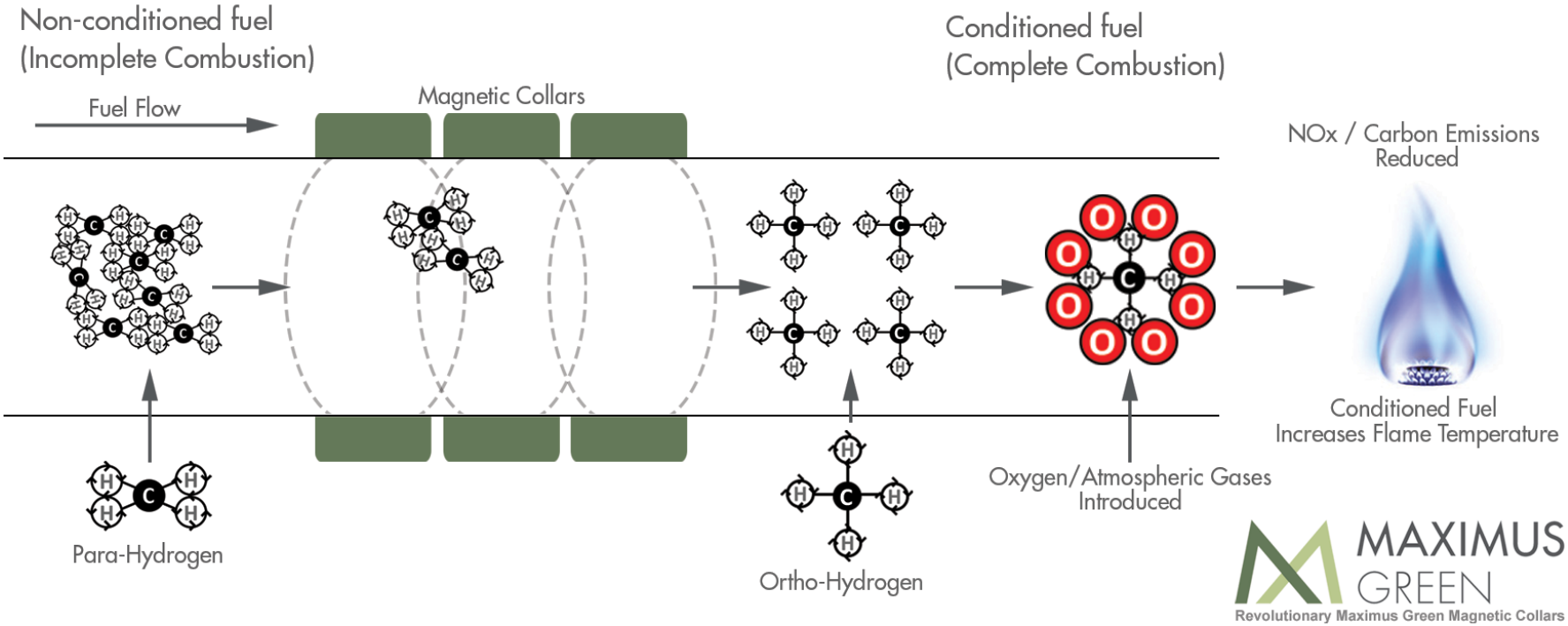
MAXIMUS GREEN

Reducing Environmental Impacts with added Economic Benefit

บริษัท ซีเอฟ รายา จำกัด
CF RAYA COMPANY LIMITED

eeMGee

PRODUCT INTRODUCTION



Conventional fuel contains molecules that are attracted to each other in large clusters known as associations; being charged positively and negatively at random.

As fuel travels along the fuel line it passes through the powerful magnetic field.

The hydrocarbon molecules in the fuel become positively charged and repel each other.

This breaks the hydrocarbon clusters wide open, allowing oxygen molecules greater access to them for improved combustion.

MAXIMUS GREEN

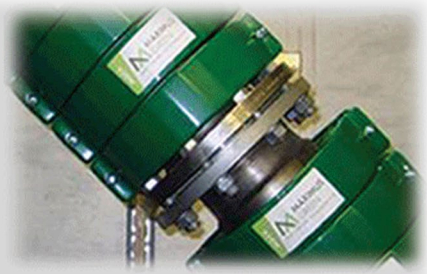
Reducing Environmental Impacts with added Economic Benefit

Maximus Green eeMGee creates:

- A rise in flame temperature of up to 120º
- This means that the water in a boiler reaches target temperature sooner, reducing lead time
- Less fuel is burnt reaching the target temperature reducing cost and carbon spend
- The burner's "burning time" is reduced, which lowers maintenance costs
- The heat exchange plate is slightly hotter so the circulating water is hotter on some systems which means thermostats can be lowered
- Fewer emissions for the same volume of fuel consumed
- Works on gas, oil, LPG and Diesel

MAXIMUS GREEN

Reducing Environmental Impacts with added Economic Benefit



Saving Thousands for;

-Hotels and Leisure Centres
-Education Establishments
-Healthcare | NHS
-Government & Councils
-Commercial Buildings
-Industrial & Manufacturing

MAXIMUS GREEN

Reducing Environmental Impacts with added Economic Benefit

Selected European Customers with Case Studies

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

The Royal Orthopaedic Hospital NHS
NHS Foundation Trust

The Royal Orthopaedic Hospital NHS
NHS Foundation Trust

The Royal Orthopaedic Hospital NHS Foundation Trust is one of the largest specialist orthopaedic units in Europe. We offer planned orthopaedic surgery to people locally, nationally and internationally. When you choose The Royal Orthopaedic Hospital you're choosing the very best treatment from an award winning team who will put you at the centre of your care.

The Royal Orthopaedic Hospital located in Birmingham boasts a large site where we the estates team pioneer technology ahead of other trusts to reduce costs and create a greener environment for the nation's health. Because of this we looked for pioneering technology to directly reduce our energy usage using Maximus Green Limited's expertise.

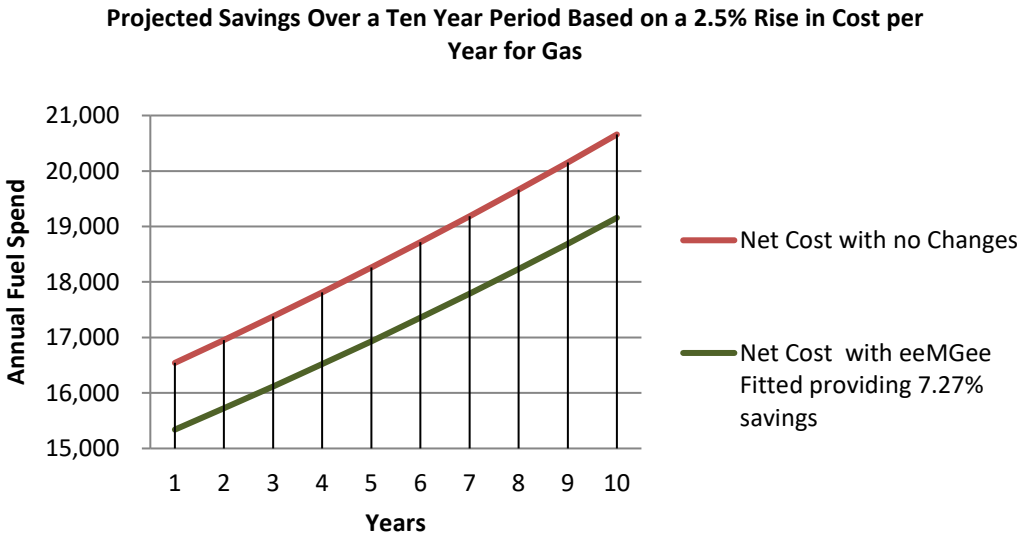
Since the implementation of Maximus Green's technology on the boiler systems at one boiler house, The Royal Orthopaedic Hospital NHS Foundation Trust has reduced its overall gas consumption for one department by more than 20% where fitted. This is generating expected annual savings of £7,932 at 2015 cost levels. This means a return of investment of 1 year and 10 months. Reducing our gas consumption by 20.92% has had an added green benefit by reducing CO Emissions being released into our atmosphere by 44.90 tonnes per annum.

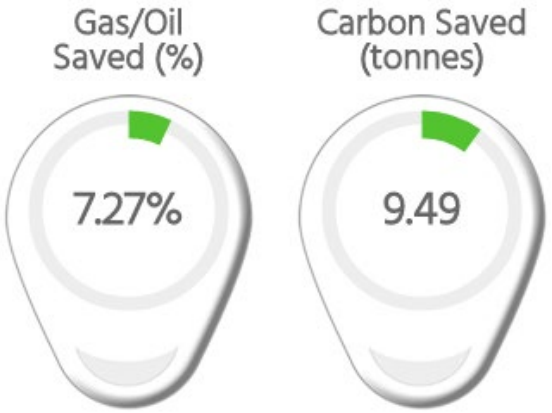
We are extremely pleased with a result of 20.92% usage saving and are currently looking at other sites to implement the technology across the Trust. We are very pleased with the fuel saving along with the reduction in emissions advancing The Royal Orthopaedic Hospital NHS Foundation Trust is closer to achieving their targets.

David Cooke
Estates Manager
8th September 2016

NHS

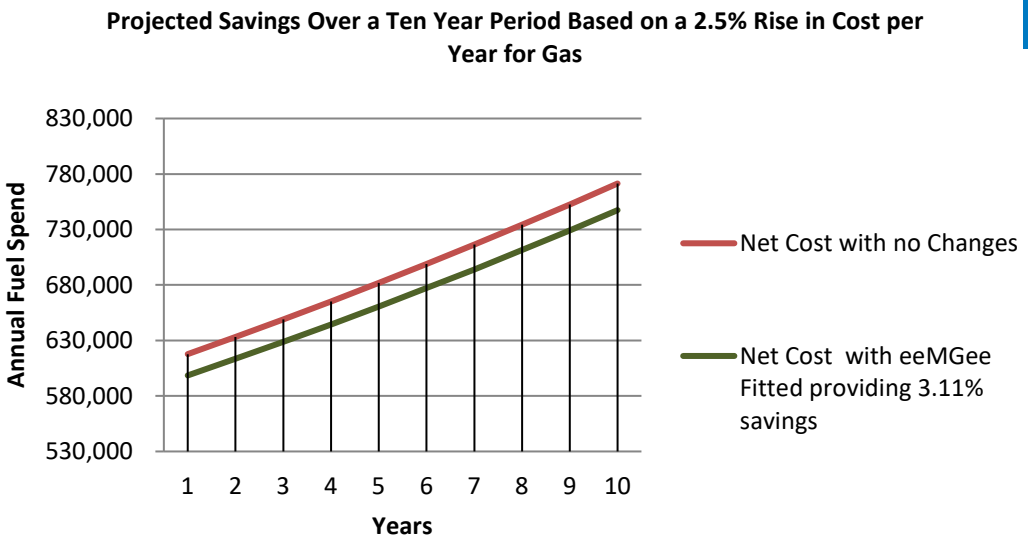
NELFT NHS
NHS Foundation Trust

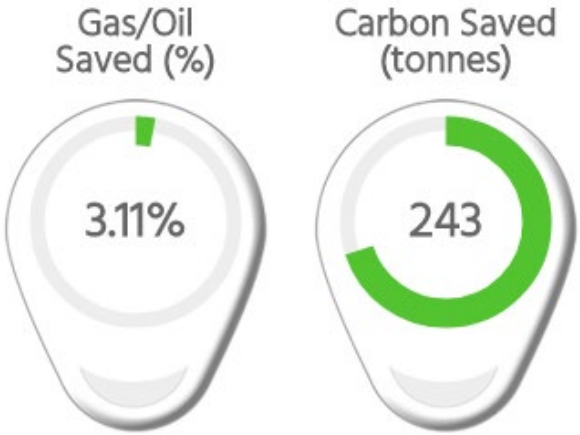


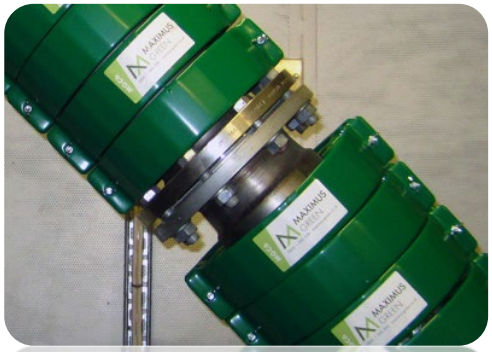


The Corringham Centre had a spend of £16,542pa

A world Famous Children's Hospital in London - CHP







The Hospital had a spend of £617,700 pa

SIMON LANGTON
Grammar School for Boys

SIMON LANGTON
Grammar School for Boys
Canterbury, Kent CT4 7AS

Tel: 01227 463567
Fax: 01227 456486
email: office@thelangton.kent.sch.uk
website: www.thelangton.kent.sch.uk
Headteacher
Dr M N F Baste

Simon Langton Grammar School for Boys is located in Canterbury, Kent and is extremely experienced in producing high achieving and well rounded individuals ready to take on roles as the leaders of their generation. It is also a formidable science school and has a science department that is leading the country in both its teaching and academic research.

