Greentech Fuel Saver

Fuel Test Manual

Distributor Edition · How to test gasoline vehicles, diesel vehicles, generators and excavators

1. **Before you test**, pick the method by machine and tank size
2. **Agree with the customer first** on how long to log and how to calculate
3. **Three kinds of result**: measured / right direction, keep logging / cannot confirm an improvement



v1 · November 5, 2026

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Contents

Read the principles in Chapter 1 first, then turn to the chapter for the customer's machine. The last page of each chapter is the **customer fuel log** (with instructions); Appendix C has **blank paper log sheets** to photocopy for customers.

Test statement

Fuel tests in real operating conditions 3

Chapter 1 Principles: measuring accurately

Fill to full at the start and the end, and fuel pumped is fuel used 4

Every fill-up has an error: the more fuel burned, the more accurate 5

Nothing shows: the ruler is coarser than the thing measured 6

Less fuel goes into a hot tank 7

Five rules, the same for every machine 8

Chapter 2 Before you test

Agree on three things with the customer 9

Pick the method by machine and tank size 10

Test plan 11

Chapter 3 Gasoline and small-tank diesel vehicles (under 100 L)

Gasoline: one run shows it, repeat 3 times 12

Measured: two gasoline pickups 13

Diesel minibus: the same run shows nothing 14

The right method: morning fill-ups, 3 runs per vehicle 15

Customer fuel log 16

Chapter 4 Buses and trucks (over 100 L)

Buses and dump trucks: one run shows nothing 17

Two methods: log 4 weeks, or weigh for one day 18

Measured: two bus companies 19

Wrong example: a fixed 90 L every time 20

Why it cannot be measured 21

The right way: follow the Fuel log 22

Check it yourself before sending 23

Customer fuel log 24

Chapter 5 Generators

Compare liters per kWh 25

Method 1: fill to level, read hour and kWh meters 26

Demo log: 200 kW over 8 days 27

Only an hour meter, or only monthly reports 28

Method 2: load bank plus scale 29

Before and after: four periods 30

Customer fuel log 31

Chapter 6 Excavators and construction equipment

Two test methods, the owner chooses 32

How to run the two methods 33

How to read it: every month before install 34

Four excavators, four results 35

Customer fuel log 36

Chapter 7 Reading the result, talking to the customer

Three kinds of result: measured, right direction, cannot confirm 37

What to tell the customer 38

Chapter 8 Sending data to HQ

Online log or Excel, the whole period 39

Chapter 9 Common mistakes

The 13 things that most often spoil a result 40

Appendix A Formulas

Vehicles, excavators 41

Generators, sanity check 42

Appendix C Paper log sheets (photocopy for customers)

Vehicles (gasoline, diesel, buses, trucks) 43

Generators 44

Excavators, construction equipment 45

Please stop sending customers the old "PERFORMING OVER THE ROAD TEST" instructions.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Test statement

Unlike an EPA controlled-laboratory test or a standardized SAE J1321 test, a fuel consumption test on real roads and in day-to-day operation cannot fully control the route, temperature, wind, driving habits, how often the vehicle accelerates and brakes, the load, the tank's characteristics and other variables, all of which can affect measurement accuracy and the fuel consumption result.

This manual sets out fuel test methods suited to real operating conditions, to help distributors, fleets and everyday users keep measurement error as low as possible, hold test conditions steady, and record fuel consumption before and after Greentech is installed, so that actual fuel savings and operating benefits can be assessed in a more reliable and objective way.

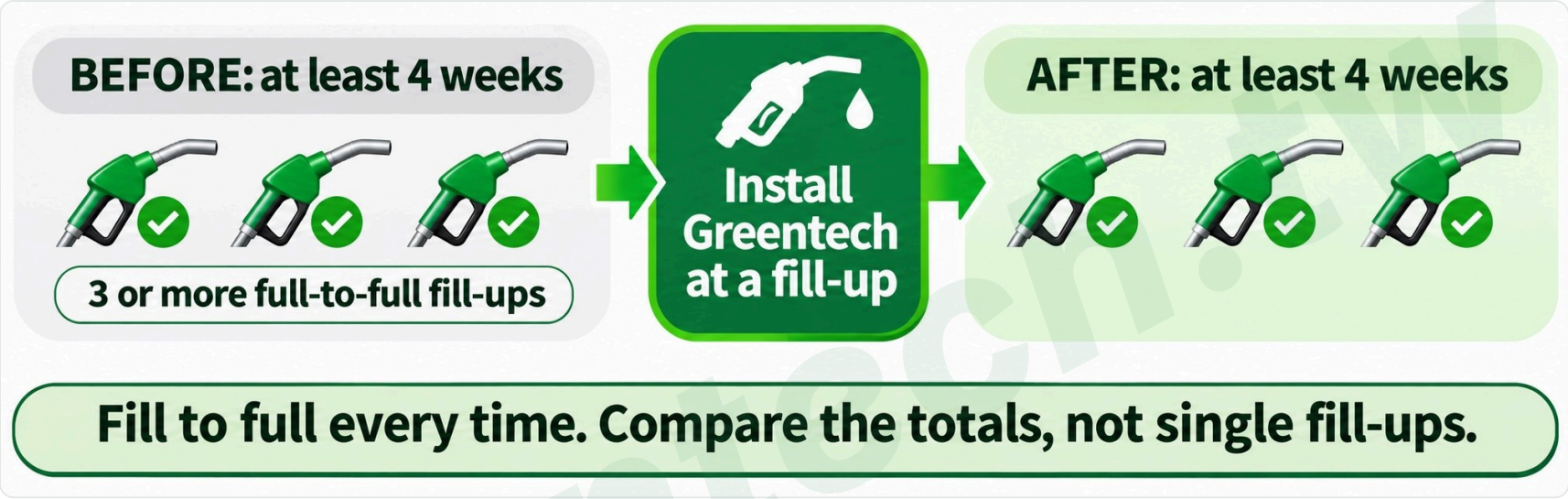
A long-term test should fill the tank to full at every fill-up where possible and record every liter pumped. Where operating constraints make filling to full every time impossible, the start and end of each test period must at least use the same verifiable full-tank condition, and every fill-up and fuel draw during the period must be recorded in full. The comparison periods should burn enough fuel to keep the fill-up error from affecting the final result.

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

The principle: fill to full at the start and the end, and fuel pumped is fuel used



How fuel used is calculated

Fuel used = fuel pumped + fuel in the tank at the start − fuel in the tank at the end. **Fill to full at the start and the end** and the last two terms are equal and cancel out: fuel pumped is fuel used.

How consumption is calculated (by machine)

Cars, buses, trucks: **km/L = total km ÷ total fuel**; **L/100 km = total fuel ÷ total km × 100**

Generators: **L/kWh = total fuel ÷ total kWh generated**

Excavators, construction equipment: **L/h = total fuel ÷ total engine hours**

Always use the totals for the whole period, never a single fill-up.

How to compare

Measure one period before install and one after, with the route and the work kept as similar as possible. **Each machine against itself only**, and every number of every machine listed.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Every fill-up has an error: the more fuel you burn, the more accurate the result

Rule: burn at least two full tanks between the two fills you compare.
Bus 430 L → about 860 L → about 2,900 km → about 24 runs of this route. Or weigh the fuel: one day per vehicle.

