

Fuel Savings Agreement using ECO technology for Diesel Reciprocating Engine Power Generators



*EXAMPLE: Thirty (30) Diesel Fueled Cummins KTA50 G3 GENSET
Operating at 7000 hours a year and power factor of 0.8 burns
USD\$40,000,000*

PROPOSAL

Guaranteed “financial results” opportunity from fuel savings of
USD \$2 to 4 million per year

At current fuel cost of USD\$ 0.62 per liter of diesel with a
One-time deposit of \$75,000
NO ADDITIONAL COSTS

NOVOsol is pleased to offer “Results Based” contract for ECO technology, ECO Restorer, ECO Graphene and ECO Fuel Catalyst that will reduce fuel consumption on average 12% or more and at the same time, dramatically improve emissions including near 90% reduction in carcinogenic particulate (black smoke).

SUMMARY OF DELIVERABLES AND ECONOMICS FOR DIESEL RECIPROCATING ENGINES POWER GENERATORS

The NOVOsol ECO project consists of two phases, the first retrofitting the power generator with ECO system components to improve information including precision fuel sensors (100x more accurate than manufacturers product), a fuel recycle that eliminates the fuel return, increases fuel filtering and elevates fuel temperature for improved combustion and the ECO control and remote monitoring telemetry to access the genet ECM information (the customer responsible for cellular service connection).

The second phase is the use of the ECO consumables, ECO graphene added to the radiator water to improve temperature transfer, ECO restore added (3% to every 2nd oil change) to repair metallic surface wear, stop escaping fuel and reduce friction wear and ECO catalyst (0.017% of the fuel supply) to increase fuel energy content, lower the temperature of combustion, improve lubricity and eliminate fuel contaminates. With lower temperature of combustion, more of the fuel is burned, more power is produced and the engine will automatically de-fuel itself resulting in lower fuel consumption.

Unburned fuel in the exhaust is the source of green house gases and particulate. Less unburned fuel, a cleaner and more environmentally friendly exhaust at less cost to the operator.

All NOVOsol ECO products conform to fuel requirements of the European Union (EN590 required by all Diesel Engines and Power Generators). ECO product, being EN590 compliant by international law, have no effect on existing or extended warranties.

Results will vary with fuel price and quality, power generator type, operations and maintenance and age of the machine. Typically the older, poor maintained engines or poor diesel fuel quality will see the largest improvement.

SUMMARY OF RESULTS BASED CONTRACT

NOVOsol expects results of 12% or more in improved fuel consumption. After ECO improvements each 1 MW power generator should net savings on average of \$160,000 per year by reducing fuel consumption to USD \$0.03 per kWh.

ECO SAVINGS CHART : CUSTOMER REVENUE GENERATION								
KTA50 G3 CAPACITY	KW	1120						
Hours of Operation	80%	7008						
kWh Capacity	KWH	9811200						
kWh generated	KWH	7848960						
FUEL CONSUMPTION	L/KWH	0.27						
CURRENT FUEL CONSUMPTION	LITER / YR	2119219						
ECO IMPROVEMENT	%	0%	10%	12%	14%	16%	18%	20%
ECO FUEL CONSUMPTION	LITER / YR	2119219	1907297	1864913	1822529	1780144	1737760	1695375
ECO FUEL SAVINGS	LITERS	0	211922	254306	296691	339075	381459	423844
DELIVERED COST OF FUEL	USD\$ / LITER	0.62						
TOTAL FUEL SAVINGS	USD\$	\$-	\$131,392	\$157,670	\$183,948	\$210,227	\$236,505	\$262,783
ECO FUEL CONSUMPTION	L/KWH	0.27	0.243	0.2376	0.2322	0.2268	0.2214	0.216
CUSTOMER REVENUE	50%	\$-	\$65,696	\$78,835	\$91,974	\$105,113	\$118,252	\$131,392
	UNITS	30						
TOTAL YEARLY REVENUE		\$-	\$1,970,874	\$2,365,049	\$2,759,223	\$3,153,398	\$3,547,573	\$3,941,748

