



SCOPE OF SERVICES

THE APPOINTMENT OF A PROFESSIONAL SERVICE PROVIDER TO PROVIDE AIR QUALITY MONITORING AND REPORTING FOR THE SANPC REFINERY SITE FOR A PERIOD OF 36 MONTHS.

1. BACKGROUND

CEF SOC Ltd (**CEF**) is a Schedule 2 state owned diversified energy company reporting to the Department of Mineral and Petroleum Resources (DMPR). CEF's mandate is to contribute to the security of energy supply of South Africa and the Region through exploration, acquisition, development, marketing and strategic partnership, activities in renewables and liquids fuels storage. Its mandate is derived from the CEF Act (No 38 of 1977) and the Ministerial directives issued thereafter.

CEF has recently bought the SAPREF Refinery Precinct Asset from Shell and BP (SAPREF), with the completion of the assets transferred on 01 December 2024 and now known as the **SANPC Refinery**.

CEF requires the services of an air quality consultant to conduct air quality monitoring on the refinery site and other assessments and reporting relating to air quality matters as prescribed by the air quality license and or other requirements.

The services of the consultant will be required for a period of three (3) years.

2. DELIVERABLES

The services will include the following:

2.1. PASSIVE RADIELLO SAMPLING

- Conduct passive radiello sampling for Volatile Organic Compounds (VOC's) compounds in the ambient air on a monthly basis.

2.1.1. The sampling is to be carried out as follows:

- BTEX passive samplers from Radiello need to be deployed at five (5) sites. The passive sampler is to consist of an adsorbing cartridge inside a cylindrical diffusive body with vertical mounting and supporting plates, housed in a mountable shelter.

There are five monitoring points, namely:

Monitoring Sites	Description	GPS Coordinates (Decimal Degrees)
Site 1	Car Park – At Refinery	-29.976830°, 30.967503°
Site 2	Umlaas Canal	-29.964367°, 30.969515°
Site 3	Opposite storage tank farm gate	-29.982113°, 30.957414°
Site 4	West of SANPC Refinery	-29.977752°, 30.956762°
Site 5	Athlone Park	-30.011409°, 30.923614°



- (Sample Houses) - The shelter is currently attached to a pole structure 2 to 3 meters above ground level and in a location that is free from public interference.
- At deployment, each sampler is to be labelled with the date and time of commencement of sampling. The sampler must also be labelled at collection with the termination date and time of sampling.
- For quality control and assurances, a blank and a duplicate sample must also be deployed to provide a zero check and analytical precision check
- After collection, the sampler must be kept in the sampling tube and transported in a cooler box at between 5°C and 20°C to the laboratory.
- A total of seven (7) BTEX passive samplers are to be deployed and analysed every sampling run.

2.2.1. Quality Assurance / Quality Control

The two measures should be used for QA/QC zero and precision checks include the following:

1. Keeping one cartridge in its tube for the duration of sampling to assess the sampler blank value.
2. Deploying a duplicate passive sampler to determine the precision of the sampling method.

2.2.2. Sampling Timeframe

The radiello samples are required to be placed at the different sampling points for a period of two weeks. The next round of samples should be replaced upon retrieval of the initial set of samples.

Please note that this sampling period may change to a four (4) week period.

2.2.3. Parameters that are required to be monitored

- Volatile Organic Compounds (VOC's)

2.2.4. Despatch of Samples to Laboratory

- The consultant will be responsible to dispatch the samples to the Laboratory.
- To record the times and sample numbers onto a template and provide this to the Laboratory.
- The time log sheet to be provided to SANPC for record purposes.

2.2.5. Analysis of samples

- The analytical method of thermal desorption is to be used to measure the concentration of the pollutants.
- Analysis is required to be done by a SANAS accredited laboratory.

2.2.6. Consumables

- Supply of air quality sampling houses as and when required
- White diffusive bodies used for VOC's cartridges are to be changed over at least every 3-4 months or as and when required. The same diffusive bodies are too be kept for use for SANPC Refinery only, and washed and reused as practical, depending on condition.
- Radiello plates are to be changed only when the need arises in instances that they are broken. Costs for these will be once off from start of the sampling campaign and any additional costs will be apply as per the replacement of the plates when needed.

2.2.7. Reporting:

- Interpret and report on air quality sampling data obtained through the passive radiello sampling method.
- a) Monthly:
 - A monthly summary report with regards to the results received on the analysis conducted is then required. This should include the results commuted into a tabular format and corresponding graphs.
 - Meteorological conditions to be reported with the BTEX monitoring results.
 - Monthly report to be completed and emailed to SANPC atleast two (2) weeks after completion of the sampling event for the month in review.
 - Excel spreadsheet Database with results to be provided to SANPC
- b) Annual:
 - An annual report for the calendar year is required as per the AEL.
 - Report to be submitted to SANPC within the 2nd week of February to allow time for review and finalisation before submission to the licensing authority by the 28 February of each year.

