



## Premium Eco Friendly Fuel Solutions

# Proposal Prepared for Liviero Civils (Pty) Ltd

Submitted by:  
Centron Energy South Africa (Centron SA)  
Mr. Steve Mummery  
Head Office: Bldng 2, Woodlands Country Estate,  
Woodlands Drive, Woodmead  
Contact: 011 258 8713 / 078 348 0415  
Email: [steve@centron.co.za](mailto:steve@centron.co.za)

**CENTRON**  
**ENERGY**  
TOMORROW'S FUEL TECHNOLOGY TODAY



**Executive Summary/Introduction and Background .....1**

**Understanding Your Requirements.....2**

**Safety In Use .....3**

**Emission Challenges .....4**

**Liviero Civils Personnel Remarks and Observations/Conclusion .....4**



## 1. Executive Summary

- 1.1 This proposal sets out the way forward for the LIVIERO CIVILS to impliment Centron in reducing fuel consumption and toxic emissions. As Centron Energy SA is convinced that its fuel enhancer is the best solution available in the market we offer a no risk solution to the LIVIERO CIVILS for implementing our fuel enhancer.
- 1.2 Our proposal to the LIVIERO CIVILS is that Centron SA will supply product at a cost of R100 per litre The amount of product needed to be established between LIVIERO CIVILS and Centron. Please see financial proposal under section 4.
- 1.3 The results of the fuel/ emission reductions will be supervised and monitored by both Centron SA and LIVIERO CIVILS officials.
- 1.4 The Centron implementing protocol will be strictly adhered to by the LIVIERO CIVILS.
- 1.4 The Annexures hereto furnish in detail how Centron works and the scientific aspects thereof.

## 2. Introduction and Background

The contents of this proposal are private and confidential and for the LIVIERO CIVILS's use only.

Other similar products have had mixed results, with many consumers having incurred substantial losses. This obviously presents Centron with significant challenges in the face of strong skepticism and resistance from especially the technical fraternity. With a 13 year history of successful applications and a zero claims history, Centron Fuel Additive has a proven track record and to provide further peace of mind to the client is underwritten in the amount of R20 million rand in the event of causing damage to any engines and consequential losses ie downtime.

Centron Fuel Enhancer has been tested worldwide by numerous third parties including SABS in South Africa, Stevenson's Lab in Australia, US EPA etc.

### The major benefits of using Centron Fuel Additive include:

1. Reduce fuel consumption by 5-15%; in some cases substantially more. This translates directly to savings in operating costs and filters down directly to the bottom-line;
2. Reduce emissions by up to 50%, thus contributing to environmental friendly operating conditions;
3. Prolongs asset life. Centron Fuel Additive contains anti-algae, anti bacterial and water emulsifier properties and acts as a conditioner and detergent for fuel tanks and lines, fuel pump cleansers and lubricators, injector cleanser, decarbonises the engine and is a phenomenal upper cylinder lubricity agent.

# Understanding Your Requirements

We understand that the LIVIERO CIVILS takes emission reduction very seriously and together with Centron's fuel saving capability makes Centron a complete winning solution. We also understand that the cost of Diesel is a substantial portion of the business of the LIVIERO CIVILS and reducing the Diesel cost has a direct impact on the LIVIERO CIVILS's bottom line.

As such Centron can add great value to LIVIERO CIVILS's Commercial, Safety, Health and Environmental performance.

## 4. Financial Proposal

### TYPICAL RETURN ON INVESTMENT

Assuming LIVIERO CIVILS uses 9,6 million litres of Diesel per annum at a cost of R12.00 per litre, Centron is capable of returning a 100% plus return on investment, meaning that Centron will add to the bottom line profit of LIVIERO CIVILS, enhance its sustainability report and increase the asset value and of the vehicles as a result of cleaner engines. Below is a typical scenario of how Centron can add to the bottom line of LIVIERO CIVILS at savings of 8.85% (LIVIERO CIVILS in house Centron test), 10% and 15.8%.

