

# Taking you further, faster and cleaner

The Greentech company providing next generation, natural solutions, for immediate progression towards carbon neutrality

## Who are SulNOx Group Pic?

SulNOx is a Greentech company which specializes in providing responsible solutions towards the decarbonisation of liquid hydrocarbon fuels.

Our patented fuel conditioners reduce the production of harmful, environmentally damaging emissions whilst also offering significant cost savings.

SulNOx is a UK Public Limited Company, formed in 2012, trading on the Apex segment of the AQSE (Aquis Stock Exchange) growth market.

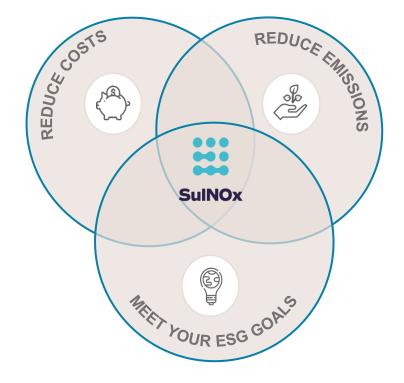


"Using SulNOx drives immediate progress towards achieving carbon neutrality"

## What sets us apart?

SulNOx products are unique and are made only from sustainable, biodegradable ingredients.

By emulsifying water and increasing oxygen availability to the fuel - it burns cleanly and more efficiently.







# The amount of emissions depends on the quality of combustion:

- √ SulNOx increases the amount of oxygen available. to the fuel, promoting cleaner combustion and optimal energy output
- Reduced fossil fuel consumption
- Significant reduction in greenhouse gas emissions, NOx, SOx, CO & CO<sub>2</sub> output
- ✓ Decarbonisation less smoke, soot and harmful particulate matter (PMs)
- √ Improvement in overall air quality (PM10 reduced > 50% and PM2.5 > 60%)

## **Emission reductions – Generator Test**



Pollutant	Emission Reductions	Pollutant	Emission Reductions
Carbon Monoxide	-30%	Nitrogen Dioxide	-23%
Carbon Dioxide	-30%	Oxides of Nitrogen	-20%
Nitric Oxide	-35%	Sulphur Dioxide	-20%

#### Particulate matter reductions:

Emission	Baseline (mg/m <sup>3)</sup>	SulNOx (mg/m³)	Change
PM 10	12.2	5.7	-53%
PM 2.5	10.6	4.1	-61%



# 10% Cost savings using SulNOx:

- √ Reduced fuel consumption ca. 8-10%
- √ Reduction in maintenance costs
- √ Reduction in fuel storage costs

"Combined benefits allow consumers to realize an overall reduction in operating costs by c.10%"



# Improved Engine Performance & Health

- ✓ Detergents and surfactants increase fuel lubricity by 31%\*, reducing engine wear
- Reduced fouling of ignition, diesel filters and fuelling components
- √ Typically an additional 2% savings on top of the fuel

# **V**

## **No Warranty or Compatibility Issues\***

- ✓ Diesel-Certificates-EN-590 and ASTM D975
- ✓ Gasoline-Certificates-EN-228 (E5, E10) and ASTM D4814
- ✓ Biofuels–Certificate-EN-16709 (B20, B30)



\* Certified by Bureau Veritas

## Case Study 1: Haulage - 1.3 million miles over 12 months

Proven savings of >8% from haulage clients. Besblock fleet, including 27 brand new Euro VI trucks, have used SulNOxEco™ Diesel Conditioner in their fuel for 12 months providing "real world" data to support our laboratory test results.