2.2. TANK EMISSION INVENTORY AND NAEIS REPORTING

The DFFE published a notice No. 4493 in the Government Gazette No. 50284 on 8 March 2024 regarding a manual process for reporting atmospheric emissions for the calendar years 2024 to 2026.

The following is required:

- Tank Modelling for each year and subsequent emission inventory reports is required to be compiled
- Manual reporting as per the requirements of NAEIS and or online report as and when the system becomes available.

Methodology:

Tank modelling to be completed using the TANK MODEL software. The Tank information data is to be entered into Tank Model 4.0. database, which will be used for emission calculations and reporting for NAEIS.

Reporting Timeframe:

Manual reporting to be completed as per Gazette 50284 latest by the 30 June of each year.

2.3. GHG EMISSION INVENTORY AND SAGERS REPORTING

GHG emissions is required to be reported annually as per the GHG regulations, to the South African Greenhouse Gas Reporting System (SAGERS).

Reporting Timeline:

The submission to SAGERS or Manual submission must be made before 31 March of each year or as per the timeframe dictated by the Department.

Methodology:

- GHG calculations as required by the National Environment Management: Air Quality Act, 2004, National Emission GHG Emission reporting regulations, Gazette number: 40762, and as amended.
- Tools for calculations and requirements from the GHG Department.
- Technical Guidelines for Monitoring, Reporting and Verification GHG Emissions by Industry, April 2017 by DFFE.

2.4. ODOUR IMPACT REPORT:

- An update of existing Odour Management Plan is required.

2.5. FUGITIVE EMISSION / LDAR MANAGEMENT PLAN:

The site has an existing LDAR plan to which is required to be updated in line with the ownership of SANPC. Essentially this will be an update and review of the plan to include the following below:

- The fugitive emissions management plan should identify all sources of fugitive emissions and measures that will be implemented to address the fugitive sources. The plan must include detailed methodologies, timeframes for implementation, assessment of efficiency and regular reporting criteria as will be applicable to current site activities. **Note: The refinery is currently in park mode.**

2.6. STORAGE TANKS INTEGRITY MANAGEMENT PLAN

A Storage Tanks Integrity Management Plan is required to be developed in line with the AEL requirements. All data that will be acquired by GHG inventory, tank modelling and inventory can be used to compile/ assess the requirements for the tanks integrity management plan.

3. PROJECT TIMELINES

The service provider will enter into an SLA with CEF for **a period of three (3) years**

4. PRICING**4.1. General****Direct Reimbursable Costs**

The consultant should provide an indicative total figure for the reimbursable element and provide a description and unit cost for expenses. All costs not so itemized shall be deemed to be covered by the consultancy fee.

Only actual costs supported by invoices and/or receipts, with no mark-up, will be reimbursed.

The cost estimates are to be presented in the format as described below.

4.2. Detailed Sample Price

Item	Unit	Rate (Rands)	Quantity per year	Total (Rands)
Radiello Sampling				
Monitoring equipment (Radiello cartridges)	Per sampling event		168	
Monitoring equipment (Diffusive Bodies)	Every 4 months change or as needed		84	
Monitoring equipment (Plates)	Every Year or as needed		16	
Sample preparation and Field Work	Per hour		144	
Analysis	Per sample		168	
Reporting	Per Hour		96	
Travel to and from the Refinery Site	Per km per radiello sampling Trip		2400	
Annual REPORTING: NAEIS / AEL / GHG				
NAEIS – Manual Capture	Per hour		24	
Annual AEL Report	Per hour		10	
Review	Per hour		1	
GHG emission Calculations	Per hour		9	
GHG Reporting – Manual / Online Capture	Per hour		5	
Emission Inventory				
TANKS modelling	Per hour		12	
Review	Per hour		1	

Item	Unit	Rate (Rands)	Quantity per year	Total (Rands)
Emission inventory report	Per hour		8	
Review	Per hour		1	
LDAR/ Fugitive Emission Plan				
Assessment Review of Data / Information	Per Hour		8	
Report	Per hour		16	
Storage Tank Integrity Management Plan				
Assessment Review of Data / Information	Per Hour		8	
Report	Per hour		16	
Review	Per hour		1	
Odour Management Plan				
Update Existing Odour Management Plan	Per hour		8	
Sampling houses	Per house		10	
YEAR 1 - Total (VAT excl)				
YEAR 2 - Total (VAT excl)				
YEAR 3 - Total (VAT excl)				
YEAR 1 - Total (VAT incl)				
YEAR 2 - Total (VAT incl)				
YEAR 3 - Total (VAT incl)				

5. EVALUATION CRITERIA

5.1 Phase 1

Mandatory Requirements

At this phase, bidder's responses are reviewed against the below Mandatory Requirements. **Failure to comply with any of the Mandatory Requirements will lead to the bidder being disqualified and not be considered for further evaluation on Technical Requirements.**

5.1.1 MANDATORY	Comply	Not Comply
The project manager (team leader) must have a valid BSc Degree (Hons) specializing in Meteorology (NQF Level 8).		