Fill error = nozzle click-off, fuel temperature, parking slope.
Source: greentech.tw/how-to-measure-fuel-savings/

Each fill-up is off by roughly the same few liters (nozzle click-off, fuel temperature, parking slope). The more fuel you burn, the smaller that error is as a share.

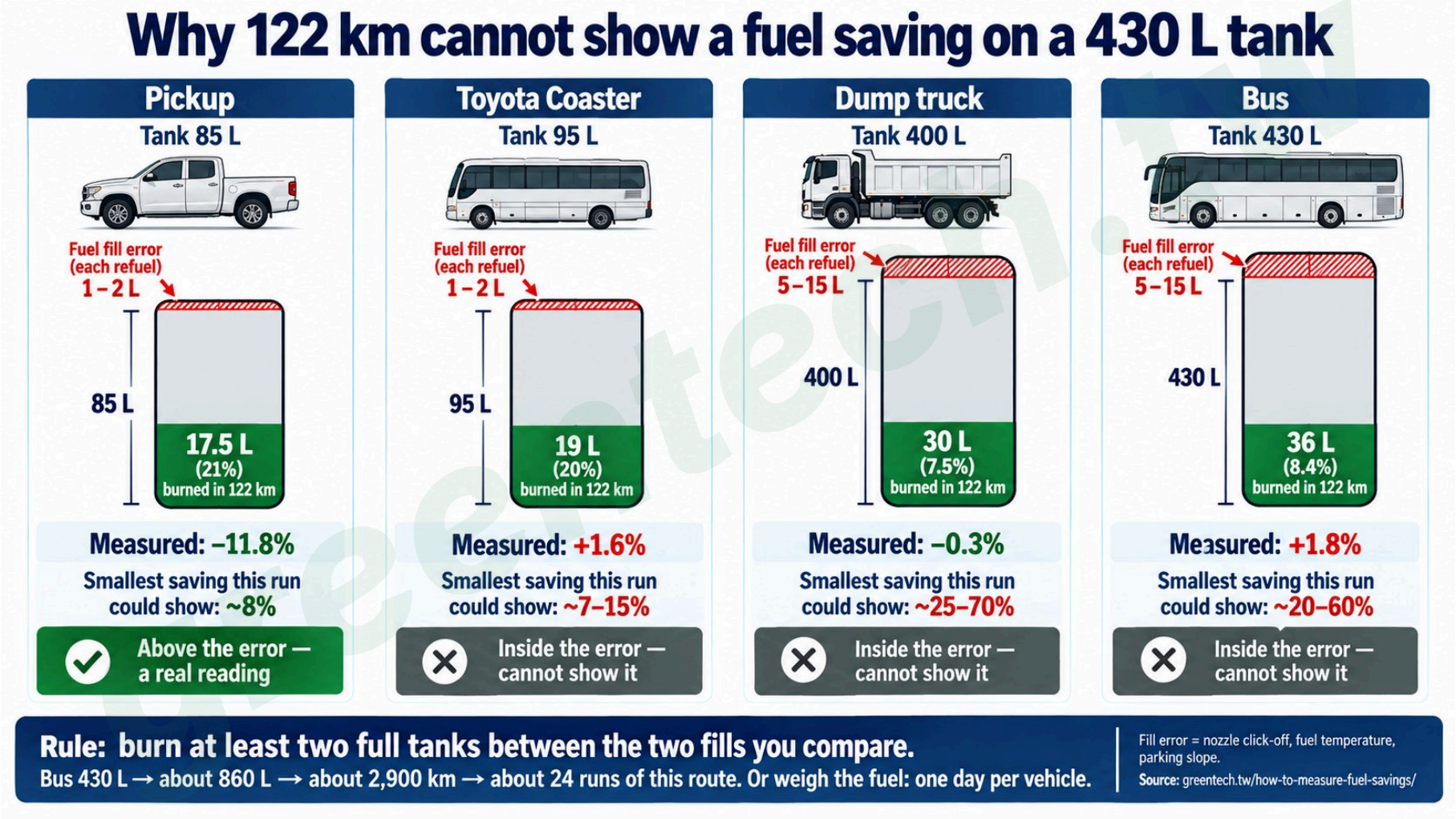
Tank	Fuel to burn between the two fill-ups you compare	In practice
85–95 L **pickups, minibuses**	At least 1/4 tank per run, 3 runs before and 3 after For more accuracy: two tanks, about 170–190 L	Short test, 3 runs; or log 4 weeks
About 200 L **medium trucks**	Two tanks, about 400 L	Log 4 weeks
400–430 L **buses, dump trucks**	Two tanks, about 800–860 L about 24 runs on the same 122 km route	Log 4 weeks, or weigh the fuel for one day

If that is not possible, weigh the fuel

Connect the engine's supply and return lines to a portable tank sitting on an electronic scale, and measure fuel by weight. Nozzle, fuel temperature and foam no longer matter. It uses a weighing principle similar to SAE J1321, accuracy about ±1%, one vehicle in one day (page 18).

Moletech does not make products for any other company. Only Greentech is genuine.
Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Nothing shows because the ruler is coarser than what you are measuring

