Request for Proposals (RFP)

The provision of services to develop a compressed air system scoping tool to analyse, assess and evaluate opportunities for energy savings through control optimization to CSIR

RFP No. 982/17/12/2021

Date of Issue	26 November 2021	
Closing Date	17 December 2021	
Place	tender@csir.co.za	
Enquiries	Strategic Procurement Unit	E-mail: tender@csir.co.za
CSIR business hours	08h00 – 16h30	

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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 GEF SA IEE Project focuses on promoting IEE through accelerating and mainstreaming the adoption of EnMS and ESO in South African industrial plants. UNIDO has been involved with the ISO 50001 Energy Management System Standard since its development and was one of the first organizations to package and promote the two concepts of Energy Management System (EnMS) and Energy System Optimization (ESO) for industry. The project presents leading global experiences and an extensive knowledge relating to skills development, hard and software tools to promote and support EnMS implementation and the ISO 50001 certification scheme. The SA IEE Phase II GEF Project contains five topic components and a sixth component under which an extensive M&E programme will be carried out. M&E has formed a major aspect of the SA IEE Project and the developed methodologies are to be carried forward into the SA IEE Phase II GEF Project. The components and their expected respected outcomes are:

Component 1.0: Data Quality Improvement to Facilitate Data Rich Industrial Energy Efficiency and Energy Management Policy Implementation – Expected Outcomes: Strengthened energy management planning (and related energy and GHG emissions reduction target setting) through improved data and reporting on energy consumption and potential savings under EnMS and ESO. (Note: The SA IEE Phase II GEF Project will assist the Government of South to improve industrial

energy consumption data gathering and quality, as this remains a significant barrier to policy implementation).

Component 2.0: Strengthening Policy Implementation and Support Frameworks for EnMS, ESO and Energy Management Standards – Expected Outcomes: Enhances promotion of investment in IEE through strengthened policy and regulatory frameworks and support to increase the uptake of energy management standards. (Note: The SA IEE Phase II GEF Project will work with multiple Government Departments and Agencies in order to assist in better implementation and coordination of policy and regulatory mechanisms). The original SA IEE Project worked extensively to institutionalize the main ISO 50001 standard, the SA IEE Phase II GEF Project will continue this work but expand to the rest of the series i.e., ISO 50002, ISO 50003, ISO 50006, ISO 50026 which is analogous to SANS 50010).

Component 3.0: Mainstreaming EnMS and ESO Training and Skills Development Programmes – Expected Outcomes: Expansion of the EnMS and ESO capacity building programme with the inclusion of new ESO topics and multi-level enterprise trainee courses under parallel NQF institutionalization and market capacitation enhances the capacity of the South African industrial sector to implement EnMS and ESO and achieve energy savings.

Component 4.0: Investment Promotion in IEE through demonstration of EnMS and ESO and support to access financial mechanisms and incentives for industry and selected commercial sectors – Expected Outcomes: Access to finance increased with the energy and cost saving benefits of EnMS and ESO proven within the South African industrial context with industry actively and progressively pursuing enhanced IEE. At least 150 EnMS and ESO demonstration enterprises should be established through the SA IEE Phase II GEF Project. The project should also facilitate greater access to existing financial mechanisms, through providing targeted technical support to FIs/IFIs for the financing EnMS/ESO/general IEE projects.

Component 5.0: EnMS and ESO Awareness, Promotion, Service Demand Generation and Lessons Sharing – Expected Outcomes: Enterprise management (across the entire South African industrial sector and selected commercial sectors) is aware of the potential financial, economic and climate change mitigation benefits that adopting EnMS and ESO can yield.

Component 6.0: Project Monitoring and Evaluation - Expected Outcomes: The GEF Project is fully monitored and evaluated under periodic implementation assessment of impact, based on the 'Theory of Change' methodological approach.

3 INVITATION FOR PROPOSAL

Proposals are hereby invited to appoint services of a service provider who will work to develop a compressed air system scoping tool to analyse, assess and evaluate whether an opportunity for energy savings exists in sites which have multiple compressors, through control optimization. to the CSIR's.

4 PROPOSAL SPECIFICATION

4.1 Objective:

The primary objective of the project is to develop a tool to analyse, assess and evaluate what type of control be it a sequencer type or others for compressed air system for industry to use to help them optimize their compressed air system.