ECO PROGRAM SUMMARY:

- Buyer will provide a \$75,000 deposit to NOVOSol to support the systems and manpower effort during the 1st month of the project.
- NOVOSol will outfit each power generator with advanced systems technology including: ECO telemetry and ECO precision fuel sensors. NOVOSol will attempt to retrofit 8 to 10 power generators per month.
- NOVOSol will run a base line on each generator to determine the fuel consumption on a liters per kWh basis which will be used to define the total fuel savings.
- NOVOSol will then retrofit the power generators fuel recycle system and add the ECO graphene to the coolant system.
- NOVOSol will then add ECO Fuel Catalyst to the fuel supply and ECO Restore on the next oil change for each outfitted power generator.
- Using the agreed to “fuel base line” on a monthly basis, the total fuel savings will be calculated. The buyer will rebate NOVOSol 50% of the fuel consumption savings achieved, a “Result Based” financial program.
- Program can be canceled at any time if minimum results are not achieved or maintained.

PRICING, TERMS AND CONDITIONS:

\$75,000 due on contract signing. Deposit will be returned if a minimum of 7.5% fuel consumption (greater than breakeven) is not achieved. Note: all ECO system products will be de-installed and returned to supplier.

REQUIREMENTS TO PROCEED: AUTHORIZED SIGNATORY FOR THE NOVOSOL RESULTS CONTRACT, THE DEPOSIT AND THE FUEL SAVINGS PROGRAM CAN COMMENCE IN 21 DAYS.

ECO PERFORMANCE ADVANTAGES:

- ECO Fuel Catalyst, Graphene and Restore Additives are European Union (EU) Certified.
- Increased Fuel Efficiency, 10, 15, 20% or more.
- Reduced Nitrous Oxides (NOx) up to 40%.
- Reduced Diesel Particulate (PM) up to 90%.
- Reduced Hydrocarbons (HC) up to 30%.
- Reduced Carbon Monoxide (CO) up to 15%.
- Reduced Exhaust Temperature, 40 to 60 Degrees C.
- Reduced Engine Operating Temperature.
- Can be used in any Diesel Engine regardless of size, brand or age.
- Will not void manufacturer's warranty.
- Increases lubricity without lowering BTU energy content.
- Keeps engine cylinders, valves, plugs and injectors virtually carbon free.
- Increases engine power 7 to 10%.
- Increases engine torque up to 12%.
- Keeps engine oil and oil filter cleaner, longer.
- Keeps diesel exhaust filters (DPF) cleaner, longer.
- Reduces use of exhaust fluid (DEF/urea) due to less NOx.
- Substantial fuel cost savings.
- Restores engine parameters, keeps engines alive longer

Results: Spanish Cummins GENSET Dealer

- New Cummins KTA 38 GENSET
- Reduce exhaust temperature 35°C after 12 working hours.
- Reduce fuel consumption 15%
- Reduce emissions 36%.
- Reduce engine noise 5db.
- Increase time life all fuel filter.
- Increase time life engine.
- Less wear in metallic parts engine.

ECO FUEL CATALYST Fuel Optimizer!