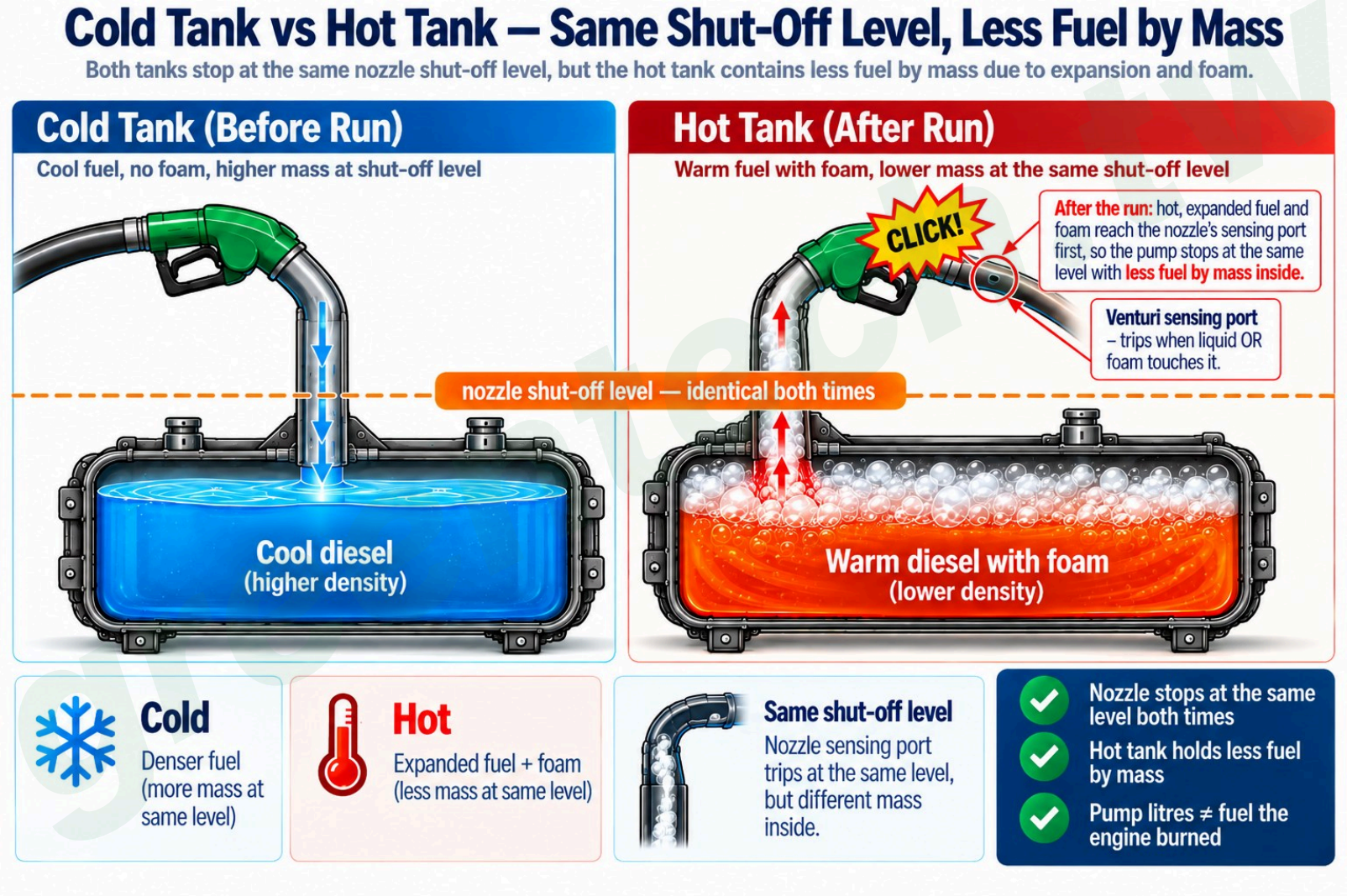


Example: nothing shows Same fleet, same day, same method, same 122 km route. The pickup burned 21% of its tank in one run; the saving was bigger than the fill-up error, so it showed. The bus and the dump truck burned under a tenth of a tank; the fill-up error was bigger than the saving, so nothing showed. **"Nothing shows" does not mean no effect, and it does not mean an effect. It means this ruler cannot measure it.**

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Fill a diesel right after a run and less fuel goes in



A diesel engine sends hot fuel back to the tank. After a run the fuel is warm, expanded and foamy. The nozzle clicks off at the same level, but there is less fuel inside. **Fill a diesel both times in the morning before the first trip: the next morning, before the engine is started.**

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Five rules, the same for every machine

① Fill to full every time if you can: first click, no topping off

Only when the tank comes back to the same level every time is fuel pumped equal to fuel used. If that is not possible, use the same full-tank condition at the **start and end** of each period and log every fill-up and draw in between. Generators: fill to the same level.

② Cold tank: fill in the morning before the first trip, not right after the last trip

Fuel is hot and expanded after a run, so less goes in (page 7). When you fill, fill in the morning before the first trip.

③ One row for every fill-up

Date, odometer (or hour meter, kWh meter), liters. A fill-up that missed a rule is still logged, with the reason in Notes.

④ At least 4 weeks before and 4 weeks after install

The bigger the tank, the more fuel has to be burned: at least two tanks between the two fill-ups you compare (page 5).

⑤ Each machine against itself only

Look at the totals for the whole period, not a single fill-up. List every number of every machine, including the weaker ones.

If that is not possible, weigh the fuel

Put a fuel drum on an electronic scale and measure fuel by weight (a weighing principle similar to SAE J1321): an answer in one day, accuracy about ±1% (page 18).

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Before you test, agree on three things with the customer

If the customer does not ask for a test, there is no need to run one. The product has been measured in many fleets; the case studies are on greentech.tw. Arrange a test when the customer wants to see their own numbers before buying.

1 Which method

Use the table on page 10: machine and tank size. Once the method is set, it does not change.

2 How long to log

Say up front: "this vehicle needs 4 weeks." The first few fill-ups will jump around. That is normal. What counts is the total for the whole period.

3 How to calculate

Which number (km/L, L/kWh, L/h) and which two periods, written down in advance. Not chosen after seeing the numbers.

Measure the baseline first, then install

Fuel treated by the Greentech Fuel Saver keeps its effect. If the device is removed later, those numbers cannot be used as a new baseline.

After installing, wait about 30 minutes

Let the Greentech Fuel Saver sit in the tank for about 30 minutes so the fuel already in the lines runs through, then start logging.

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Pick the right method for the machine and the tank size

Machine	What to compare	Method	Minimum logging	Page
Gasoline vehicle tank under 100 L	Kilometers per liter (km/L)	Fill-to-full, log 4 weeks In a hurry: short test, 3 runs before and 3 after per vehicle	4 weeks; or 3 runs	12
Diesel vehicle tank under 100 L	Kilometers per liter (km/L)	Fill-to-full, log 4 weeks In a hurry: short test with morning fill-ups, 3 runs before and 3 after per vehicle	4 weeks; or 3 runs	14
Diesel vehicle tank over 100 L (trucks, buses)	Kilometers per liter (km/L)	Fill-to-full, log 4 weeks, burn at least two tanks between the two fill-ups you compare In a hurry: weigh the fuel Do not pump a fixed 90 L every time (page 20)	4 weeks; or 1 day on a scale	17
Generator	Liters per kWh (L/kWh) liters per hour only if there is no kWh meter	Fill to the same level every time, read the hour meter and kWh meter together In a hurry: load bank plus scale	4 weeks and 100+ running hours before install, the same after; or 1–2 days	25
Excavator construction equipment	Liters per engine hour (L/h)	A Normal work: read the hour meter and log fuel every month (take KOMTRAX data too) B In a hurry: fixed work cycle plus weighed fuel, a few hours (optional)	A: baseline from the last 3–6 monthly reports; at least 2 monthly reports after install B: half a day to a day	32

Why a bigger tank needs a longer log: each fill-up is off by roughly the same few liters. The more fuel you burn, the smaller that error is as a share. In a hurry, weigh the fuel.

Designed around a 6% saving: the method has to be able to tell a 6% difference apart. A gasoline tank over 100 L follows row 3.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Test plan: fill it in before the test, one copy each for the customer and the distributor

Customer / contact	_____
Machine	Make, model, year _____
Fuel / tank	☐ Gasoline ☐ Diesel Tank _____ L
Method	☐ Fill-to-full, 4 weeks ☐ Short test, 3 runs ☐ Weighed fuel ☐ Generator fill-to-level (read kWh meter) ☐ Load bank plus scale ☐ Monthly reports
Number compared	☐ km/L ☐ L/kWh ☐ L/h
Baseline period	_____ to _____ (at least 4 weeks)
Installation	Date _____ Model _____ Odometer / hour meter _____
Settling period (listed separately)	_____
Comparison period	_____ to _____
Who logs, how it is sent	_____ ☐ Online fuel log ☐ Excel ☐ Photo of the paper sheet
Signature / date	Customer _____ Distributor _____

What to tell the customer

"This vehicle needs 4 weeks, and we look at the 4-week total. The first few fill-ups will jump around; that is normal. When the result is in, we go through it together, every entry listed."