Since the implementation of Maximus Green's technology on the boiler systems, The Langton has reduced its overall oil consumption by more than 22% and overall gas consumption by more than 13%. This is generating expected annual savings of £9,154 at 2015 cost levels. This means a return of investment of less than 18 months. Reducing our fuel consumption has had an added green benefit by reducing CO Emissions being released into our atmosphere by 72.27 tonnes per annum.

We are extremely pleased with the results of 22.32% and 13.66% cost saving on our oil and gas costs, as well as the reduction in emissions into the environment.

We look forward to working with Maximus Green Limited on further projects.

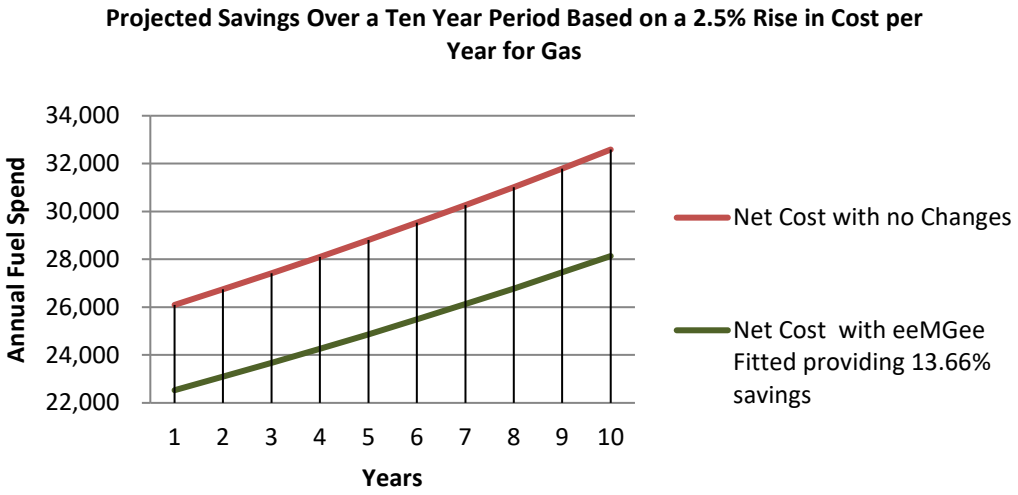
Julian Hunt
Bursar
August 2016

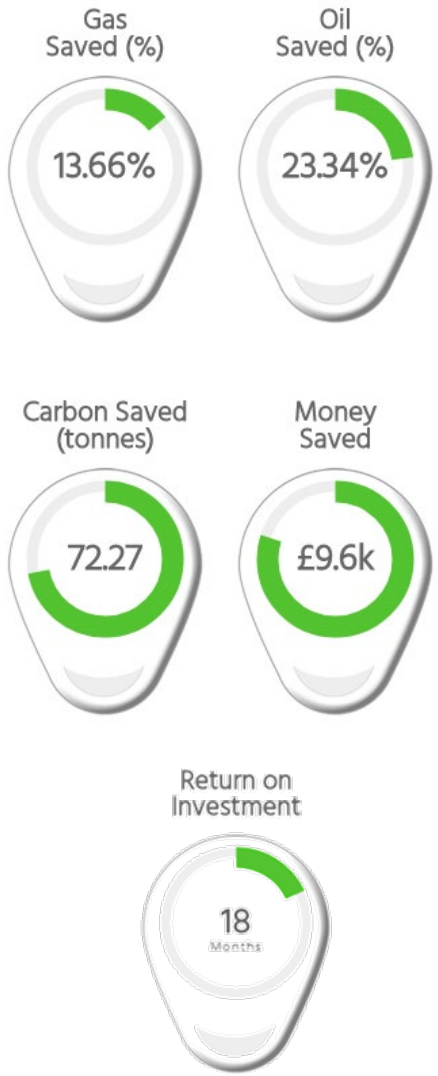
Simon Langton Grammar School For Boys

"We are extremely pleased with the results of 23.34% and 13.66% savings on our oil and gas costs at Simon Langton Grammar School for Boys" Mr Julian Hunt – Bursar

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

SIMON LANGTON
Grammar School for Boys



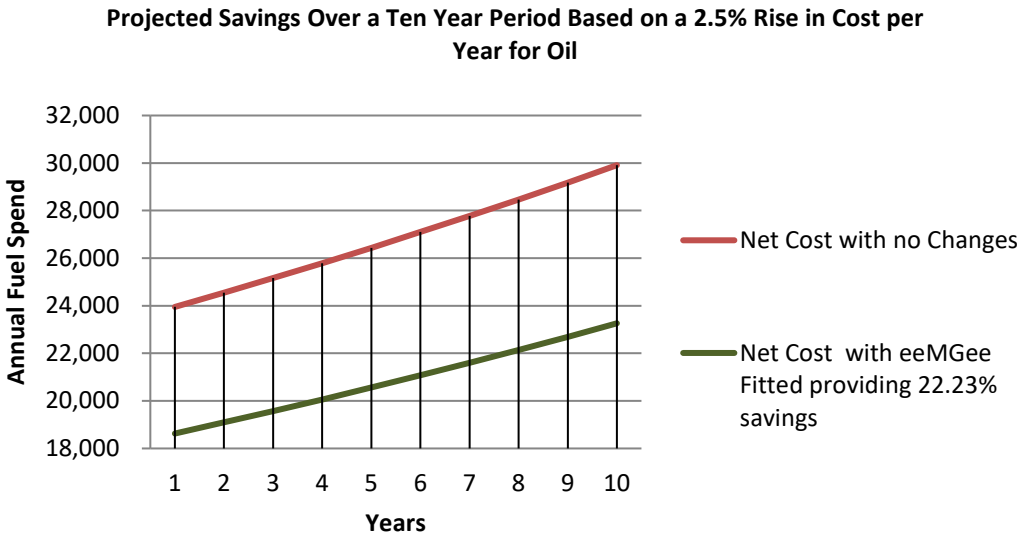


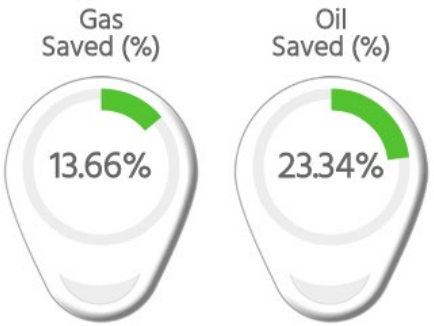
"We are extremely pleased with the results of 23.34% and 13.66% savings on our oil and gas costs at Simon Langton School" Mr Julian Hunt – Bursar

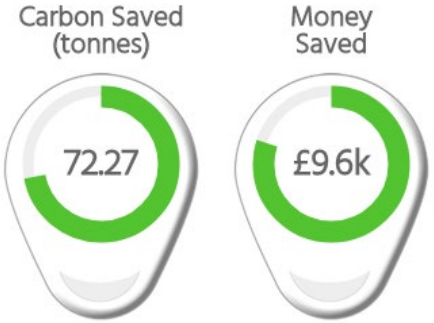
Whole site had fuel spend of £50,045pa

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

SIMON LANGTON
Grammar School for Boys







"We are extremely pleased with the results of 23.34% and 13.66% savings on our oil and gas costs at Simon Langton School" Mr Julian Hunt – Bursar

Whole site had fuel spend of £50,045pa

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

Month	Dates	Consumption (kWh)	HDD	20 Yr Ave	Normalised Data	Normalised increase / decrease	% age movement	Savings through use of Maximus Green Products
1	June - 2016	19,215	84	73	16,699	(6,238)	(27.20%)	18.53%
	June - 2015	20,737	66	73	22,936			
2	July - 2016	19,766	61	42	13,609	(1,015)	(6.94%)	
	July - 2015	18,803	54	42	14,625			
3	August - 2016	19,121	43	39	17,342	(3,582)	(17.12)%	
	August - 2015	18,242	34	39	20,925			

1 Belle Vue Square
Broughton Road
SKIPTON
North Yorkshire
BD23 1FJ

CRAVEN
IN · THE · YORKSHIRE · DALES
DISTRICT

Telephone: 01756 693929

16/10/17

To whom it may concern

Reference: Maximus Green – Magnetic Fuel Conditioner

Initially, I was very skeptical about installing the Magnetic Fuel Conditioner on our boilers and Combined Heat and Power unit gas supplies. But based on performance it looks like we'll be saving over 18% on our gas consumption.

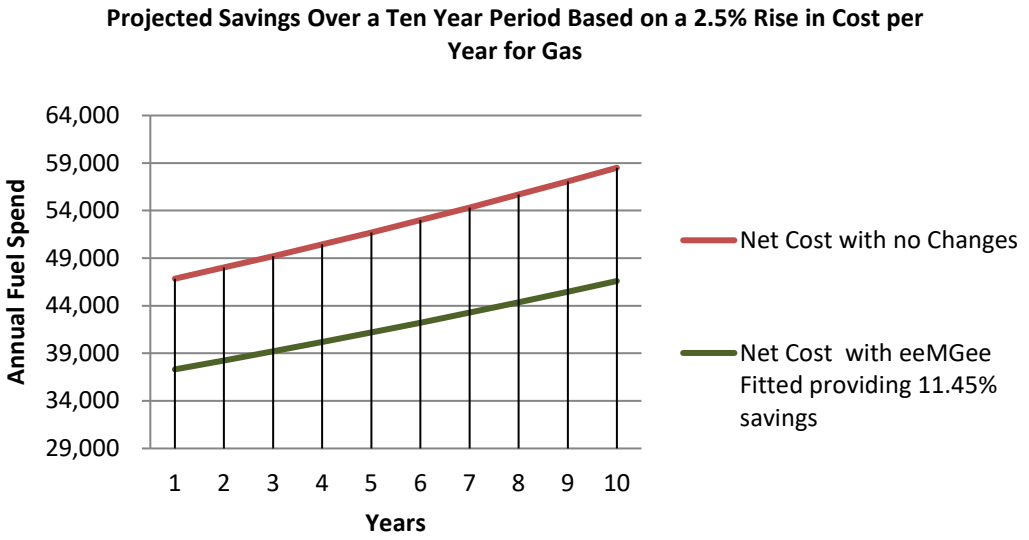
Saving us both environmentally and financially, Maximus Green have certainly helped us to achieve our 'A' star rating on our DEC certificate. For a leisure centre with swimming pools, this is almost unheard of.