Centron Fuel Savings and CO2 Reduction Calculator: Liviero			
<b>Estimated Annual Fuel Usage in Litres before Centron</b>	<b>9 600 000</b>	<b>9 600 000</b>	<b>9 600 000</b>
Fuel Savings %	8.85%	10%	15.8%
Annual Litres of Fuel Saved	849 600	960 000	1 516 800
Cost of Fuel per Litre	R 12	R 12	R 12
<b>Annual Fuel Cost Savings</b>	<b>R 10 195 200</b>	<b>R 11 520 000</b>	<b>R 18 201 600</b>
Annual Fuel Usage in Litres After Centron	R 8 750 400	R 8 640 000	R 8 083 200
Total Centron Required in Litres	R 27 345	R 27 000	R 25 260
Cost of Centron per litre (Rand)	R 100	R 100	R 100
<b>Annual Cost of Centron</b>	<b>R 2 734 500</b>	<b>R 2 700 000</b>	<b>R 2 526 000</b>
Transport Cost	R 120 000	R 120 000	R 120 000
Displacement Fuel Savings (centron litres X fuel price)	R 328 140	R 324 000	R 303 120
<b>Annual Net Cost of Centron</b>	<b>R 2 526 360</b>	<b>R 2 496 000</b>	<b>R 2 342 880</b>
<b>Annual Net Fuel Savings (Rand)</b>	<b>R 7 668 840</b>	<b>R 9 024 000</b>	<b>R 15 858 720</b>
Centron cost per litre of fuel	R 0.32	R 0.32	R 0.32
<b>Breakeven</b>	<b>2.67%</b>	<b>2.67%</b>	<b>2.67%</b>
<b>Financial &amp; Environmental Analysis</b>			
Annual Cost of Fuel Before Centron	R 115 200 000	R 115 200 000	R 115 200 000
Annual Cost of Fuel After Centron	R 107 531 160	R 106 176 000	R 99 341 280
Total Net Fuel Cost Savings (Rand)	R 7 668 840	R 9 024 000	R 15 858 720
<b>Annual CO2 Reduction in Metric Tonnes (2.66kg per litre)</b>	<b>1 921</b>	<b>2 171</b>	<b>3 429</b>
<b>ROI</b>	<b>417%</b>	<b>475%</b>	<b>790%</b>
<b>Expenses</b>			
Automated Dosing System: one (1) time charge	R 250 000	R 250 000	R 250 000
Automated Dosing System: monthly service @ R8000/month	R 96 000	R 96 000	R 96 000
<b>Annual Net Fuel Savings less Expenses: Year one</b>	<b>R 7 322 840</b>	<b>R 8 678 000</b>	<b>R 15 512 720</b>
<b>Annual Net Fuel Savings less Expenses: Year two</b>	<b>R 7 572 840</b>	<b>R 8 928 000</b>	<b>R 15 762 720</b>

### 4.2. Breakeven

The breakeven point where Centron begins to pay for itself is calculated at 2.67% using an estimated cost of R12.00 for fuel and is arrived at as follows; this will improve even further if one takes into account increased asset life and performance, fewer breakdowns, increased uptime, reduced carbon taxes and increased SHEQ performance etc:

Cost of Fuel per Liter	<b>12.00</b>
Cost of Centron per litre of fuel (at R100 per litre of Centron at 3.2 ml per litre of fuel	<b>0.32</b>
Total cost inclusive of Centron	<b>12.32</b>
<b>Breakeven (Cost of centron per litre of fuel/Cost of fuel before Centron)</b>	<b>2.67%</b>

As such the financial proposal is as follows: The Targeted breakeven is 2.67%. If Centron reaches this during the contract period, LIVIERO CIVILS will pay 100% of the cost of the product. The cost of the Product is R100 per litre excluding VAT.

If LIVIERO CIVILS reach for example 2% savings, LIVIERO CIVILS will only be liable to pay 74.91% of the cost of Product i.e. R74.91 Ex Vat (  $2\%/2.67\%*100$ ). Hence the formula for computing the amounts payable to Centron is as follows: (Percentage savings achieved divided by Targeted Breakeven percentage multiplied by cost of product. We are certain that this no risk solution is compelling and will appeal to LIVIERO CIVILS.

### 5. Safety in Use

First and foremost the Centron Additive improves the diesel specification per SANS 342, hence the additive can cause no harm as all it does is converts the standard diesel into a premium one. In that regard please be assured that the additive contains no metals and no alcohol (MSDS attached) and since it does not alter the diesel specification negatively (SABS results attached) no conceivable harm can be caused. However, to give you further peace of mind in the event of failure being attributed to Centron additive we have a comprehensive worldwide policy which will respond accordingly in your favour against unlikely additive related damage and consequential loss ie downtime, inconvenience, loss of productivity etc. We have a 13 year no claim history.