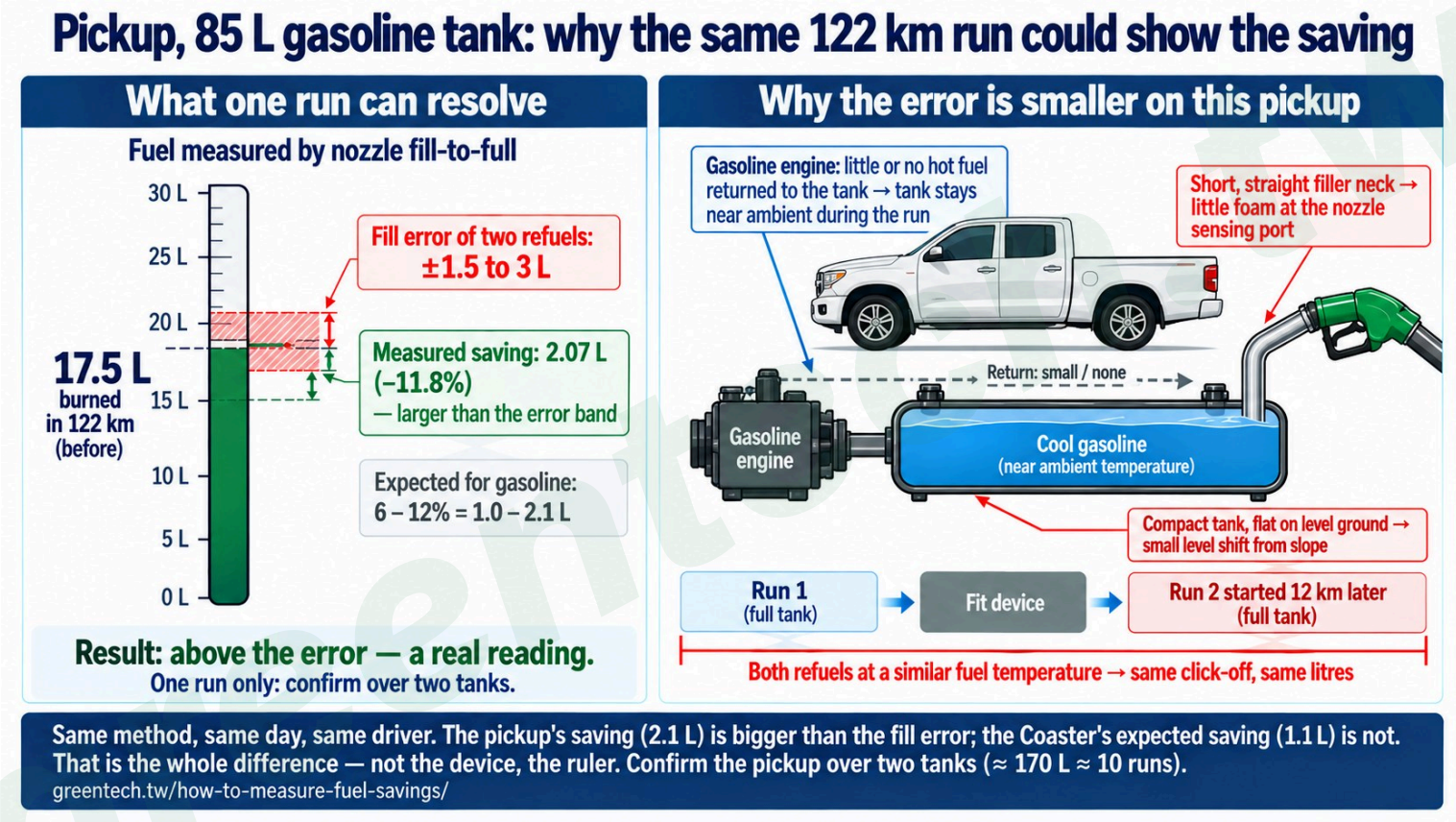
List the weaker numbers too. The customer trusts the good result only when they can see everything.

Set the method in advance. Which two periods and which number go on this sheet, and the result is calculated the way the sheet says.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Gasoline vehicles (tank under 100 L): one run shows it, repeat 3 times



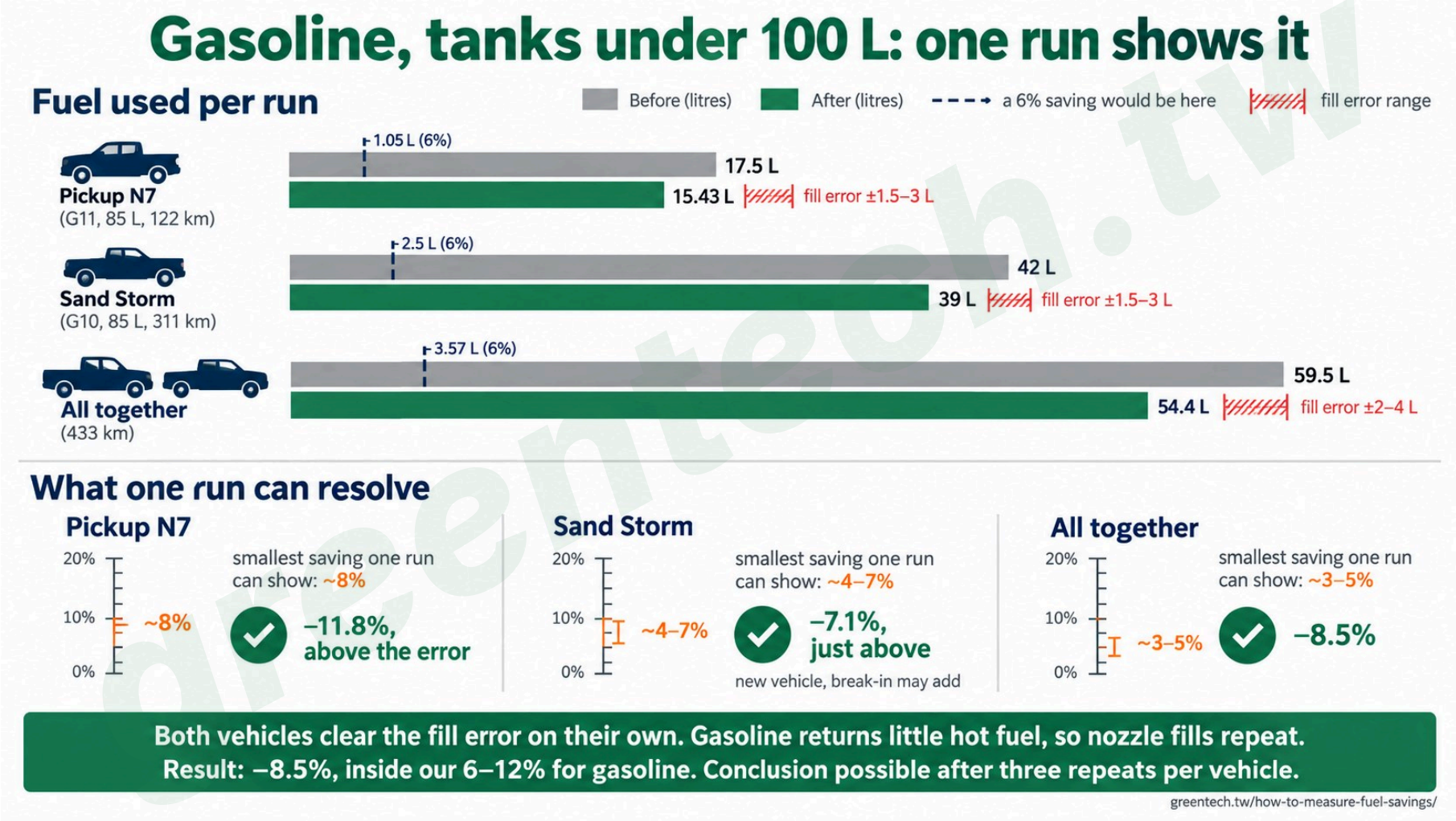
A gasoline engine returns almost no hot fuel and has a short filler neck, so two fill-ups click off at a very consistent level. One run is enough to see it.

