied themselves with and to have accepted all Terms & Conditions of this RFP. The CSIR makes no representation, warranty, assurance, guarantee or endorsements to tenderer concerning the RFP, whether with regard to its accuracy, completeness or otherwise and the CSIR shall have no liability towards the tenderer or any other party in connection therewith.

DECLARATION BY TENDERER

Only tenderers who completed the declaration below will be considered for evaluation.

RFP No:

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / proposal specifications stipulated in RFP No..... at the price/s quoted. My offer/s remains binding upon me and open for acceptance by the CSIR during the validity period indicated and calculated from the closing date of the proposal.

I confirm that I am satisfied with regards to the correctness and validity of my proposal; that the price(s) and rate(s) quoted cover all the services specified in the proposal documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this proposal as the principal liable for the due fulfilment of this proposal.

I declare that I have no participation in any collusive practices with any tenderer or any other person regarding this or any other proposal.

I accept that the CSIR may take appropriate actions, deemed necessary, should there be a conflict of interest or if this declaration proves to be false.

I confirm that I am duly authorised to sign this proposal.

NAME (PRINT)
CAPACITY
SIGNATURE
NAME OF FIRM
DATE

WITNESSES

1
2
DATE:

28 ANNEXURE A

Functional factors	Weight	Supplier 1	Supplier 2	Supplier 3	Supplier 4	Supplier 5
Experience and expertise • Design • Supply • Installation	35%					
Technical • Design / operational specification • Functionality / Efficiency • Operational / Maintenance intensity	35%					
After sales service and support	30%					
TOTAL	100%					

29 ANNEXURES FOR LOCAL CONTENT

Published as separate documents and should only be used for designated sectors.