



Request for Quotation (RFQ) for the supply Resource efficiency and cleaner production assessment at Fusion Leather World to the CSIR

Date of issue	Tuesday, 10 August 2021
Closing Date and Time	Tuesday, 24 August 2021 at 16:30
RFQ Number	5734/24/08/2021
Contact details	For submission of quotations or any other enquiries: tender@csir.co.za
Email size	The email and file sizes should not exceed a total of 25mb per email.

1 INVITATION FOR QUOTATION

Quotations are hereby invited for service providers to conduct Resource Efficiency and Cleaner Production (RECP) Assessment at Fusion Leather World in Atlantis Industrial, Cape Town.

2 QUOTATION REQUIREMENTS

The aim of this project is to conduct the following assessments:

2.1. RECP assessment with a strong focus on the following thematic areas:

1. Water use and management
2. Solid waste generation and wastewater management
3. Material utilization
4. Determine best practices on water use, wastewater generation and management

2.2. General Energy assessment focusing on the following:

1. Overall energy use
2. Identify opportunities for systems optimization within the facility.
3. Alternative use of energy (renewable energy opportunities)

NB: Please provide quotes for each focus area, however only one quote will be considered/awarded to the successful and preferred service provider. Service providers are to quote as per area of expertise and competence.

3 COMPANY BACKGROUND

Fusion Leather World is a Cape Town based company in Atlantis Industrial.

The company has a staff compliment of 116 full time and 0 part time [97 factory workers and 19 office staff].

Only one shift per day with the following daily operating hours.

Mo – Thurs: 07:30am – 4:30 pm

Fri: 07:30 am - 03:00 pm

Sat: 07:30 am - 03:00 pm

Sunday and Public Holiday: closed

The company is in the leather processing sector (tannery). The company has two leather processes namely endura leather (crust) followed by a foil laminating onto the crust and the side leather (wet blue) and then dyeing process takes place. Please note there is no raw to wet blue processing that takes place on side. The company sources out the wet blue leather.

The company does not have export market, but they do import foils from the UK, China and Brazil. They also import certain quantities of crust and chemicals from Brazil.

The electricity consumption is relatively high. The company also uses other energy source (fossil fuels) like petrol, diesel and HFO for different uses (Bakkies, trucks, forklifts, and boiler) there is also a relative amount of water usage and wastewater generated on site. The company has a waste treatment plant where all the wastewater (washed water and dyes) is captured, chemically treated, and then discharged into the municipal drain. The effluent is monitored daily at discharge point for Ph, conductivity, and TDS. The company also generates a significant amount of solid waste from the different stages of the production process and some from the wastewater treatment plant. This waste is kept in a skip, removed & disposed once a month to the landfill site. The wet blue waste (trimmings) which is the most significant are stacked neatly and sold as a source of

generating income to the company. An average of **44 593.6 Kg** solid waste and **5 514.8 Kg** of wet blue trimming recorded respectively for the months of Jan – May 2021.

4 SUMMARY OF PRODUCTION DATA

4.1. PRODUCTION DATA

2020/2021	Production volumes (dm2)
April	0
May	203 287
June	4 236 471
July	6 027 551
August	4 405 809
September	4 426 010
October	6 911 095
November	7 206 636
December	4 092 968
January	4 537 123
February	3 166 716
March	6 986 909
April	6 876 416
May	Not finalised yet

5 UTILITY CONSUMPTION AND COST

5.1. ELECTRICITY

2020/2021	kWh	MD (Kva)	Cost, R
April	18120	313.805	105 412.04
May	48210	556.708	200 894.04
June	88050	585	256 854.02
July	86250	593.010	259 506.27
August	70240	574.129	237 811.79
September	84500	551.515	245 776.86
October	84940	527.296	239 465.19
November	88350	519.773	240 587.32
December	27600	493.316	191573.89
January	37923	-	39 631.71
February	76535.5	481.508	217 514.45
March	85405.5	480.779	226 518.28
April	75497	484.313	217 419.82
May	Not available yet	Not available yet	Not available yet
TOTAL	871 621 kWh	6161.152	R2 678 965.68