1. Same gas station, same pump, fill to the **first click**, no topping off.
2. Fixed route, same driver, similar load, same tire pressure and A/C setting.
3. Burn at least **1/4 tank** per run; 3 runs before install, 3 runs after.
4. Compare **total km ÷ total liters**. Do not average the percentage of each run.
5. If you would rather skip the short test, log 4 weeks the normal way.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Measured: two gasoline pickups, 8.5% less fuel combined

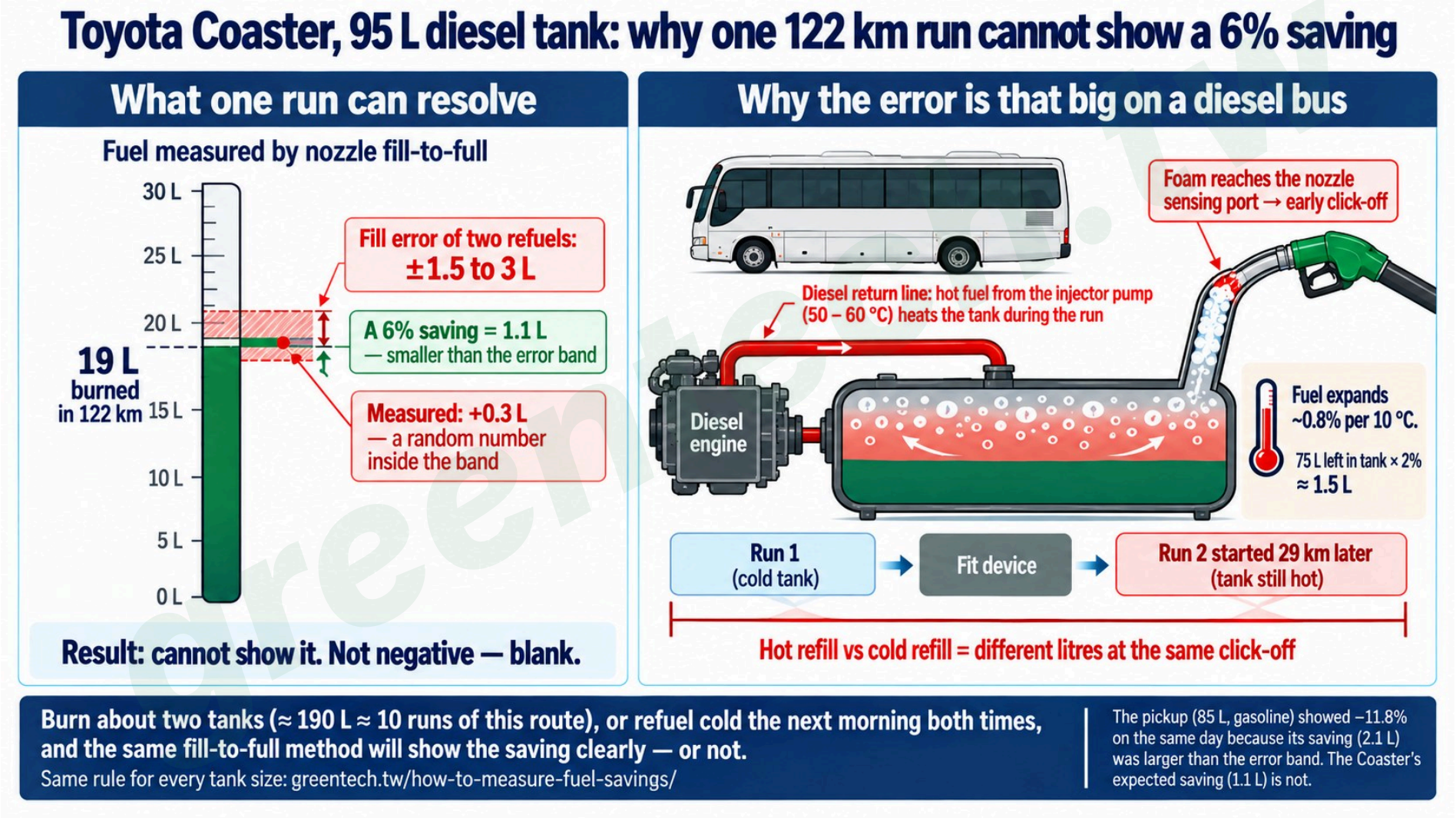


Success case Two gasoline pickups (85 L) in an African fleet. Each one beat the fill-up error on its own: Pickup N7 used 11.8% less, Sand Storm 7.1% less; combined 59.5 L → 54.4 L, **8.5% less fuel**. Sand Storm is a new vehicle, so part of that may be break-in; 3 runs per vehicle makes the result more solid.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Diesel minibus (95 L): the same run shows nothing