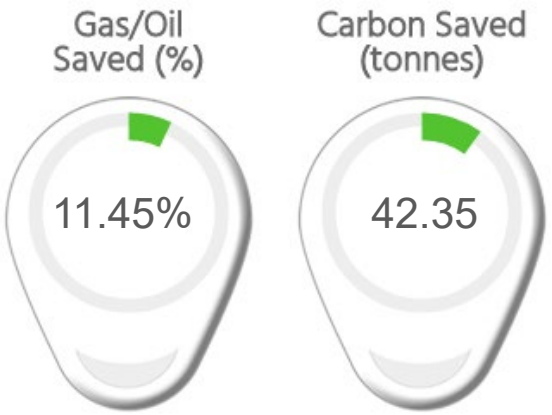
They are professional and helpful and I would certainly recommend them to anyone else thinking of installing this technology on their heating system.

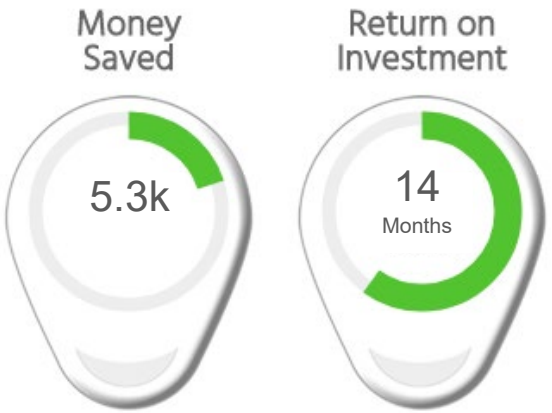
Yours sincerely

Lloyd Hancox
Leisure Services Manager
Craven District Council

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

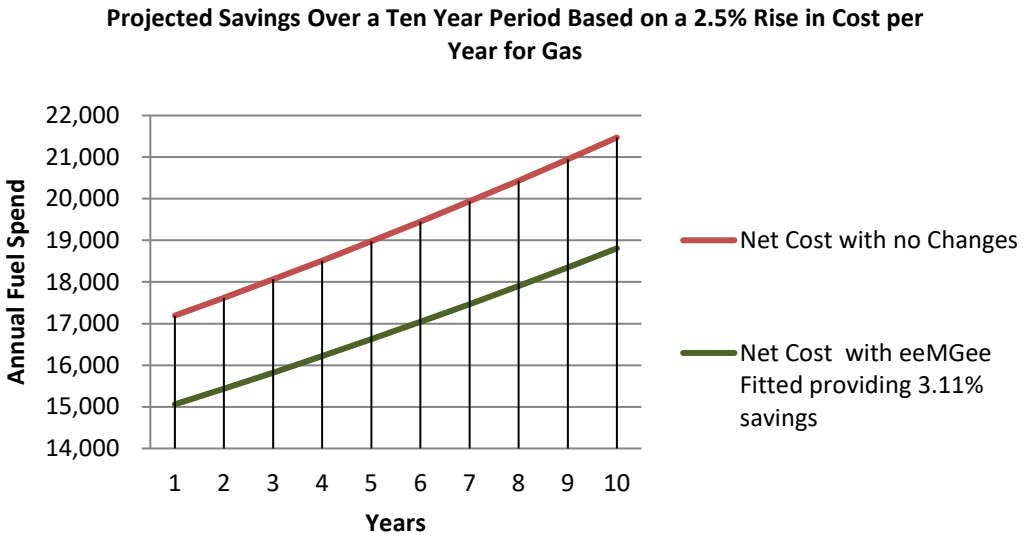


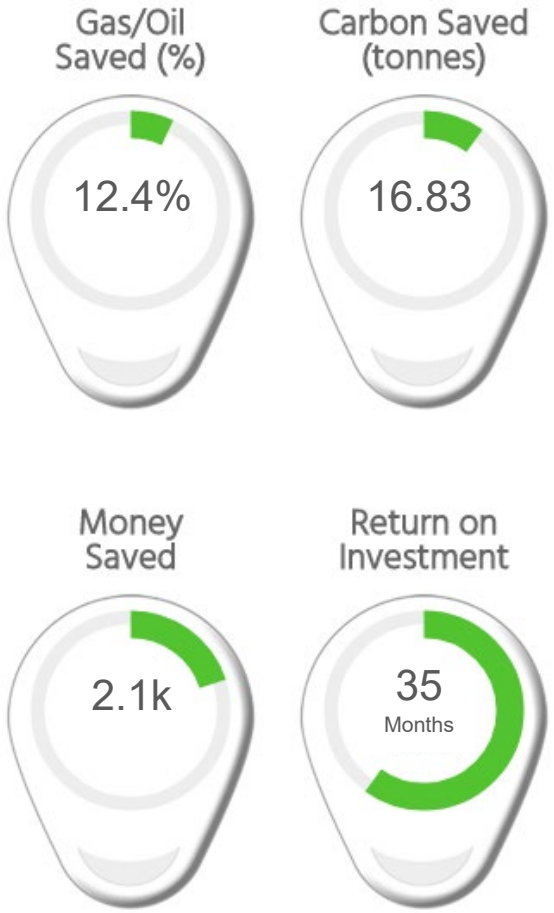




The Gallery had a spend of £46,847 pa

Fuel Conditioned – Gas – Clore Gallery





The Council had a spend of £17,192 pa

MAXIMUS GREEN

Reducing Environmental Impacts with added Economic Benefit

Selected Customers in USA & Canada with Testimonial Letters

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

MAXIMUS GREEN

THE OHIO STATE UNIVERSITY
OARDC

Ohio Agricultural Research and Development Center

Facilities Services
1680 Madison Avenue
Wooster, OH 44691-4096

Phone 330-263-3915
Fax 330-263-3620

Green Energy Technologies Inc
George Prior
2645 Royal Windsor Dr
Mississauga, Ontario
Canada L5J 1K9

Dear George

This is a letter confirming that we have received the summary of the cost savings of the magnet technology that you have installed on our gas boiler here at the Ohio State University/O.A.R.D.C. here in Wooster, Ohio.

It looks like it has had substantial savings on our system with your figures of a %31.1 cost reduction. This has been a very acceptable technology and practice. We may have to take a serious look at having this system installed permanently. Thank you for your time in this installation that you have contributed so far.

Ron Hamilton
Maintenance Supervisor
OSU/OARDC
1680 Madison Ave
Wooster, Ohio 44691

SWISS CHALET
ROTISSERIE & GRILL

6970 Financial Dr.
Mississauga, ON
L5N 8J4
(905)567-8172

Green Energy™ Technologies Inc
2320 Bristol Circle Unit 1
Oakville, Ontario
L6H 5S3

October 15th, 2010

Attention: Mr. George Prior - President

Dear George,

This letter confirms that we have installed the *GET GREEN*® System at both our St. Catharines and Mississauga locations.

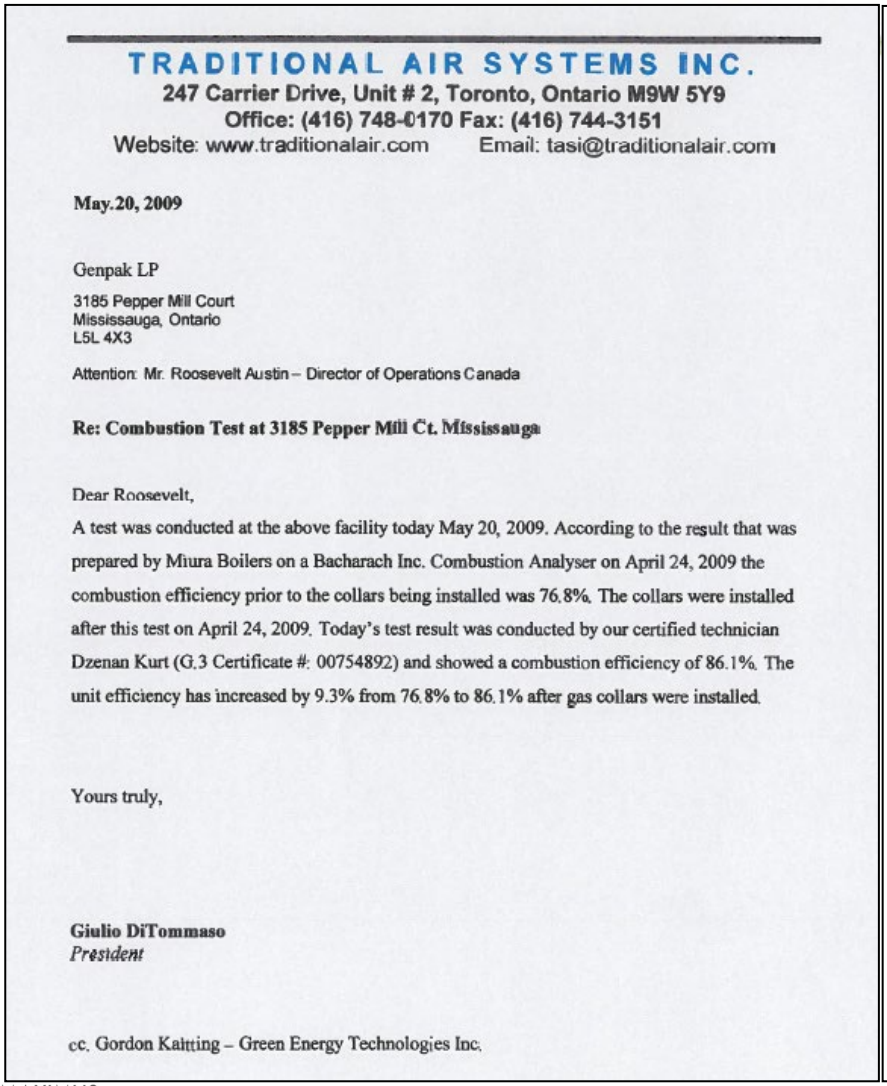
I have been monitoring the fuel bills and have realized an average decrease in fuel consumption of 12% since its application. These savings have allowed the *GET GREEN*® System to pay for itself in just over one year. In addition to the savings, we have also gained peace of mind knowing that the *GET GREEN*® System has significantly lowered our CO emissions.

We are proud to be a member of the *GET GREEN*® Team and would highly recommend the *GET GREEN*® System to all the Swiss Chalet franchises across Canada.