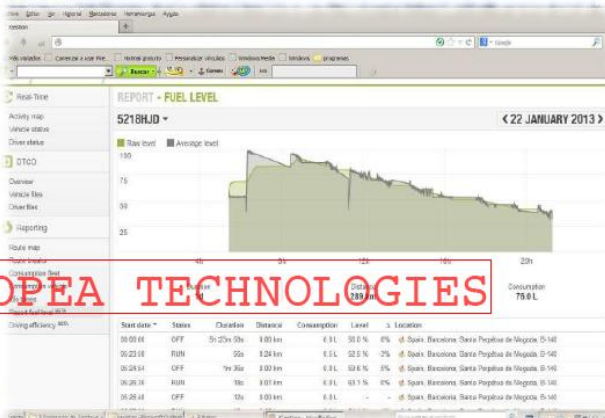
BIO FUEL CATALYZER

Users of fuel additives must be aware of potential changes to fuel properties. With an dosing ratio of 1:4000, the amount of ECO is extremely low and many fuel properties are essentially unchanged. Third party test lab results (Table 1) do show an improvement in the lubricity of the fuel, leading to smaller wear scars. Table shows diesel fuel specifications for EMD Engines & ASTM D2880 Q3 specifications as cited by the Caterpillar G u i d e. Included in this table is a comparison to ECO third party test results. Since the addition of ECO did not impact diesel fuel properties, blending this material with diesel fuel that meets the manufacturer's specifications, such as #2 DQ 000, #2 DQ 500 or ASTM D2880, will result in a fuel that continues to meet these specifications.

Summary of Specifications for Fuel Compared to ECO Treated Fuel

Property and Test Method	ASTM Spec D2880-03 For No. 2 Diesel Fuel	ECO Treated Diesel
Cetane Number (D151)	>140	50.2
Cetane Index (DQ73)	>140	44.4
Density @ 15°C (DQ05)	820-860 kg/m ³	855.3 kg/m ³
90% Boiling Point (DQ6)	<343°C	315°C
Final Boiling Point (DQ6)	<372°C	344°C
Distillation Temperature		315.2°C
90% Volume Recovered (DQ6)(°C)		98%
Distillation Recovery (DQ6)		(Unchanged from diesel fuel control)
Total Sulfur (DQ62)	0.50%	0.007% (UPTO 20% only)
Copper Strip Corrosion (3hr./100°C) (DQ30)	No. 1 or better	1 strip
Carbon Residue (on 10% bottoms) (DQ89)	0-0.35%	0.036%
Water and Sediment (DQ79)	0-0.05%	<0.002%
Cloud/Pour Point (DQ50, DQ7)	<0°C	0.2°C
Flash Point (DQ3)	Normally >66°C	68°C
Organic chlorides (U.O.P. Method) (DQ07ppm)	N/A No. 1588 (5) (total chloride)	Are not used in the production of UPTO 20%
Filtration Cleanliness (EMD Std. Lab. Practice No. 102)	0.3 mg/L	No change from diesel fuel control (DQ068 filter plug in test)
Viscosity (DQ45) @ 40°C	1.9-4.1 cS	2.572 cS
Ash Weight % (DQ82)	0-0.02%	<0.003%
Lubricity (DQ079) (HFRR) wear scar diameter @ 160°C	0-0.52 mm	0.263 mm

* For EMD Engines, EMD specifies test procedures in "Electro Motive Maintenance Instruction" M.1750 Rev. 3, p. 85 (2009).
 ** For Caterpillar Engines, Caterpillar specifies test procedure ASTM D2880 No. 2 Diesel Fuel & Diesel Fuel Systems, App. & Installation Guide, p. 6 (2009)