All proposals are to be submitted in a format specified in this enquiry:

- Background, summary of company, details of company
- List of previous projects (include brief summary, client, budget, duration, reference). Projects to be categorised as follows:
  - List of projects in similar field
  - List of other projects
- Company resources (please include qualifications and years of experience, CV's to be provided)
  - Technical lead
  - Trainer/s experience
- Project plan / Approach and Methodology (Please provide a project plan, in accordance, on how the above project will be executed, plan to include but not limited to the following):
  - Activities and Deliverables
  - Milestones
  - Timeframe
  - Cash flow

- Quality assurance plan
- Risk management plan and methodology configuration and document management system
- Project management tool(s)

4.2 SCOPE OF WORK

Development of a compressed air scoping tool to analyse, assess and evaluate whether an opportunity for energy savings exists in sites which have multiple compressors, through control optimization:

- The tool needs to allow for data input, analysis of the data, assess and evaluate the potential for compressed air system control optimization. The tool should also advise/suggest the optimal/efficient control to use, quantify in terms of kw power, Rands, air flow etc.
- The tool should assess what the compressed air system state is and what possible gaps are there to attain an optimized compressed air system.
- The tool needs to be able to analyse a minimum of 2 multicompressors to a maximum number of 20 compressors of different types i.e., load/unload and VSD (variable speed drive), trim and baseload.
- The tool needs to analyse whether there is a need for a sequencer in the compressor control philosophy or not and quantify or demonstrate the potential benefit thereof.
- The tool should allow for scoping/probing of a compressed air system regarding high level potential savings opportunities and to access and quantify the opportunity that is available.

- The tool should assist the facility to highlight the immediate compressed air system energy savings opportunities which could subsequently lead to reduced maintenance, decreased downtime, increase production throughput, and improvement in product quality.

4.3 PROGRAMME OUTPUTS/DELIVERABLES:

Deliverable/Task List	**Expected Results**	**Duration(days)**

Phase 1: Project briefing -Meeting between NCPC-SA project manager and contractor to finalize schedule and scope.	Briefing notes	**0.4**
Phase 2: Development of the tool to analyse, assess and evaluate compressed air system savings potential for sites with multiple compressors.	Excel based tool/(this may be in MS Excel or any other user friendly format	**20**
1.The tool needs to be able to control a minimum of 2 multicompressors to a maximum number of 20 compressors of different types i.e., load/unload and VSD (variable speed drive), trim and baseload.		
2. The tool needs to analyse, assess the as is condition of the compressed air system and advice/suggest the optimal/efficient control to use, quantify in terms of kwh power, Rands, air flow etc..		
4.The tool needs to analyse whether there is a need for a sequencer in the compressor control philosophy or not and quantify or demonstrate the potential benefit thereof		
5.The tool should assess what the compressed air system state is and what possible gaps are there to attain an optimized compressed air system, with quantification of potential benefits and savings		
6.Testing of the tool by service provider to the NCPC-SA Project Manager	Acceptance report	**0.4**
7.Final handover of the developed tool	Excel based tool/(this may be in MS Excel or any other user-friendly format	**0.2**
8. Awareness and information transfer session to NCPC staff and other interested stakeholders		
Expected Working Days		**21**

5 FUNCTIONAL EVALUATION CRITERIA

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

FUNCTIONAL EVALUATION CRITERIA

	Criteria	**Weighting**
1	Qualifications, skills, and experience of the technical expert	50%
2	Approach & Methodology	20%

3	Project plan	15%
4	Portfolio of evidence	10%
5	Extra credit awarded for unique ideas	5%

Minimum required score is **70%**

5.2 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.

5.3 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 location; and
- Does not have 3 years or more relevant experience in Energy system optimization (ESO) and not a UNIDO compressed air system optimization expert/training.

7 NATIONAL TREASURY CENTRAL SUPPLIER DATABASE (CSD) 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 (SANAS approved) 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:

- All proposals must be submitted to tender@csir.co.za
- The title and the RFP number must be clearly stipulated on the subject.
- Mail size is 25MB, send multiple emails when exceeded.

9 TENDER PROGRAMME

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

• Issue of tender documents:	26 November 2021
• Last date for submission of queries:	03 December 2021
• Closing / submission Date:	17 December 2021
• Estimated contract duration (in months/years) :	2 months

10 SUBMISSION OF PROPOSALS

10.1 Proposals must consist of two parts, each of which is placed in a separate sealed package clearly marked:

PART 1: Technical Proposal: RFP No.: 982/17/12 2021

PART 2: Pricing Proposal, B-BBEE and other Mandatory Documentation:
RFP No.: 982/17/12/ 2021

Proposals submitted by companies must be signed by a person or persons duly authorised.

10.2 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 address mentioned above no later than the closing date of 14 December 2021during 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 place, 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 the CSIR's tender website. 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 982/17 /12/2021 - The provision of services to develop a compressed air system

scoping tool to analyse, assess and evaluate opportunities for energy savings through control optimization to 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 One electronic copy (email only) of each proposal (Technical and Financial) must be submitted.