*NB Demand charges R/kVA = R 3.07
Energy Cost (c/kWh) =

5.2. FOSSIL FUELS

2020/2021	Fuel Type Petrol (Bantam bakkie): Tons	Total Cost, R
April	Lock down	Lock down
May	Lock down	Lock down
June	0	0
July	0.066857	979.48
August	0.146706	2155.56
September	0.085419	1 256.78
October	0.077044	1 121.68
November	0.120487	1 711.53
December	0.070774	989.48
January	0.071286	1 025.65
February	0.167118	2 507.92
March	0.115192	1 828.22
April	0.081965	1 383.29
May	0.081972	1 375.89

2020/2021	Fuel Type : Petrol Units: Rand/litre	Total Cost, R
April	Lock down	Lock down
May	Lock down	Lock down
June	0	0
July	R14.42	979.48
August	R14.47	2155.56
September	R14.48	1 256.78
October	R14.16	1 121.68
November	R13.89	1 711.53
December	R13.76	989.48
January	R14.16	1 025.65
February	R14.97	2 507.92
March	R15.62	1 828.22
April	R16.61	1 383.29
May	R16.52	1 375.89
TOTAL	R 163.06	16 335.48

2020/2021	Fuel Type Diesel (forklift and Hyundai truck): Tons	Total Cost, R
April	Lock down	Lock down
May	Lock down	Lock down
June	0	0
July	1.084174	15039.89
August	0.711654	10170.28
September	0.793661	11234.38
October	0.990390	13378.52
November	0.588062	7874.01
December	0.435130	5848.55
January	0.789573	11021.65
February	0.798045	11552.83
March	0.907698	13686.36
April	0.732418	11531.49
May	0.664309	10289.82

2020/2021	Fuel Type : Diesel Units: Rand/ litre	Total Cost, R
April	Lock down	Lock down
May	Lock down	Lock down
June	0	0
July	R15.16	15039.89
August	R14.10	10170.28
September	R13.94	11234.38
October	R13.01	13378.52
November	R13.18	7874.01
December	R13.15	5848.55
January	R13.69	11021.65
February	R14.28	11552.83
March	R14.84	13686.36
April	R15.46	11531.49
May	R15.16	10289.82
TOTAL	R155.97	R121 627.78

2020/2021	Fuel Type HFO : Tons	Total Cost, R
April	Lock down	Lock down
May	Lock down	Lock down
June	24.19	160 015.80
July	24.32	160 868.61
August	11.98	79 989.75
September	24.02	159 172.76
October	24.03	153 595.51
November	24.05	148 833.51
December	6.03	37 907.56
January	11.95	77 523.38
February	23.92	155 040.38
March	18.03	120 689.26
April	18.06	123 088.24
May	12.03	80 903.02

2020/2021	Fuel Type : HFO Units: Rand/ litre	Total Cost, R
April	Lock down	Lock down
May	Lock down	Lock down
June	R 6.51	160 015.80
July	R 6.51	160 868.61
August	R 6.57	79 989.75
September	R 6.52	159 172.76
October	R 6.29	153 595.51
November	R 6.09	148 833.51
December	R 6.19	37 907.56
January	R 6.38	77 523.38
February	R 6.38	155 040.38
March	R 6.59	120 689.26
April	R 6.71	123 088.24
May	R 6.62	80 903.02
TOTAL	R 77.36	R1 457 627.78

6 MOTORS, PUMPS AND FANS

The company has a wide variation of motors of approximately 40 in total, ranging from 0.15 – 50 kW rating. Most of these motors are enclosed into the different machines. There are also a variety of fans (6) ranging from 2 – 6kW rating and approximately 3 pumps ranging from 7.5 – 10 kW rating.