Enclosed please find the MSDS, SABS and Environment Protection Agency Certificate to give you the absolute assurance that LIVIERO CIVILS will be using a premium diesel if treated with Centron leading to improved fuel efficiency, less maintenance and a cleaner and healthier environment.

The fact that Centron has been used worldwide for more than 13 years now covering more than 800 million kilometres with no harm ever caused, may well present Liviero Civils with an opportunity to recognize that treating diesel in an environmentally friendly manner for optimal performance can only benefit LIVIERO CIVILS' Triple Bottom Line.

## 6. Emission Challenges

We understand that Government has set strict targets for emission reductions and WWF actually commended the commitment expressed by President Jacob Zuma to reduce emissions. In a WWF press release it is reported: *“WWF today commended the announcement by South Africa that President Jacob Zuma will attend the UN climate negotiations in Copenhagen and bring with him South Africa's contribution towards the global effort to reduce emissions. The announcement included a timeline for the country's emissions to peak and decline – the first such commitment offered by a major developing nation.”*

As such, all major users of Diesel will be under pressure to reduce emissions. Centron is a safe and cost effective solution for reducing the emissions caused by LIVIERO CIVILS Diesel Equipment. Based on our calculations above Centron could reduce LIVIERO CIVILS carbon emissions by 3429 metric tonnes. As part of our protocol we will measure emissions with EPA approved equipment both before and after Centron. Please refer to 4.1.

Liviero Emission Results (5 Gas)																
Liviero: % Change in Emissions																
EQUIP #	Baseline Emissions (18 March, 2013)					Results Phase Emissions (6 June, 2013)					% Change in Emissions					Opacity (%)**
	HC	CO	CO2	O2	Nox	HC	CO	CO2	O2	Nox	HC	CO	CO2	O2	Nox	
C.T.16	10	0.023	2.69	17.19	136	4	0.001	2.56	19.04	111	-6	-2.689	-0.13	1.85	-25	TBD
C.T.25	6	0.023	2.53	17.38	115	5	0.020	2.54	17.34	128	-1	-2.510	0.01	-0.04	13	TBD
C.T.13	7	0.005	1.29	18.97	122	7	0.002	1.26	18.96	104	0	-1.288	-0.03	-0.01	-18	TBD
C.G.3	12	0.054	4.07	15.07	131	9	0.04	3.84	15.41	143	-3	-4.030	-0.23	0.34	12	TBD
C.G.2	16	0.042	1.87	18.08	401	13	0.040	1.86	18.36	382	-3	-1.830	1.87	0.28	-19	TBD
<b>FLEET AVERAGE</b>	<b>10.20</b>	<b>0.029</b>	<b>2.49</b>	<b>17.34</b>	<b>181.00</b>	<b>7.60</b>	<b>0.02</b>	<b>2.41</b>	<b>17.82</b>	<b>173.60</b>	<b>-25.49%</b>	<b>-29.93%</b>	<b>-3.13%</b>	<b>2.79%</b>	<b>-4.09%</b>	<b>TBD</b>

\*\* Opacity test unit was in for service at time emission readings were taken  
Visually observed significant reduction in black smoke since Centron was implemented

## 7. Remarks and Observations by LIVIERO CIVILS Personnel

Jacques Pienaar (Contracts Manager)

*“Normally after we have started up plant and equipment after a long weekend off, a cloud of black smoke was hanging over the truck yard. I have noticed that this is no more the case after the introduction of Centron.”*

Eddie de Beer (Fuel yard Manager)

*“I have approached the site from a distance one morning and observed that there is no more black smoke hanging around. Even the strong smell of diesel was less as I got closer”.*

Frans Marumo (Plant Foreman)

1. *“Normally on colder days we have difficulty in starting up in the plant and equipment. Start-up is a lot quicker now after the addition of Centron to the diesel fuel. A remarkable improvement.”*
2. *“After the plant eventually started, a black ball of smoke followed first acceleration. The black smoke is visibly a lot less”*
3. *“The engines are running a lot smoother with vibration also reduced”.*
4. *“I have also noticed that the noise from the engines is audibly lower”.*

Quinton Gallon (Technician)

*“I have noticed that the fuel filters show a much lighter colour than before”.*

## 8. CONCLUSION

We trust that this brief has been interpreted accurately and look forward to your response. Should you have any further queries, please do not hesitate to contact us.