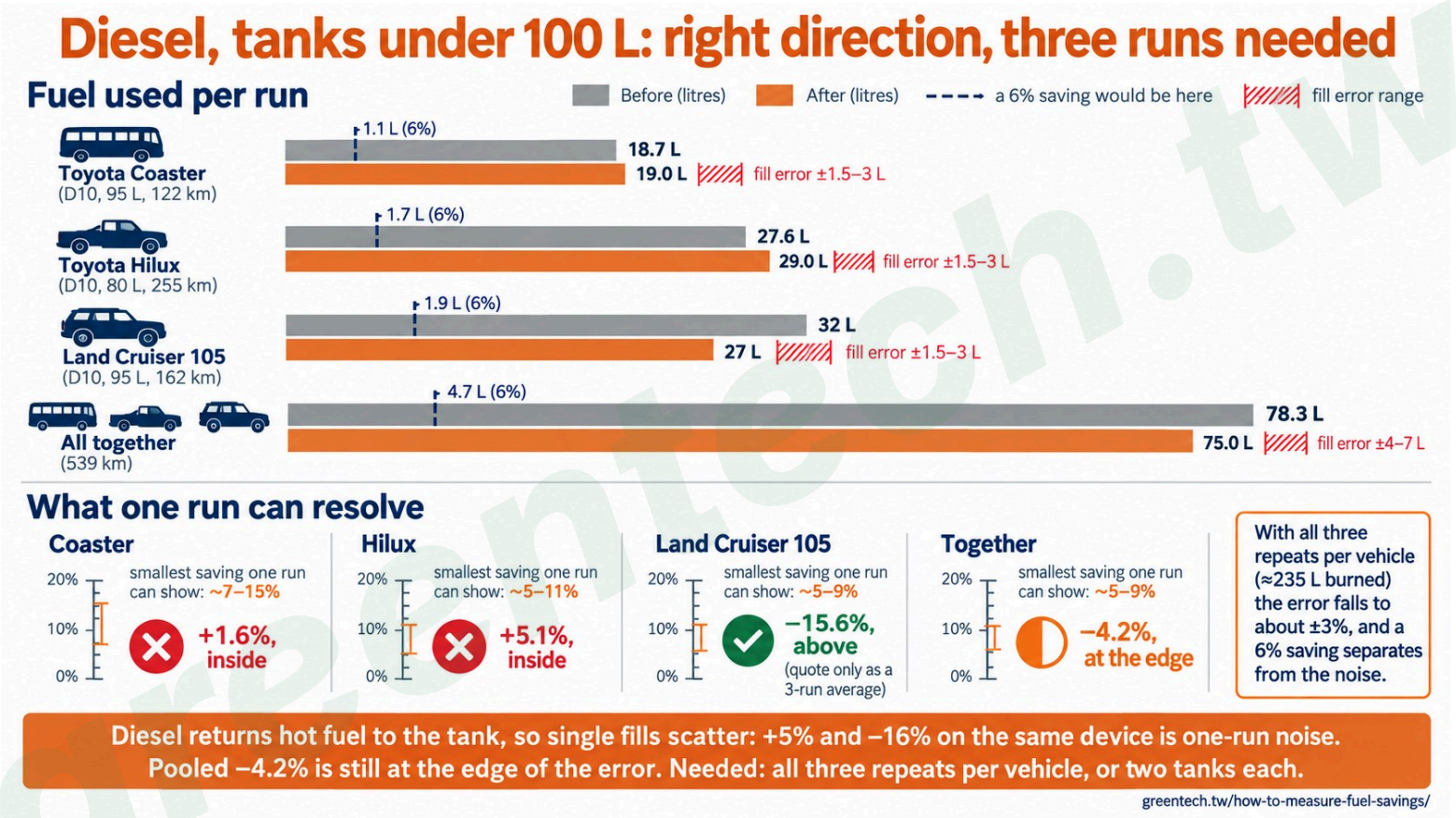


Example: nothing shows Same day, same route, same method. The diesel Coaster burned 19 L in one run; a 6% saving is only 1.1 L, smaller than the error of two fill-ups (±1.5–3 L). The +1.6% measured is a random number inside the error: **not a saving, and not the absence of one.**

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

The right method: fill in the morning before the first trip, 3 runs per vehicle, averaged



The right method Three diesel vehicles, one run each, scattered from +5% to −16%; the combined −4.2% is still at the edge of the error. Put all 3 runs per vehicle together and the error shrinks to about ±3%.

1. Both fill-ups **in the morning before the first trip**, never right after a run.
2. Same pump, first click, no topping off.
3. Burn at least 1/4 tank per run; **3 runs before and 3 after** per vehicle, compare total km ÷ total liters.
4. For more accuracy: log 4 weeks.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Gasoline and small-tank diesel vehicles (tank under 100 L): fuel log

Follow these and nothing goes wrong

1. Fill to full every time: same pump, first click, no topping off. Done that way, check "Full tank"; a fill-up that was not to full is still logged, unchecked, with the reason in Notes.
2. Fill in the morning before the first trip, not right after the last trip (the fuel is still hot). A morning fill-up is a cold tank: check "Cold tank"; a must for diesels.
3. One row per fill-up: vehicle ID, date, odometer, liters; Period = Before.
4. At least 4 weeks before install, at least 3 full-to-full fill-ups per vehicle (500 km or more).
5. Install Greentech at a fill-up: that row is still Before, with "Greentech installed" in Notes. Every row after that is After, for at least another 4 weeks.
6. Keep route, load, tire pressure and A/C as consistent as you can; note any change.

Fuel log

one row per fill-up; "Full tank" and "Cold tank" checked on every row

Vehicle ID _____ Measured by: km Fuel: ☐ Diesel ☐ Gasoline ☐ LPG

Greentech model _____ Installed on _____

Scan for the Excel

Vehicle ID	Date	Period (Before / After)	Odometer (km)	Liters filled	Full tank? first click	Cold tank? morning, before first trip	Notes
EXAMPLE-1	2026-08-03	Before	29,047	62.0	✓	✓	Start (not counted)
EXAMPLE-1	2026-08-31	Before	30,190	60.5	✓	✓	Greentech installed
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	

Yellow = you fill in Blue = example

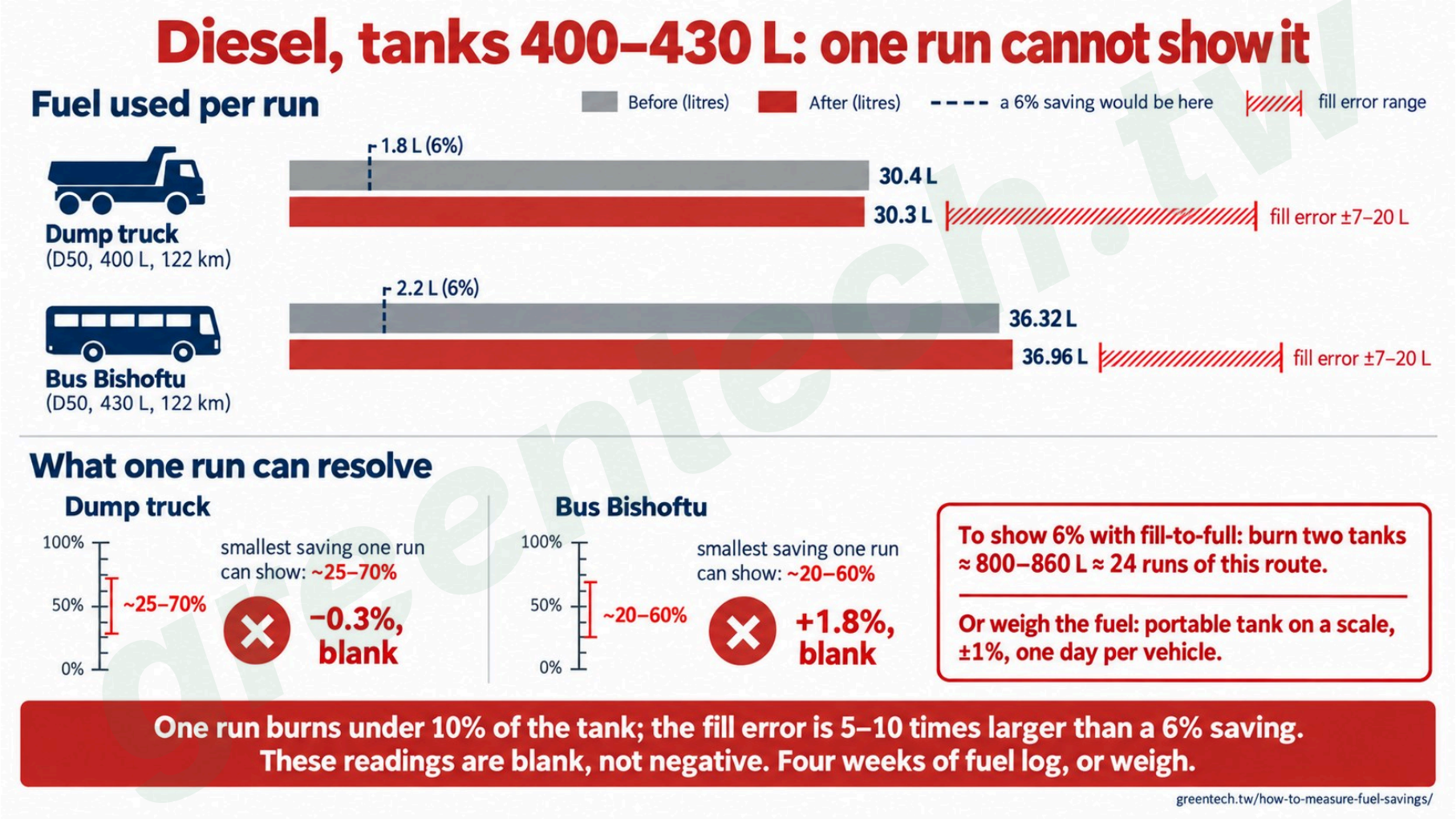
Type it into Excel (**Download the Excel fleet worksheet ↓**): the Excel has the same two columns, pick Yes / No as on paper.