Submit a copy of a valid copy of the Degree.		
Substantiate / Comments		

5.2 Phase 2

Technical evaluation

Bidders will be evaluated according to the below technical evaluation criteria. Minimum Technical Threshold is **70%**. It must be noted that if the Bidder does not meet the **70%** minimum threshold, the bidder will be disqualified and not be evaluated further.

5.2.1 EXPERIENCE OF THE COMPANY

The bidder must have **experience in air quality monitoring and assessments** in the last 10 years.

The bidder must provide reference letters from clients they implemented services for in the past.

The reference letters must be Signed and be on a client's letterhead and include the client's name and client's contact details.

Note: the following scoring matrix will be used to evaluate this criteria:

Evaluation Criteria	Document as Evidence	Score	Weighting %
5 or more relevant references letters	Signed reference letters on client letter head and contactable details	5	40%
4 relevant reference letters		4	
3 relevant reference letters		3	
2 relevant reference letters		2	
1 relevant transaction		1	
0 relevant transaction		0	

5.2.2 EXPERIENCE OF THE TEAM

The bidder's support team must have a combined average of **5 years' experience** in conducting air quality monitoring and assessments as listed in the deliverables of the scope of work.

The bidder must submit CVs of the proposed team that will be part of this proposal as follows:

The names of the support team and CVs of the support team must clearly highlight their qualifications, number of years of working experience, areas of experience/ competencies relevant to the tasks and objectives of this project as outlined in the scope of work.

Note: the following scoring matrix will be used to evaluate this criteria:

Evaluation Criteria	Document as Evidence	Score	Weighting %
5 or more years' experience in projects relating to air quality monitoring and assessments.	CV's of the Proposed team clearly listing the name of clients and work previously completed	5	30%
4 years' experience in projects relating to air quality monitoring and assessments.		4	
3 years' experience in projects relating to air quality monitoring and assessments.		3	
2 years' experience in projects relating to air quality monitoring and assessments.		2	
1 year experience in projects relating to air quality monitoring and assessments.		1	
Less than 1 years or no experience		0	

5.2.3 EXPERIENCE OF THE TEAM LEADER

The bidders Team Leader assigned to the project must have experience in **5 projects** in conducting air quality monitoring and assessments **in a petroleum refinery site**.

The bidders must, as part of its proposal, submit the following:

- Name of the team leader, CV of the team leader and the CV must clearly highlight the team leaders number of years of working experience, areas of experience/ competencies relevant to the tasks and objectives of this project as outlined in the scope of work.

Note: the following scoring matrix will be used to evaluate this criterion:

Evaluation Criteria	Document as Evidence	Score	Weighting %
5 or more projects' relating to air quality monitoring and assessments in a petroleum refinery site	CV of the Proposed team leader clearly listing the name of clients and work previously completed	5	30%
4 projects relating to air quality monitoring and assessments in a petroleum refinery site		4	
3 projects relating to air quality monitoring and assessments in a petroleum refinery site		3	
2 projects relating to air quality monitoring and assessments in a petroleum refinery site		2	
1 project relating to air quality monitoring and assessments. in a petroleum refinery site		1	
Less than 1 years or no experience		0	

PHASE 3: COMMERCIAL EVALUATION

CEF (SOC) Ltd will utilise the following formula in its evaluation of Price offers:

[Weighted score 80 points]

$$PS = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where:

Ps = Score for the Tender under consideration

Pt = Price of Tender under consideration

Pmin = Price of lowest acceptable Tender

Preference points/specific goals criteria

[Weighted score 20 points]

Specific goals / Preference Points Claim

Evaluation Criteria	Final Weighted Scores
Price	80
Specific goals	20
TOTAL SCORE:	100



A maximum of 20 points will be awarded to a tenderer for specific goals specified for the tender/RFQ as follows:

Specific goals	Points
Historically disadvantaged individual (HDI)	
Enterprises with ownership of 51% or more by person/s who are black	10
Enterprises with ownership of 51% or more by person/s who are women	5
Enterprises with ownership of 51% or more by person/s who are youth	3
Enterprise with ownership of 10% or more by person/s with disability	2
Total	20

- Tenders must submit their B_BBEE certificate issued by an authorized body or person or a B-BBEE sworn affidavit to claim preference points.
- The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.
- The contract must be awarded to the tenderer scoring the highest points.
- If two or more tenders score an equal total number of points, the contract must be awarded to the tenderer that scored the highest points for specific goals, and if two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lot.