#### **Fuel Savings**

- 741,258 miles @ 8.1 mpg from April 2020 to March 2021 vs. 535,720 miles @ 7.51 mpg from April 2019 to March 2020 → 8% saving
- AdBlue costs reduced due to reduction in NOx production from improved combustion

#### **Particulate Matter Filters**

- PM filters not changed for 12 months and no issues with PM sensors for 12 months (\$470 each) yielding further cost savings
- No limp mode recorded for 12 months, previously a regular monthly occurrence with expensive maintenance and downtime costs

#### **Emissions Reductions**

 CO<sub>2</sub>, particulate matter and other greenhouse gas emissions are all reduced

#### **Transport Manager Feedback**

 Drivers report all trucks running very smoothly and continue to perform well under load



"8% fuel saving and considerably less maintenance & downtime costs whilst also reducing CO2 emissions"

Treated with SulNOx = c. \$135k saving per annum c. \$5.4k per truck, > 30 tones of greenhouse gas reduction per annum

# Case Study 2: **Bus and Coach Operator - E&M Horsburgh**

10,000 miles of regular travel routes in Scotland primarily from Livingston to Edinburgh hospitals using SulNOxEco™ **Diesel Conditioner.** 

Real world variations such as driving conditions, traffic, different drivers etc. evidenced a 9% fuel saving/ increase in economy, from 12.98mpg to 14.16mpg. This is very significant both economically and environmentally and corresponds well with evaluations of other vehicle types.

	Hub Start	Hub End	Miles Travelled	Gallons Taken	Economy mpg
Pre- Treatment	0	5,694	5,694	365	12.98
With Treatment	5,694	15,641	9,948	584	14.16
% Fuel Ed	9%				





- 585 gallons taken would have been 643 gallons taken without the use of SulNOxEco™ Diesel Conditioner
- 58 gallons (9%) of fuel saved in one month
- This would typically save \$500 at today's fuel prices
- Over the course of one year, each bus can therefore be expected to achieve an efficiency saving of \$6,000
- For the entire fleet of 98 vehicles, this will reduce the fuel bill by \$600,000 per annum

"A compelling case for every transport and logistics company"



# Green from Concept to Combustion:

# Nouryon

#### **Guaranteed, Green Manufacturing**

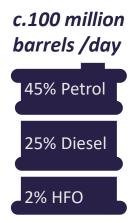
- ✓ Partnered with **EcoVadis Gold rated, Nouryon BV**, a Carlyle Group company, and global specialty chemicals leader to manufacture our products
- ✓ Unlike other fuel additives, SulNOxEco™ Fuel Conditioners are not manufactured from waste refinery products
- ✓ SulNOxEco™ Fuel Conditioners are complimentary to existing emissions reductions technologies and we encourage combinatorial, not competitive approaches
- √ No CAPEX investment required to begin immediate use meaning universal appeal and adoptability e.g.18 manufacturing plants in North America alone



# Why Invest?

Market Opportunity for existing SulNOx products is >70% of every barrel of oil:

 Instant ESG enabler: Every diesel, petrol, heating oil, heavy fuel oil, and biofuel user on the planet can benefit from using SulNOx



- High barriers to entry: Cutting edge ultrasonic technology allows bespoke products and global appeal
- Patented in >70 countries with diversified and significant opportunities in multiple sectors
- New Products for launch and new processes in development including:
  - Oil reclamation and Pyrolysis (plastic / tyre recycling)
  - Novel foods and botanical extracts and
  - Food emulsifiers

# Significant Client Pipeline with near term revenue and commitments:

- c.750 client engagements growing daily including significant, household names and national champions
- >40 sales organisations and introducers operating globally
- High Margin, repeat revenue product for some of the world's biggest hydrocarbon users
- Multiple revenue streams: Available on Amazon by end of February to compliment large corporations

#### Shipping – it only takes 1 adopter...

Fuel savings up to 15% in evaluations

Ship burning 1 metric tonne of fuel per hour treated with SulNOx = \$100,000 saving per vessel, per annum



SulNOx has ongoing trials with a global fleet operator with > 700 ships = \$70,000,000

## SulNOx | The first step to net zero:

"The scientific community has made clear that the scale and speed of necessary action is greater than previously believed. There is little time left...Responding to the climate crisis will require significant short-term global reductions in greenhouse gas emissions"

President Biden

...SulNOx provides an <u>immediate</u> (now in 2021 not 2030), cost saving solution to dramatically reduce  $CO_2$  and other toxic emissions caused by burning hydrocarbon fuels



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#### **Contact us**

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