Sincerely,

Rino Vetrone
Owner and General Manager

MAXIMUS GREEN



TRADITIONAL AIR SYSTEMS INC.
247 Carrier Drive, Unit # 2, Toronto, Ontario M9W 5Y9
Office: (416) 748-0170 Fax: (416) 744-3151
Website: www.traditionalair.com Email: tasi@traditionalair.com

May.20, 2009

Genpak LP
3185 Pepper Mill Court
Mississauga, Ontario
L5L 4X3

Attention: Mr. Roosevelt Austin – Director of Operations Canada

Re: Combustion Test at 3185 Pepper Mill Ct. Mississauga

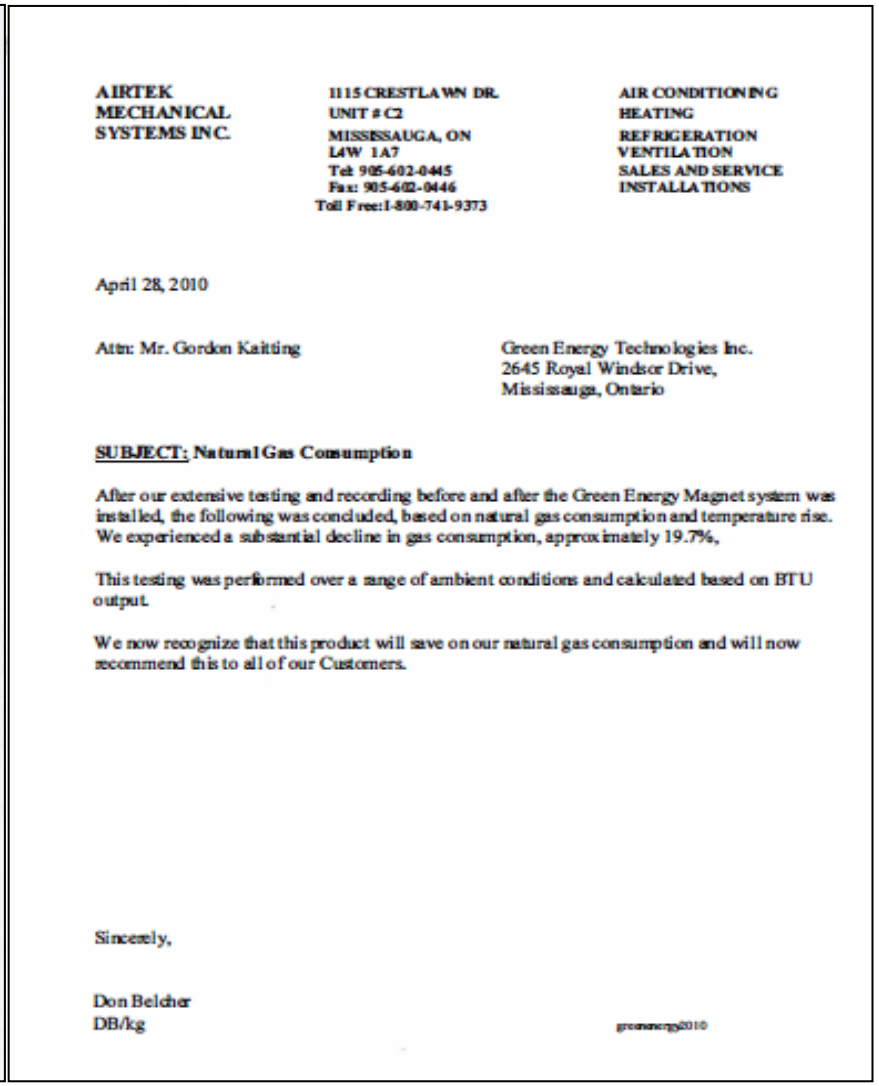
Dear Roosevelt,

A test was conducted at the above facility today May 20, 2009. According to the result that was prepared by Miura Boilers on a Bacharach Inc. Combustion Analyser on April 24, 2009 the combustion efficiency prior to the collars being installed was 76.8%. The collars were installed after this test on April 24, 2009. Today's test result was conducted by our certified technician Dzenan Kurt (G.3 Certificate #: 00754892) and showed a combustion efficiency of 86.1%. The unit efficiency has increased by 9.3% from 76.8% to 86.1% after gas collars were installed.

Yours truly,

Giulio DiTommaso
President

cc. Gordon Kaitting – Green Energy Technologies Inc.



AIRTEK MECHANICAL SYSTEMS INC.

1115 CRESTLAWN DR.
UNIT # C2
MISSISSAUGA, ON
L4W 1A7
Tel: 905-602-0445
Fax: 905-602-0446
Toll Free: 1-800-741-9373

AIR CONDITIONING
HEATING
REFRIGERATION
VENTILATION
SALES AND SERVICE
INSTALLATIONS

April 28, 2010

Attn: Mr. Gordon Kaitting

Green Energy Technologies Inc.
2645 Royal Windsor Drive,
Mississauga, Ontario

SUBJECT: Natural Gas Consumption

After our extensive testing and recording before and after the Green Energy Magnet system was installed, the following was concluded, based on natural gas consumption and temperature rise. We experienced a substantial decline in gas consumption, approximately 19.7%,

This testing was performed over a range of ambient conditions and calculated based on BTU output.

We now recognize that this product will save on our natural gas consumption and will now recommend this to all of our Customers.

Sincerely,

Don Belcher
DB/kg

What do our Customers say?

Case Study - Cut Your Fuel Consumption: Heating Costs and Emissions

MAXIMUS GREEN

Ellis Packaging West Inc.

To whom it may concern, March 30, 2009

I contracted Green Energy Technologies to install their products on our factory and warehouse gas heaters in November 2008. The installation was seamless and executed with virtually no disruption to our plant operations.

I am pleased to report that year over year comparisons of 4 winter months realized a net benefit of over 10% in energy savings. This was even more impressive in that about 50% of our gas heaters had been replaced less than a year prior, meaning our units were running at a fairly high level of efficiency overall.

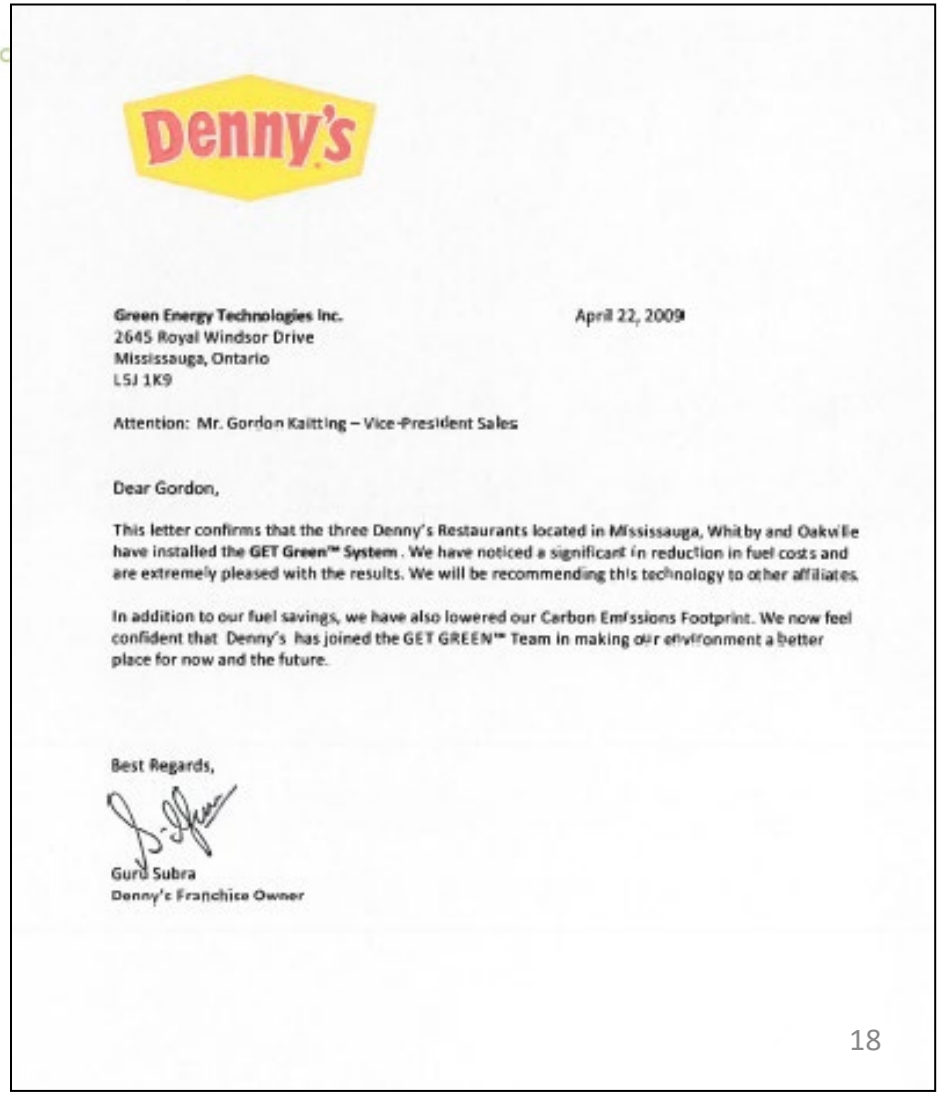
I can highly recommend Green Energy Technologies and am proud to have our customers ask about the "Get Green" Plaque in our lobby.

Yours Truly,

John C. Clarke
President
Ellis Packaging West Inc.

The Ellis Group

136 Victoria Rd. S, Guelph, Ontario N1E 5P6 · Phone (519) 822-7060 · Fax (519) 822-9378



Denny's

Green Energy Technologies Inc.
2645 Royal Windsor Drive
Mississauga, Ontario
L5J 1K9

April 22, 2009

Attention: Mr. Gordon Kaitting – Vice-President Sales

Dear Gordon,

This letter confirms that the three Denny's Restaurants located in Mississauga, Whitby and Oakville have installed the **GET Green™ System**. We have noticed a significant in reduction in fuel costs and are extremely pleased with the results. We will be recommending this technology to other affiliates.

In addition to our fuel savings, we have also lowered our Carbon Emissions Footprint. We now feel confident that Denny's has joined the GET GREEN™ Team in making our environment a better place for now and the future.

Best Regards,

Guru Subra
Denny's Franchise Owner

What do our Customers say?

MAXIMUS GREEN

JEMS COATING LIMITED

ISO/TS 16949 BUREAU VERITAS Certification

2008-07-30

Mr. Gordon Kaitting
Vice President
Green Energy Technologies Inc.
2645 Royal Windsor Drive
Mississauga, Ontario
L5J 1K9

Subject: Fuel Conditioner application to reduce CO output of propane fork trucks

Dear Gordon:

I must admit that I was very skeptical that a couple of magnets would make any difference at all in the levels of carbon monoxide exhausted from our propane fueled forklift trucks.

A project was undertaken to determine if the Fuel Conditioner product could contribute to reducing the CO output levels of forklift trucks currently in use at JEMS. We identified three trucks, one a control (#16 with1699 hours of use and CO output of 650 ppm) and two (#14 with 4669 hours of use and CO output of 650 ppm and #17 with 454 hours of use and CO output of 600 ppm) to be fitted with the Fuel Conditioner.

After 10 days, we measured the CO output of each truck and found that #14 had dropped to 70 ppm and #17 had dropped to 8 ppm. The control truck, #16 had no change. Additionally we measured the average number of hours that a 33lb propane cylinder would last during the 10 day trial and found no real difference between the control truck 7.11 hours and the two test trucks #14 8.18 hours and #17 7.22 hours.

We will continue to monitor and keep you informed of the fuel consumption rates and CO output over time. Additionally we have widened the project to include all of our seven propane forklifts.