Distributor _____ Phone / Email _____

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Buses and dump trucks (400–430 L): one run shows nothing

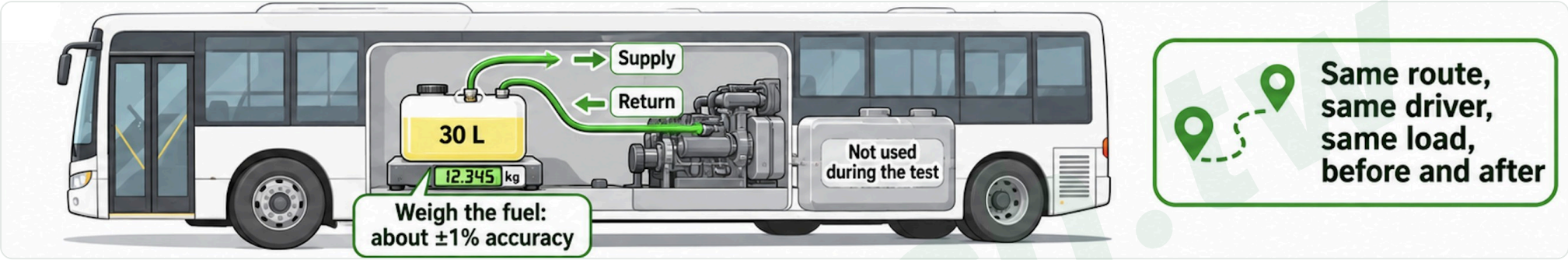


Example: nothing shows One run burns under a tenth of the tank (30–36 L); a 6% saving is only about 2 L. Two fill-ups of a 400 L tank can each be off by 5–10 L, so the error is several times the saving (that multiple is from this case; it changes with the tank and the fuel burned). The −0.3% and +1.8% measured **cannot be judged reliably: not negative, not positive.**

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Two methods for big tanks: log 4 weeks, or weigh the fuel for one day



Method A · Log fill-ups for 4 weeks

1. Log every fill-up of every vehicle: date, odometer, liters. Fill in the morning before the first trip (cold tank), same pump, first click, no topping off.
2. At least 4 weeks and at least 3 full-to-full fill-ups before install. If fuel records already exist, use the same vehicles' records from the last 1–3 months in a similar season.
3. At least 4 weeks after install, burning at least two tanks between the two fill-ups you compare.
4. Compare total km ÷ total liters for the whole period, not two single fill-ups.
5. Fill to full every time if you can. If not, the start and end of each period must be filled to full and every fill-up in between logged; pumping a fixed amount without filling to full at the start and end cannot tell you how much fuel was used (wrong example, page 20).

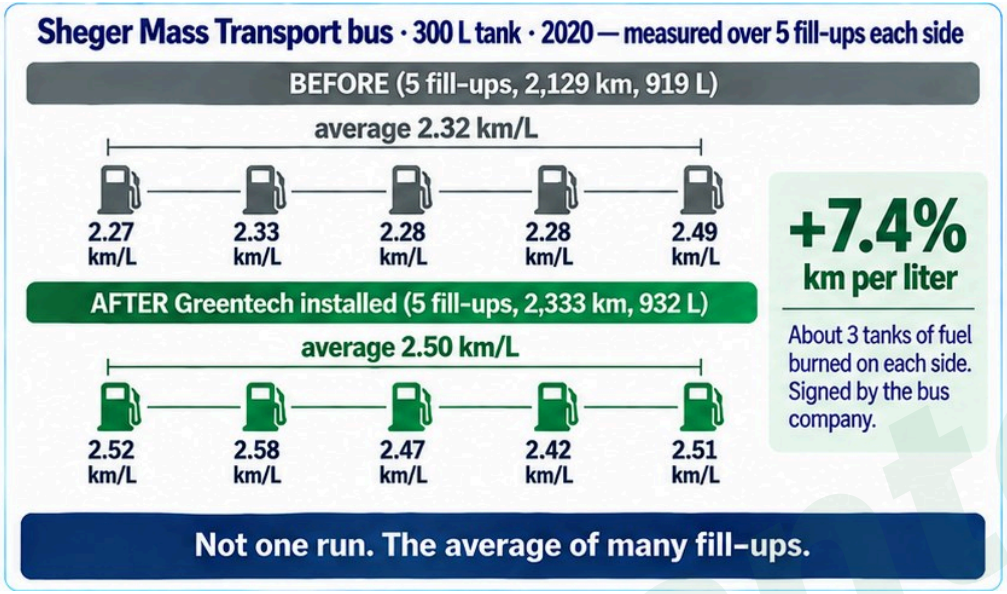
Method B · Weigh the fuel for one day (picture above)

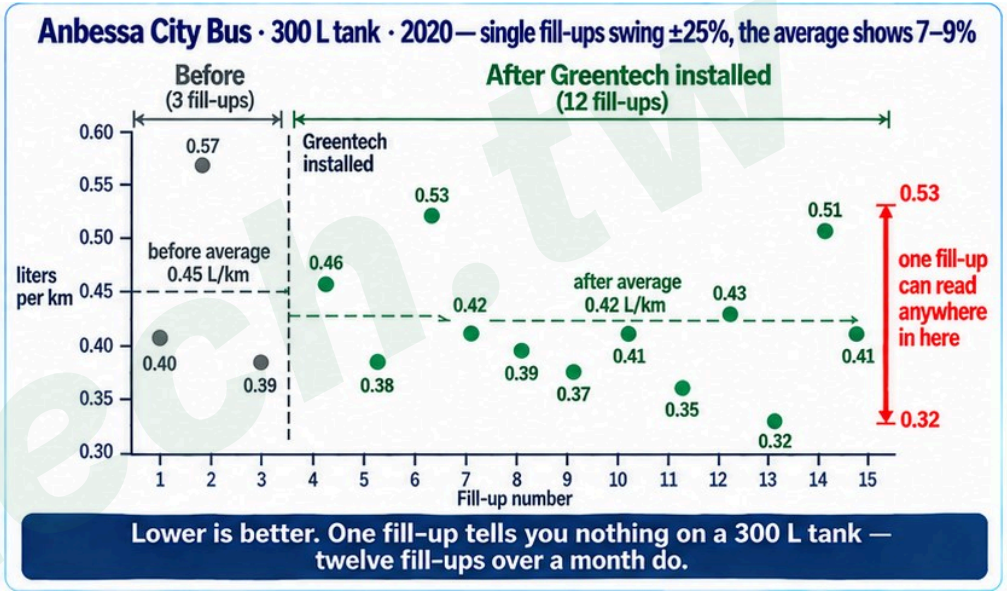
1. Put a portable tank (20–40 L) on an electronic scale with 10 g resolution or finer.
2. Connect the engine's supply and return lines to the portable tank; the vehicle's own tank is not used during the test.
3. Same route, same driver, same load, same time of day; one run before install and one after. The route can be shorter than 122 km.
4. Measure fuel by weight (a weighing principle similar to SAE J1321, not the standard's full procedure), accuracy about ±1%: a 6% saving shows clearly in one day.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