21.3 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.

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.

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 Scoring sheet used for the evaluation of functional criteria

Competence	Criterion	Key Aspects of Criterion	Points
Qualifications, skills and experience of technical expert (50%)	**Qualifications: (20%)** · Technical expert must have a minimum of Bachelor's degree/ National Diploma in Engineering, Environment, Natural Science · Additional courses/knowledge and/or certifications in Energy, Resource Efficiency and/or Sustainability, MS Excel, Research Techniques and Methodologies etc. Copies of certificates must be attached to the proposal as proof, failure to attach, bidders will forfeit points.	Bachelor's Degree/National Diploma in Engineering, Environment, Natural Science AND 2 or more of the following and/or similar: CEM, CMVP, UNIDO Expert in any ESO discipline, EnMS expert, RECP Expert	10
		Bachelor's Degree/National Diploma in Engineering, Environment, Natural Science, AND any 1 or more of the following and/or similar: CEM, CMVP, UNIDO Expert in any ESO discipline, EnMS expert, RECP Expert	5
		No Bachelor's Degree/National Diploma with no additional qualifications or courses in energy, resource efficiency and/or sustainability	1
	Skills (10%) Technical Expert must possess good research skills and be adequately skilled in MS Excel(good-excellent) Provide details of research undertaken previously	Highly skilled at research (quantitative and/or qualitative)- evidence of past research studies to be provided Highly proficient in MS Excel, having developed detailed analysis and spreadsheet tools with built-in macros, mathematical formulas, conditional formatting, pivot tables, The bidder should be able to develop statistical models i.e., regression model and the reviewer will look for that and other quantitative methods i.e., questionaries, sampling techniques.	10
		Moderately skilled at research (quantitative and/or qualitative)- evidence to be provided Above average proficiency in MS Excel, having developed detailed analysis and spreadsheet tools with built-in macros, mathematical formulas, conditional formatting, pivot tables (The bidder should be able to develop statistical models i.e., regression model and the reviewer will look for that as minimum.	5

		Little to no research previously undertaken Basic proficiency in MS Excel, Little to no proof of regression model development experience.	1
	Experience (20%) Technical expert - number of years of practical experience in Compressed air system optimization (CASO) assessment or audits/implementation projects Brief CV must be attached to the technical proposal as proof.	5-10 years practical working experience in key industries/projects (including energy efficiency, Compressed air system optimization (CASO) assessment or audits/implementation projects.	10
		3-5 years practical working experience in key industries/projects (including energy efficiency, Compressed air system optimization (CASO) assessment or audits/implementation projects.	5
		Under 3 years of practical working experience in key industries/projects (including energy efficiency, Compressed air system optimization (CASO) assessment or audits/implementation projects.	1
Approach & Methodology [20%]	Clearly defined and detailed methodology.	Detailed and well-articulated methodology which described the approach that the bidder will use to implement this project. The methodology must is clear, practical, and structured. It must also be in line with the scope of work	10
		The approach is generic and not tailored to address the specific project objectives and requirements. The approach does not adequately deal with the critical characteristics of the Contract projects.	5
		The technical approach and / or methodology are poor / is unlikely to satisfy project objectives or requirements. The Tenderer has misunderstood certain aspects of the Scope of Work and does not deal with the critical aspects of the Contract projects.	1
Project plan	The proposed concept of the proposal and the implementation plan must be relevant, practical and within scope.	The proposal and project plan are very clear, offers a good solution and addresses all of the project's requirements. The implementation plan is in sync with the project's scope and timelines.	10
[15%]		Proposal and implementation plan have been articulated but does not address all	5

		areas adequately. The level of details covered is inadequate.	
		The proposal and implementation plan lacks specifications, and the proposed timelines are not in line with the project's deadlines.	3
		Proposal out of sync with the project's scope of work.	1
Portfolio of evidence 10%	Portfolio of evidence for examples previously managed and similar projects.	≥3 years working experience + 3 examples of projects with similar size and budget or more.	10
		≥2 years working experience + 1 examples of projects with similar size and budget.	5
		1 years working experience + 0 examples of projects with similar size and budget.	1
Extra credit awarded for unique ideas 5%	Extra credit for unique idea/s that meet and exceed the stipulated deliverables	Detailed account of uniquely packaged ideas that offer additional value to the target audience whilst remaining firmly within the project scoping framework.	10
		Additional ideas provided but lacks in detail and/or uniqueness	5
		No additional or unique ideas presented as part of proposal	1