Best regards,

Rob Simpson
Chief Operating Officer
JEMS Coating Limited

210 Jacob Keffer Parkway, Concord, Ontario L4K 4W3
905-303-7433 www.jemscoating.com

Boston Pizza

BOSTON PIZZA OAKVILLE
2011 WINSTON PARK DRIVE
OAKVILLE, ONTARIO L6H 6P5

TEL: (905) 829-8370
FAX: (905) 829-8375

To whom it may concern,

July 8, 2008

Please be advised of the completed test that was conducted with Green Energy Technologies Inc. All testing was conducted at our corporate store in Oakville Ontario Canada, we monitored the program over a four month study using the Get Green Technology. We were extremely pleased with the results of a 10.2% fuel savings and are currently recommending the Get Green program to all of our franchises across Canada. We were very pleased with the fuel savings along with the reduction of Carbon Emissions advancing Boston Pizza in the race of lowering emissions into the environment.

Rino Vetrone
General Manager

What do our Customers say?

MAXIMUS GREEN

Reducing Environmental Impacts with added Economic Benefit

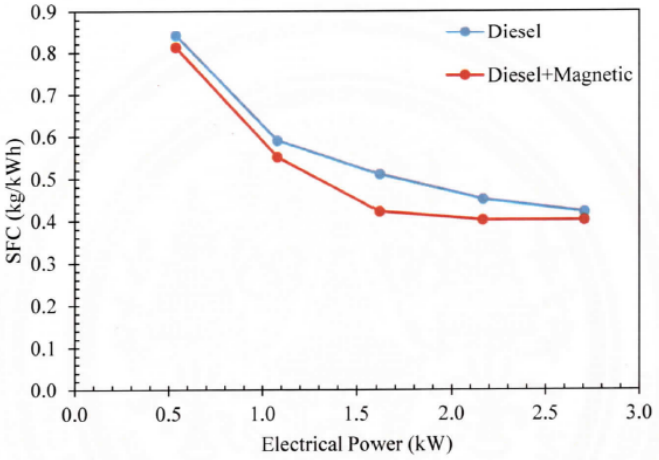
South East Asia:
Small-Scale Trials/Laboratory Tests
(*updated as of November 2024*)

Diesel Engine Tests (March 2019: Supervised by Thermal Engineering Center – KMUTT, Thailand)

THERMAL ENGINEERING CENTER
Engineering Building (Witsawa-Wattana) 8 Floors Building, 8th Floor
Tel: +66 2470 9658 Fax: +66 2470 9109

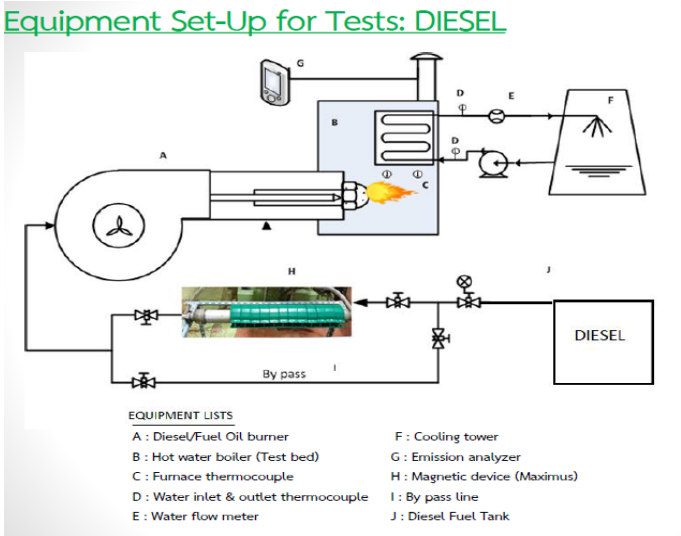
2. Specific Fuel Consumption

Electrical power (kW_{ele})	Diesel	Diesel and Magnetic	Compare (%)
0.54±0.005	0.84±0.071	0.81±0.041	-3.55
1.08±0.009	0.59±0.033	0.55±0.023	-6.07
1.62±0.003	0.51±0.078	0.42±0.005	-17.53
2.17±0.007	0.45±0.017	0.40±0.031	-10.80
2.71±0.002	0.42±0.021	0.40±0.011	-5.67



- Diesel Generator Capacity: 3kWe
- Overall results during the tests show average savings based on certified specific fuel consumption around 6.5%
- Certified specific fuel consumption during 60-80% load shows fuel savings in the range of 10 %

300 kW Diesel - Fired Boiler Tests (June 2019: Supervised by Thermal Engineering Center – KMUTT, Thailand)

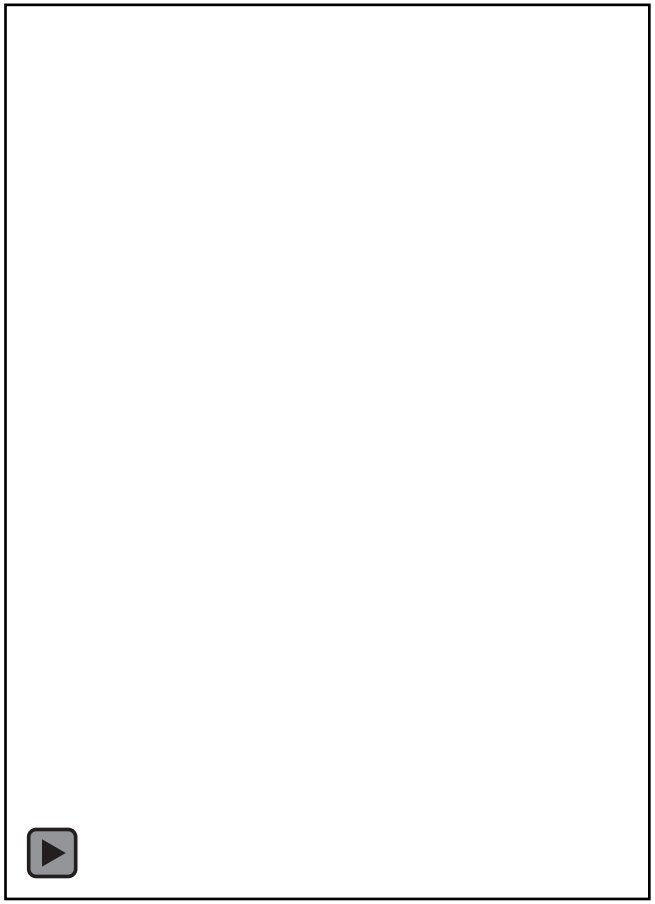


- Burner Max Capacity: 335kW
- Complete results during the tests under low load (150kW) firing rate (10 Barg pressure) showed reduction in Diesel consumption with average results around 6.2%
- The above figures are in line with actual results obtained from European customers highlighted in earlier sections.
- Diesel is expensive fuel and the above results could lead to significant increase in operational profits including great improvement in CO2 emissions plus health & safety

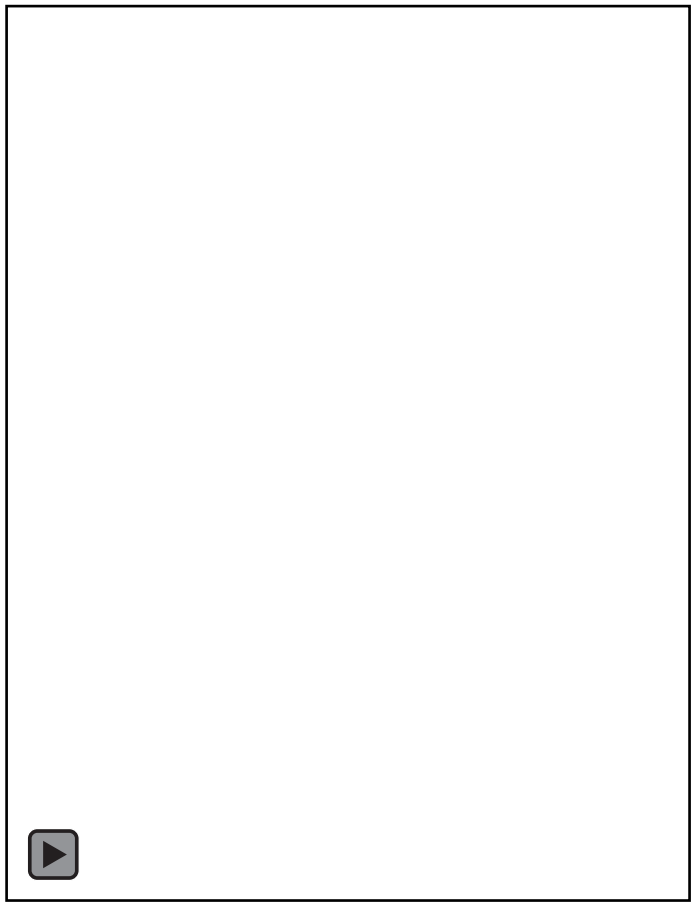
300 kW Diesel - Fired Boiler Tests (June 2019: Supervised by Thermal Engineering Center – KMUTT, Thailand)

Flame Characteristics

➢ With out



➢ With Maximus



300 kW Diesel-Fired Boiler Tests (June 2019 Results: Supervised by Thermal Engineering Center – KMUTT, Thailand)

Emission Performance

Condition	O_2 (%)			CO (ppm)			No_x (ppm)			Flue temp (°C)		
	Min	Average	Max	Min	Average	Max	Min	Average	Max	Min	Average	Max
maximus 1	3.82	3.99	4.2	110.2	127.8	131.01	38.65	40.22	42.71	182.01	183.21	184.55
with out 1	3.90	4.55	4.7	88	101.23	165	39.47	40.74	41.62	183.67	184.62	186.27
maximus 2	3.98	4.48	4.63	105.6	113.58	122.2	39.25	40.17	42.33	183.98	184.89	185.93
with out 2	4.01	4.3	4.52	110.8	120.32	133.8	40.01	40.36	41.54	184.00	185.05	186.34

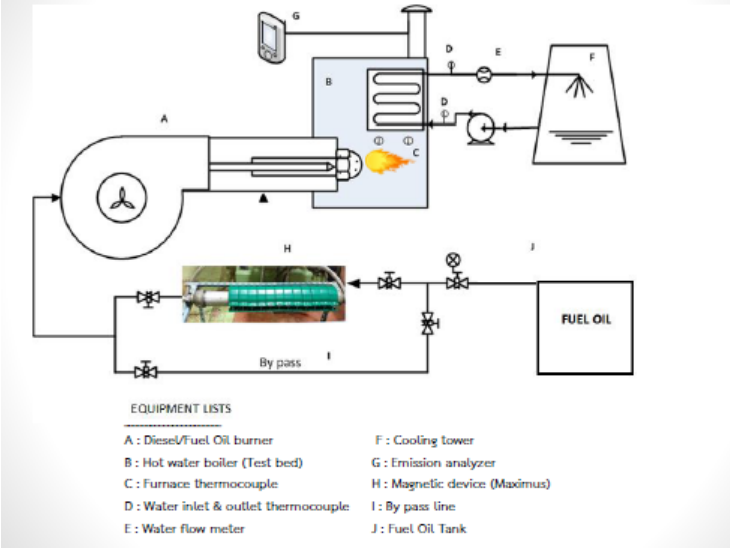
Fuel Savings Performance

HHV diesel, kj/kg	Pressure , burner	Time	Mass flow	Buner input	Water flow	inlet water temp	outlet water temp	Furnace temp 1	Furnace temp 2	O_2	CO	NO	Flue Temp.	Effciency (direct)
43819	barg	sec	kg/s	kW	m3/h	°C	°C	°C	°C	%	ppm	ppm	°C	%
Maximus 1	10	3600	0.00343	150.29	4.5	28.74	55.05	804.73	727.46	3.99	127.8	40.22	183.21	91.47
Without Maximus 1	10	3600	0.00345	151.17	4.5	29.31	54.17	798.46	722.71	4.55	101.23	40.74	184.62	85.93
Maximus 2	10	3600	0.00345	151.17	4.5	29.48	55.52	802.31	726.48	4.48	113.58	40.17	184.89	90.00
Without Maximus 2	10	3600	0.00344	150.73	4.5	29.60	54.34	800.36	723.68	4.3	120.32	40.36	185.05	85.76

$$EnergySaving = \frac{\eta_{maximus} - \eta_{without\ max}}{\eta_{maximus}} x100$$