ECO COMBUSTION EUROPEA TECHNOLOGIES

ASTM TESTING

Eco-Combustion CHARACTERIZATION: June - 2013



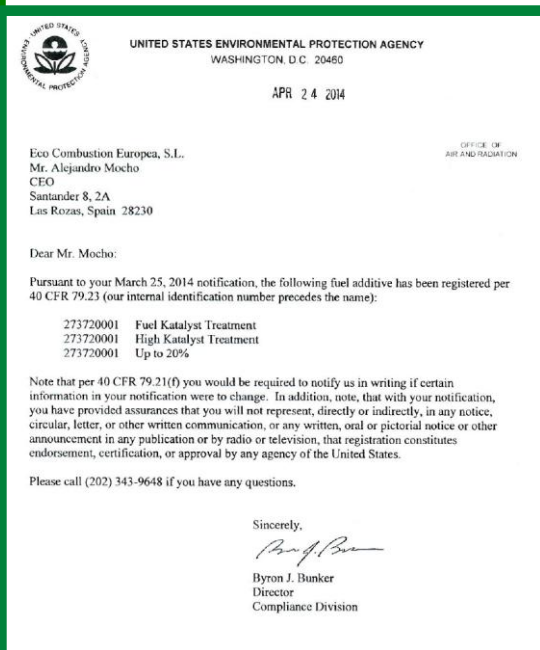
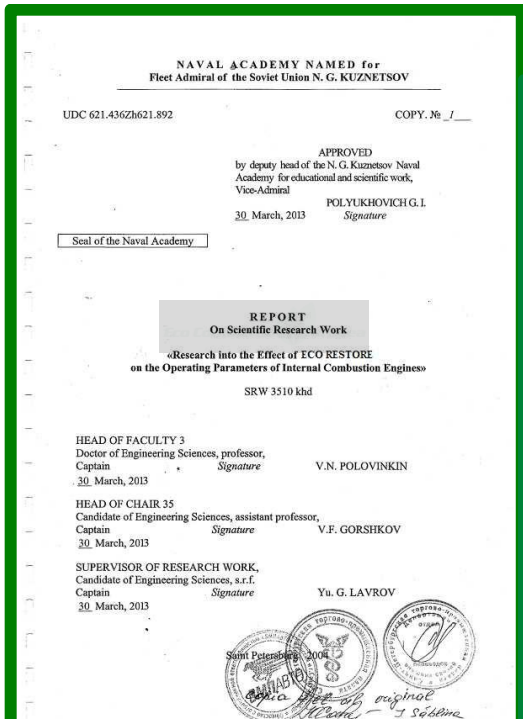
DIESEL CHARACTERIZATION

DENSITY AND VISCOSITY → ASTM D7042/04 STANDARD TEST METHOD FOR DYNAMIC VISCOSITY AND DENSITY OF LIQUIDS BY STABINGER VISCOMETER



RAILWAY LOCOMOTIVE (Diesel Generator) Results

- Power Increase of 41%
 - From 850 kW to 1200 kW engine torque and power
- Fuel Consumption reduced 56%
 - From 830 grams per kWh to 223 grams per kWh
- Emissions Reduction
 - Eliminate particulate (Black Smoke)
- Reduced engine noise
- Reduced exhaust temperature



Russian Military and US EPA Approvals

STANDARD PRICE BOOK

NOVOSOL Power Company
ECO PRICE LIST

DESCRIPTION	Pricing Specification	Use	Expected Results	List Price	# of Units	Extended Price
Wash receiver to reduce Oil Volume	price per 5 litre fluid	Every 2nd Oil Change	Best Results on Older Engines, 5 to 8% decrease in fuel consumption, less particulate and emissions, longer oil life	\$40.50	1	\$40.5
Oil treatment of anti-friction fuel economy	price per 5 litre fluid	First Oil Change	New Engine Oil Treatment protects engines and decreases friction	\$40.50	1	\$40.5
Treatment - 1 liter per engine	price per litre fluid	Once	Coolant coil treatment, coats surface to reduce mineral deposits and increase temperature transfer	\$376.20	1	\$376.2
MS20 - 1 to 6000 Fuel Mixture consumption (2000:1 on	price per 20 litre fluid	Products for Diesel, HFO and Gasoline	Best results after 24 hours, 5 to 15% reduction in fuel consumption; increases energy content, eliminates contamination and emulsifies water and adds lubrication to fuel.	\$1,006.60	1	\$1,006.6
stop HHO generation and air consumption (20 liter for 1	20 liter per minute H2 unit system	System product	Results of 15 to 20% reduction in fuel consumption; Electrolysis unit to generate H2 and O2 flow to the air intake; increases energy content of the combustion air.	\$3,006.60	1	\$3,006.6
Ion System	price per unit system	System product	Eliminates fuel return adds fuel filtering, increases fuel temperature, improved fuel combustion, eliminates emissions	\$1,969.76	1	\$1,969.7
System Monitor and Telemetry	price per unit system	System product	Access all data plus GPS and control functionality	\$2,357.20	1	\$2,357.2
IMS - Intake and return to	Feed and Return Sensors (2)	System product	Precise fuel measurement increases control, eliminates surging	\$2,357.20	1	\$2,357.2
			WAT	12%		\$1,771.1
			TBD by location and customer			
total			Total			\$16,530.7