7 LIGHTING

<u>Location</u>	<u>Light Type</u>	<u>kW rating</u>	<u>Amount</u>	<u>Total kW</u>	<u>Comments</u>
Warehouse 1	Round/circular shaped Fluorescent	0.2	21	4.2	Generally good light inside this area. There are transparent sheets on the side of the warehouse walls, however, there is room for more of these transparent sheets to be considered/fitted.
	Linear/Tubular Fluorescent	0.058	6	0.348	
Warehouse 2	High Bay Lights	0.45	20	9	The Maintenance Manager is interested in fitting this section of the factory with the 180 W rated LED's. Currently there is only 1 LED fitted. A total of 56 fluorescent casings each containing 2 fluorescent tubes. Thus 130 tubes
	LED	0.18	1	0.18	
	Linear/Tubular Fluorescent	0.058	130	7.54	
Laboratory - Water Testing	Linear/Tubular Fluorescent	0.058	8	0.464	This is an estimate purely as this area was not surveyed for lights
Paint prep/spraying Department	Linear/Tubular Fluorescent	0.058	8	0.464	This is an estimate purely as this area was not surveyed for lights
Offices	Offices incl Boardroom and Reception Area	0.058	26	1.508	This is an estimate purely as the office block was not surveyed for lights during the quick scan site visit. Estimate a total of 10 offices, 1 reception area and 1 boardroom and 1 kitchen. Thus 13 in total. Each casing contains 2 fluorescent tubes thus 26 tubes
Toilets- Office Block	1 toilet - male	0.058	2	0.116	This is an estimate purely as the office block was not surveyed for lights during quick scan site visit.
	1 toilet - female	0.058	2	0.116	
	1 toilet - Director	0.058	2	0.116	
Toilets-Factory	Ladies toilets	0.058	10	0.58	5 Light casings in toilet. Each casing contains 2 fluorescent tubes. Thus 10 fluorescent tubes in total
	Gents toilets	0.058	10	0.58	5 Light casings in toilet. Each casing contains 2 fluorescent tubes. Thus 10 fluorescent tubes in total
Outside perimeter	LED's	0.1	4	0.4	This is an estimate purely as the office block was not surveyed for lights during quick scan site visit.
TOTAL		1.51	250	25.61	

8 WATER & EFFLUENT

2020/2021	Water, m³	Cost, R	Sewerage Effluent, m³	Cost, R
April	67.273	7756.18	0	0
May	133	4883.56	0	0
June	340.28	10899.23	0	0
July	380	2494.54	0	1329.46
August	148	5530.18		700.66
September	447	14063.64	177.213	1090.69
October	531	16037.86	177.213	1090.69
November	341	10526.90	313.4	1206.33
December	216	7146.90	98.9	2402.64
January	1027	14015.06	98.9	2402.64
February	497	14745.14	0	0
March	380	11581.46	150.7	2059.34
April	380	11581.46	150.7	2059.34
May	Not available yet	Not available yet	Not available yet	Not available yet
TOTAL	4887.553	131262.11	1167.026	14341.79

9 EVALUATION CRITERIA

- 9.1 Selection of suppliers will be based on the 80/20 preference point system.
- 9.2 Indicate CSD number (National Treasury Central Supplier Database) on quotation. If not registered yet on CSD, use www.csd.gov.za to register.
- 9.3 No order will be issued or no contract will be signed without a valid CSD number.

10 PRICING QUOTATION

- 10.1 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.
- 10.2 Price should include additional cost elements such as freight, insurance until acceptance, duty where applicable, etc.
- 10.3 Payment will be according to the CSIR Payment Terms and Conditions.

11 OTHER TERMS AND CONDITIONS

- 11.1 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 CSIR employee or its representatives. Such an act shall constitute a material breach of the Agreement and the CSIR shall be entitled to terminate the Agreement forthwith, without prejudice to any of its rights.
- 11.2 A validity period of 90 days will apply to all quotations except where indicated differently on the quote.
- 12 Bids must be submitted in PDF. Any bids submitted using cloud platforms, i.e., we-transfer, google-drive, drop box etc, will not be considered for evaluation.

13 No goods and/or services should be delivered to the CSIR without an official CSIR Purchase order. CSIR purchase order number must be quoted on the invoice. Invoices without CSIR purchase order numbers will be returned to supplier.

14 Note: This is not a Purchase Order.

DECLARATION BY TENDERER

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

RFQ No: 5734/24/08/2021

I hereby undertake to render services described in the attached tendering documents to CSIR in accordance with the requirements and task directives / quotation specifications stipulated in RFQ 5734/24/08/2021 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 quotation.

I confirm that I am satisfied with regards to the correctness and validity of my quotation; that the price(s) and rate(s) quoted cover all the services specified in the quotation 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 quotation as the principal liable for the due fulfilment of this quotation.

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

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 quotation.

NAME (PRINT)
CAPACITY
SIGNATURE
NAME OF FIRM
DATE

WITNESSES	
1
2
DATE:	