Saving = 6.24 %

300 kW Fuel Oil - Fired Boiler Tests (July 2019: Supervised by Thermal Engineering Center – KMUTT, Thailand)



- Burner Max Capacity: 335kW
- Complete results during the tests under 88 kW firing rate (20 Barg pressure) showed reduction in Diesel consumption with average results around 8.7%
- The above figures are in line with actual results obtained from European customers highlighted in earlier sections.
- Diesel is expensive fuel and the above results could lead to significant increase in operational profits including great improvement in CO2 emissions plus health & safety

300 kW Fuel Oil - Fired Boiler Tests (July 2019: Supervised by Thermal Engineering Center – KMUTT, Thailand)

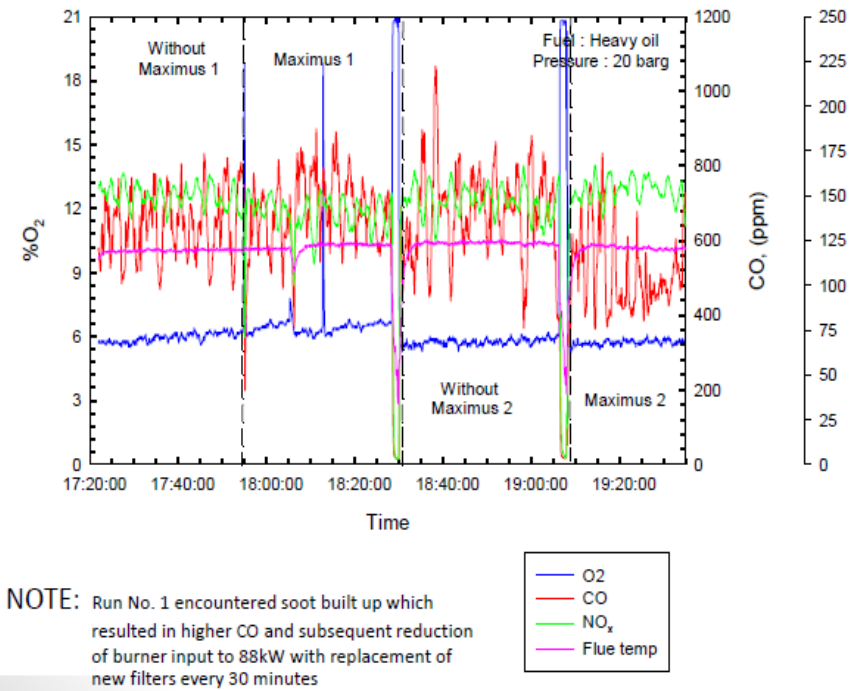
Flame Characteristics

➢ With out

➢ With Maximus

300 kW Fuel Oil - Fired Boiler Tests (July 2019 Results: Supervised by Thermal Engineering Center – KMUTT, Thailand)

Emission Performance



NOTE: Run No. 1 encountered soot built up which resulted in higher CO and subsequent reduction of burner input to 88kW with replacement of new filters every 30 minutes

Fuel Savings Performance

FUEL OIL	Pressure , burner barg	Time sec	Mass flow kg/s	Buner input kW	Water flow m3/h	inlet water temp °C	outlet water temp °C	Furnace temp 1 °C	Furnace temp 2 °C	O_2 %	CO ppm	NO ppm	Flue Temp. °C	Effciency (direct) %
Without Maximus 1	20	3600	0.0021	90.8691	1.85	28.83	66.63	649.52	560.07	5.93	639	150	119.4	89.36
Maximus 1	20	3600	0.002023	87.528579	1.85	28.62	65.34	664.4	563.49	6.3	657.8	145	107.2	90.12
Without Maximus 2	20	3600	0.002042	88.359382	1.85	28.64	61.49	668.97	572	5.7	715	147	123	79.86
Maximus 2	20	3600	0.002047	88.562756	1.85	28.53	64.59	643.48	575.79	5.6	502	153	120	87.46

$$EnergySaving = \frac{\eta_{maximus} - \eta_{without\ max.}}{\eta_{maximus}} x100$$

$$EnergySaving = \frac{87.46\ \% - 79.86\ \%}{87.46\ \%} \times 100 = 8.7\ \%$$

Saving = 8.7%

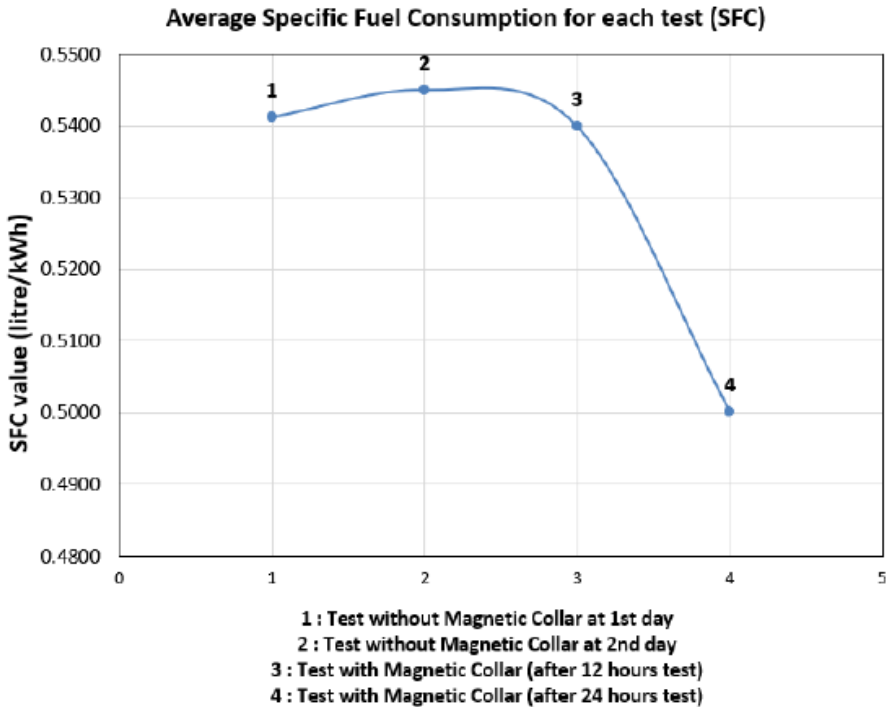
NOTE: Run No. 1 encountered soot built up which resulted in higher CO and subsequent reduction of burner input to 88kW and therefore was not included in the calculation due to difference of heat input

30 kVA Diesel Generator @ an Indonesian Coal Mine (Aug 2019 Results by BPPT – a Government Agency for the Assessment of Technology, Indonesia)

Brand: ADK Generator Fuel: B20

Fuel Savings Performance up to 8.2%

(during 4-days, 24 hr tests @ 30% Engine Load)



BPPT
BALAI BESAR TEKNOLOGI KONVERSI ENERGI
INOVASI ENERGI UNTUK INDONESIA

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Reducing Environmental Impacts with added Economic Benefit

South East Asia:
Major Customers & Trial Results
(*updated as of March 2025*)

Trial Results @ TOP GLOVE - MALAYSIA

(WORLD'S LARGEST GLOVE PRODUCER)

Installation @ Malaysia Head Quarter Operation *(Nov 2018)*





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Fuel: Natural Gas

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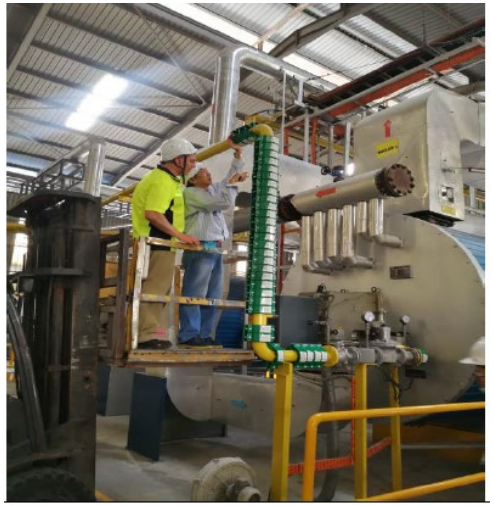
Trial Results @ TOP GLOVE - MALAYSIA

(WORLD'S LARGEST GLOVE PRODUCER)

Installation @ Malaysia Head Quarter Operation *(Nov 2018)*

(1) 3MWe Gas-Fired Boiler

Boiler Brand	China ChangZhou Soken Heating Boiler Co. Ltd
Model	YQW-3500
Rated power	3500 kW
Max operating pressure	1.0 MPa
Hydraulic pressure test	1.5 MPa
Max operating temp	320 C
Working media	Heat-transferred oil
Pipe connection DN	150 mm
Installation year	11/2014



Average reduction in natural gas consumption = 5.9 %
@ 80% Load, non-daily use

Trial Results @ TOP GLOVE - MALAYSIA

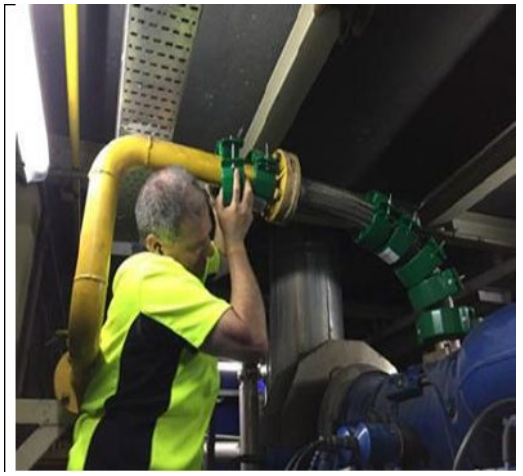
(WORLD'S LARGEST GLOVE PRODUCER)

Installation @ Malaysia Head Quarter Operation *(Nov 2018)*

(2) MWM 1.2 MW (CHP)

MODEL: MWM TCG 2020 V12

Engine type		TCG 2020 V12 50 Hz	TCG 2020 V12 60 Hz
Electrical output	kW	1200	1200
Thermal output ± 8%	kW	1190	1196
Electrical efficiency	%	43.6	43.4
Thermal efficiency	%	43.3	43.2
Total efficiency	%	86.9	86.6
Power to heat ratio	**	1.00	1.00



Average reduction in natural gas consumption = 2.02 %
@ 40% Load, non-daily use

Summary of Trial Results @ Royal Can Industries

Fuel: LPG

Royal Can Industries (Thailand) – M6 LPG-Fired Burner (1 MW)

(Installation – 27th Nov 2019: by Thermal Engineering Center – KMUTT, Thailand)

Overall Fuel Savings Performance 4.33 %

(From December 2019 Data)

Note: Based on Specific Energy Consumption (Kg/1000 Pass)

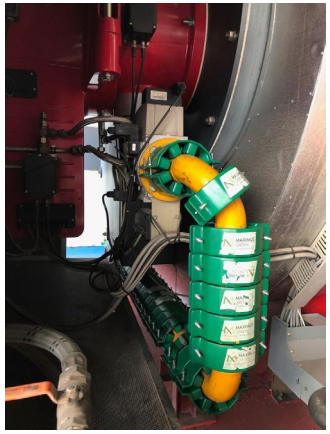
OPERATION (1-16th December)	SFC (kg/1000 Pass)	SAVINGS
BASE-LINE (Avg: Sept - Nov 2019)	23.823	4.33%
Trial Results (1-16 Dec 2019)	22.792	

Summary of Trial Results @ CPF Nongjok

CPF Nongjok (Thailand) – 8 MW Natural Gas Fired Boiler (New)

(Installation – 12th Nov 2019: by Thermal Engineering Center – KMUTT, Thailand)

Fuel Savings Performance: Nov = 2.15%



Note: Based on Specific Energy Consumption (m3/Ton Steam)

OPERATION (Nov - December)	SFC (m3 NG/Ton Steam)	SAVINGS
BASE-LINE (Avg: Sept - Oct 2019)	69.605	2.15%
Trial Results (17- 30 Nov)	68.108	

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CF RAYA COMPANY LIMITED

Summary of Trial Results @ Ampol Food

Fuel: Heavy Fuel Oil (HFO) - C

Ampol Food (Sampran, Thailand) – 6.8 TPH Fuel Oil-Fired Boiler

(Sept 2019 Installation: by Thermal Engineering Center – KMUTT, Thailand)

Overall Fuel Savings Performance 9.6 %

(@ 30% Average Boiler Load Output)

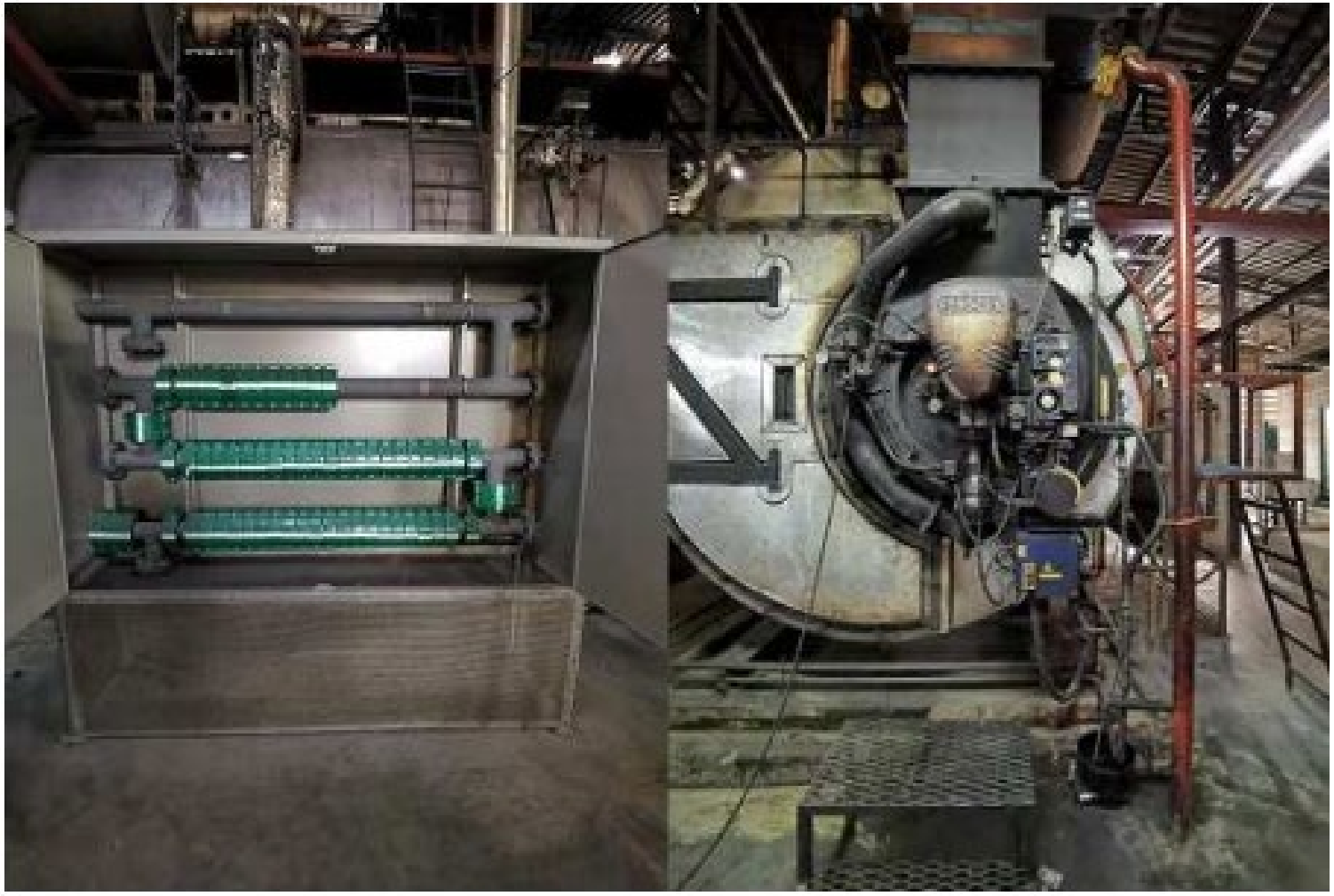
Note: A Back-Up boiler run from 1 – 24 hrs/day

OPERATION (September 15 – November 4)	SFC (L/Ton Steam)	STDEV	SAVINGS
> 5 hrs/day	72.04	+/- 5.8	6.48%
BASE-LINE (Before Installation: June 1 - August 31)	77.03	+/- 9	
Overall	72.95	+/- 7.5	9.60%
BASE-LINE (Before Installation: June 1- August 31)	80.70	+/- 16	

Summary of Trial Results @ DEESTONE (Om Noi Factory)

Deestone (Om Noi Factory, Thailand) – 15 Ton/hr Fuel-Oil Fired Boiler

(Installation – November 2021: by Thermal Engineering Center – KMUTT, Thailand)

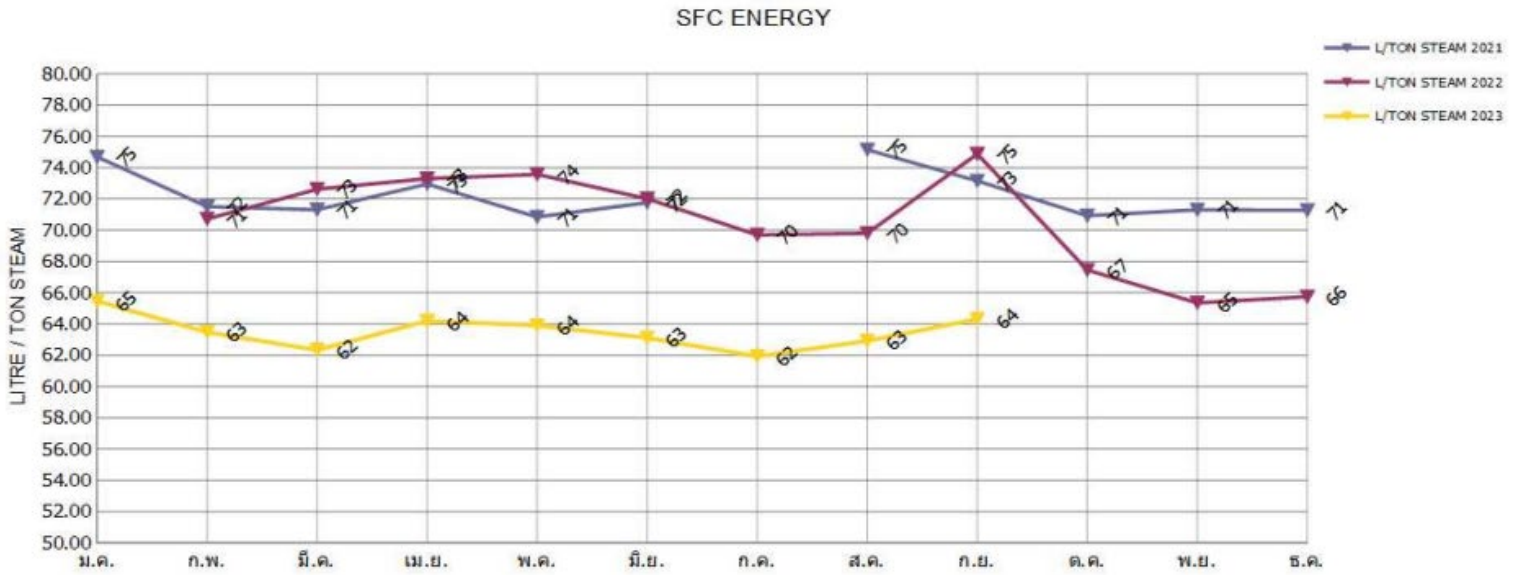


Deestone (Om Noi Factory, Thailand) – 15 Ton/hr Fuel-Oil Fired Boiler

(Installation – November 2021: by Thermal Engineering Center – KMUTT, Thailand)

ผลการดำเนินงาน

ปริมาณการใช้น้ำมันเตา Boiler No.03 ปี 2021 - 2023



Deestone (Om Noi Factory, Thailand) – 15 Ton/hr Fuel-Oil Fired Boiler

(Installation – November 2021: by Thermal Engineering Center – KMUTT, Thailand)

Overall Fuel Savings Performance over 1 Year Monitoring

(May 2022 – May 2023)

Operation Time	SFC (L fuel Oil/Ton Steam)	Savings
Base Line (Avg: Jan -Sept 2021)	69.66	8.57%
Actual Result (Avg: Feb – May 2023)	63.69	

$$= \frac{SEC_{Base\ Line} - SEC_{เดือนมกราคม\ -พฤษภาคม}}{SEC_{Base\ Line}} \times 100$$

ผลการประหยัด = **8.57%**

Note: Based on Specific Energy Consumption (L/Ton Steam)
The boiler runs 6 days/week (stop/start every Sunday/Monday)

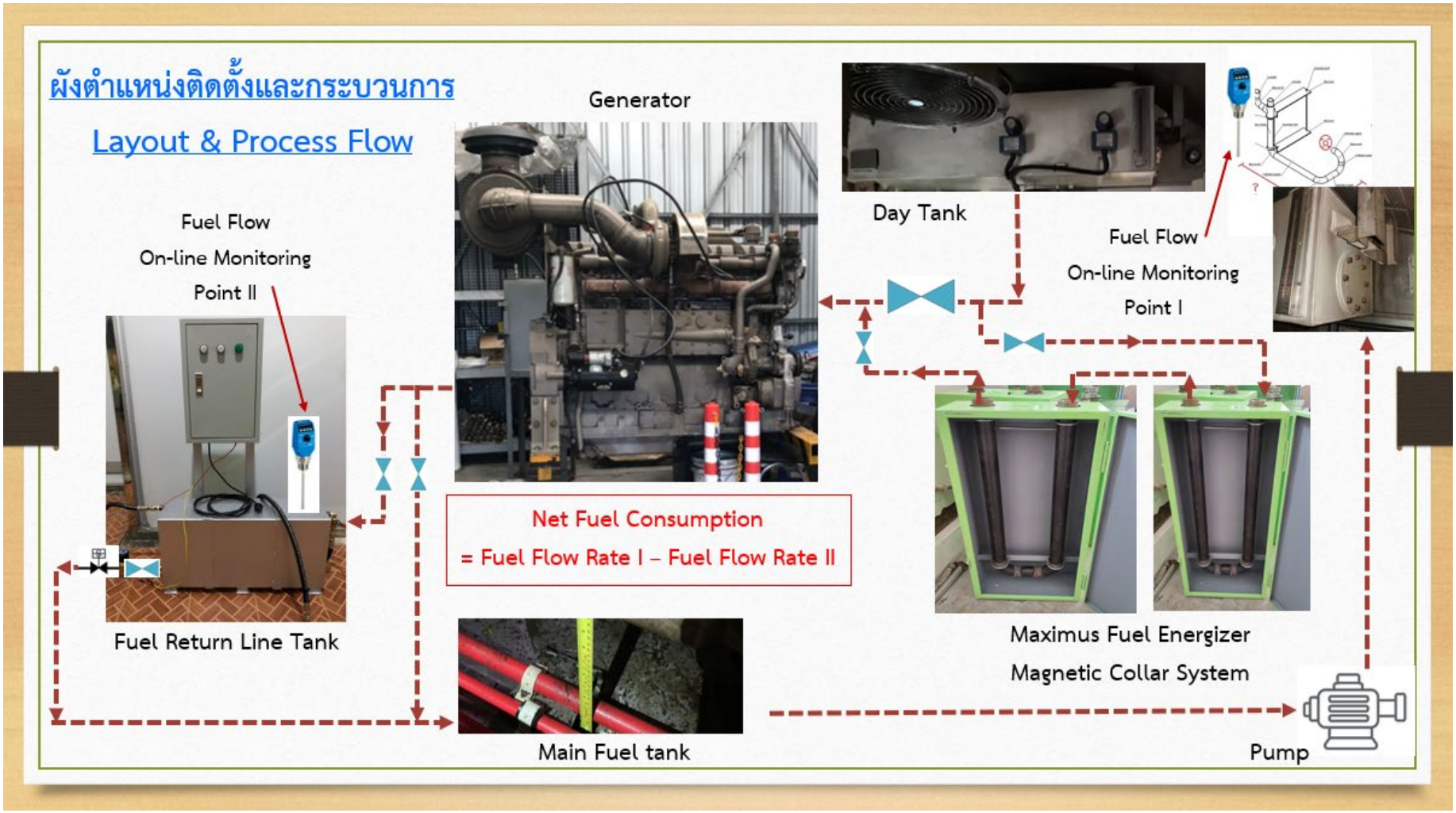
การรถไฟแห่งประเทศไทย
STATE RAILWAY OF THAILAND

Trial with Diesel Generators of a SRT Power Car

In March 2023, the installation work of Maximus Green Magnetic Collar System equipped with on-board and real-time monitoring systems had been commenced under collaboration with State Railway of Thailand (SRT) at the Power Car No. 8.

The Maximus Green Magnetic collar system was designed to be used with a diesel engine driving a 400kW generator. the system includes two fuel level measurement points - 1. Day tank and 2. Return line tank.

These points are used to determine the net fuel consumption in comparison to the kW output obtained from the generator, allowing for the measurement of Specific Energy Consumption (L fuel/kWh output). The installation including series of test runs had been completed in mid November 2023.


ผังตำแหน่งติดตั้งและกระบวนการ
Layout & Process Flow
Generator
Day Tank
Fuel Flow
On-line Monitoring
Point II
Fuel Flow
On-line Monitoring
Point I
Net Fuel Consumption
= Fuel Flow Rate I – Fuel Flow Rate II
Fuel Return Line Tank
Maximus Fuel Energizer
Magnetic Collar System
Main Fuel tank
Pump

The test run of the 400 kW diesel generator of the power car No. 8 of State Railway of Thailand (SRT) using Maximus Green Magnetic Collar System collected via the on- board & real-time monitoring system during 17th January – 15th August 2024 covering over 100,000 Km (100 trips) have been completed and results from the trip No. 52 – 100 have been summarized in the Table on the right.

As shown in this Table, the overall average Specific Energy Consumption (SEC) value of the total 100 trips (from 17th January – 15th August) is 0.486 L/kWh. From comparison with the baseline SEC value of 0.542 L/kWh, it can be calculated that, after implementing the Maximus Green magnetic collar system, there is a significant savings of 10.38 % in diesel fuel consumption!

Data Maximus SEC					Base Line SEC (L/kWh)
					0.542
Trip No.	Trip	Date	kW output	Net Fuel Consumption (L/hr)	Specific Energy Consumption (L/kWh)
52	Ubon	6-7May	106.50	51.249	0.481
53	Hatyai	8-9May	101.29	48.993	0.484
54	Ubon	10-11May	107.18	50.997	0.476
55	Hatyai	13-14May	93.67	46.007	0.491
56	Ubon	15-16May	92.42	45.181	0.489
57	Hatyai	17-18May	102.92	49.785	0.484
58	Ubon	19-20May	95.68	41.688	0.436
59	Hatyai	21-22May	97.31	48.776	0.501
60	Ubon	23-24May	84.51	40.482	0.479
61	Hatyai	25-26May	97.98	47.493	0.485
62	Ubon	27-28May	101.30	51.914	0.512
63	Hatyai	28-29May	98.49	47.974	0.487
64	Ubon	30-31May	91.45	46.360	0.507
65	Hatyai	2-3June	86.85	46.015	0.530
66	Ubon	4-5June	108.26	52.480	0.485
67	Hatyai	6-7June	105.03	48.326	0.460
68	Ubon	8-9June	91.16	46.272	0.505
69	Hatyai	10-11June	97.05	46.149	0.476
70	Ubon	12-13June	96.89	48.609	0.502
71	Hatyai	14-15June	105.59	53.372	0.505
72	Ubon	19-20June	91.87	45.995	0.501
73	Hatyai	21-22June	98.43	47.708	0.485
74	Ubon	23-24June	90.15	49.208	0.546
75	Hatyai	25-26June	80.61	40.651	0.504
76	Ubon	27-28June	95.60	46.551	0.487
77	Hatyai	30-1Jul	97.83	48.865	0.500
78	Ubon	2-3Jul	105.49	50.856	0.482
79	Hatyai	4-5Jul	94.56	45.142	0.477
80	Ubon	6-7Jul	103.76	49.187	0.474
81	Hatyai	8-9Jul	105.21	51.649	0.491
82	Ubon	10-11Jul	82.69	40.213	0.486
83	Hatyai	12-13Jul	78.62	38.017	0.484
84	Ubon	14-15Jul	91.41	47.566	0.520
85	Hatyai	15-16Jul	89.19	41.175	0.462
86	Ubon	17-18Jul	95.22	43.498	0.457
87	Hatyai	19-20Jul	85.98	42.015	0.489
88	Ubon	21-22Jul	90.91	42.774	0.470
89	Hatyai	23-24Jul	88.69	46.391	0.523
90	Ubon	24-25Jul	91.42	46.166	0.505
91	Hatyai	27-28Jul	90.91	42.664	0.469
92	Ubon	29-30Jul	76.96	41.011	0.533
93	Hatyai	31-1Aug	96.68	47.801	0.494
94	Ubon	2-3Aug	95.17	45.235	0.475
95	Hatyai	4-5Aug	90.74	44.504	0.490
96	Ubon	6-7Aug	89.60	43.875	0.490
97	Hatyai	8-9Aug	106.50	47.440	0.445
98	Ubon	10-11Aug	110.87	52.860	0.477
99	Hatyai	12-13Aug	95.39	45.874	0.481
100	Ubon	14-15Aug	98.77	46.218	0.468
Avg.			97.21	47.100	0.486
				Savings (%)	10.37

To clearly highlight distinguished performance of Maximus Green Magnetic Collar system, a normal distribution curve of Specific Fuel Consumption (SFC) of the total 100 trips (from 17th January – 15th August 2024) of Power Car No. 8 of State Railway of Thailand ("Maximus Curve") has been created and plotted in comparison with that of power car No. 8 without using Maximus Green Magnetic Collar system ("Baseline Curve") as shown below.

To affirm the results, State Railway of Thailand (SRT) has already issued a certificate certifying superior fuel saving performance of Maximus Green Magnetic Collar system in early March 2025 – which stands at 10.38% in overall.

SEC before using Maximus Magnetic Collar System

SEC (Mean) = 0.542 L/kWh (Base Line)

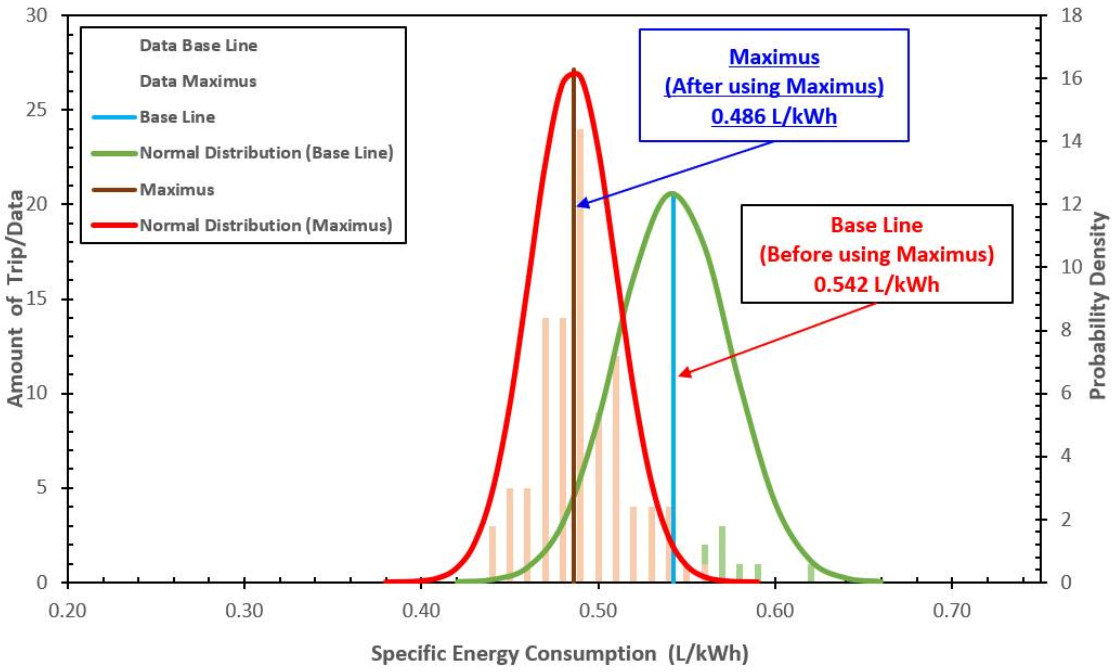
** รวม 19 เที่ยว (อุบล 8 เที่ยว, หาดใหญ่ 10 เที่ยว) **

SEC after using Maximus Magnetic Collar System

SEC (Mean) = 0.486 L/kWh

ผลการประหยัด $= \frac{0.542 - 0.486}{0.542} \times 100$

*** ผลการประหยัด = 10.64 % ***



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Reducing Environmental Impacts with added Economic Benefit

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- Improve your fuel and burn less as a result
- Reduce your carbon footprint
- Maintenance Free
- The product requires no electrical supply
- Boilers do not need to be shut down to fit
- A long term solution
- eeMGee remains if you upgrade your systems
- Take the eeMGee with you if you move site

Thank You!
Q&A

MAXIMUS GREEN

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