The right method: two bus companies logged many fill-ups and looked at the average





Success case · The right method · Two bus companies in Ethiopia, both running 300 L coaches

Sheger Bus · 7.4% more km per liter

5 fill-ups before install and 5 after, about 3 tanks each. Report signed by the bus company.

Anbessa Bus · 7–9% less fuel

3 fill-ups before install, 12 after, about one month. Single fill-ups jumped between 0.32 and 0.53 L/km.

Neither company looked at one run. They looked at the average of many fill-ups. That is how a big tank is measured.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Wrong example: a fixed 90 L every time, so fuel used was never measured

Wrong example A bus company's coach (400 L tank), logged for about 3 weeks before and after install in 2024. Almost every fill-up was a fixed 90 L, never to full. Put into the standard test table, **the "fuel used" column cannot be filled in**:

Before install · Feb–Mar 2024

Date	Pumped (L)	Odometer	Since last (km)	Fuel used	Liters per km	km per liter
2/22 start	90	253,290				
2/23	90	253,482	192	*not measured*	—	—
2/25	86	253,544	62	*not measured*	—	—
2/27	90	253,661	117	*not measured*	—	—
3/1	90	253,846	185	*not measured*	—	—
3/4	73	253,909	63	*not measured*	—	—
3/6	90	254,009	100	*not measured*	—	—
3/9	75	254,220	211	*not measured*	—	—
3/11	90	254,357	137	*not measured*	—	—
3/12	78	254,467	110	*not measured*	—	—
3/13	90	254,535	68	*not measured*	—	—
3/14	64	254,685	150	*not measured*	—	—
Total start not counted	**916**		**1,395**	**not measured**	**no result**	**no result**

"Fuel used" can only be filled in when every fill-up goes to full. This log pumped a fixed 90 L almost every time, so the whole column reads "not measured" and the two columns after it have no result. Why: page 21.

After install · Mar–Apr 2024

Date	Pumped (L)	Odometer	Since last (km)	Fuel used	Liters per km	km per liter
3/18 start	90	255,069				
3/19	90	255,164	95	*not measured*	—	—
3/20	90	255,266	102	*not measured*	—	—
3/22	90	255,443	177	*not measured*	—	—
3/23	**90**	**255,728**	**285**	*not measured*	—	—
3/25	90	255,825	97	*not measured*	—	—
3/26	90	256,014	189	*not measured*	—	—
3/27	74	256,111	97	*not measured*	—	—
3/29	90	256,392	281	*not measured*	—	—
3/30	90	256,539	147	*not measured*	—	—
3/31	90	256,708	169	*not measured*	—	—
4/1	90	256,862	154	*not measured*	—	—
4/2	90	256,990	128	*not measured*	—	—
4/3	90	257,220	230	*not measured*	—	—
4/4	**90**	**257,296**	**76**	*not measured*	—	—
4/5	90	257,469	173	*not measured*	—	—
4/7	90	257,615	146	*not measured*	—	—
Total start not counted	**1,424**		**2,546**	**not measured**	**no result**	**no result**

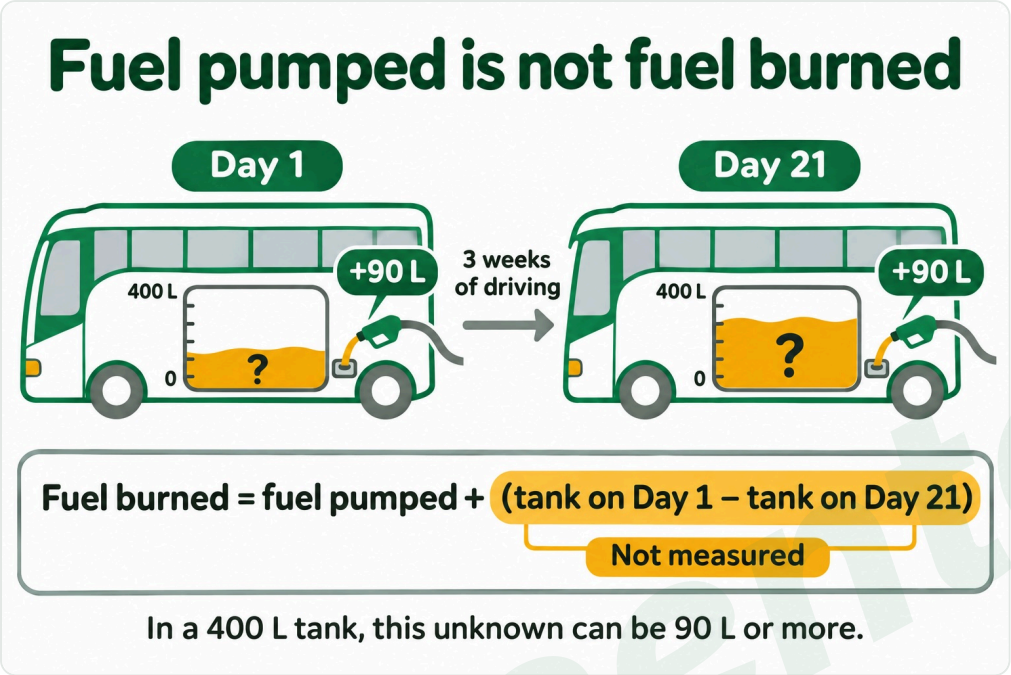
The two blue rows: 90 L pumped both times, once after 285 km and once after only 76 km. 90 L is how much went in, not how much was used.

Result: test failed, fuel used was never measured. Liters per km cannot be calculated and before cannot be compared with after. The right way: follow the Fuel log (page 22).

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Why it cannot be measured: fuel pumped is not fuel used



Fuel burned = fuel pumped + (fuel in the tank at the start − fuel in the tank at the end). **Fill to full at the start and the end and the bracket is 0**: fuel pumped is fuel burned. Pump a fixed 90 L every time and nobody ever measured the bracket.

Only a full tank tells you how much was used

Fill to the first click every time and the tank comes back to the same level every time, so this fill-up is the fuel used since the last one. Pump a fixed 90 L and the tank stops at a different level every time; nobody knows how much is left inside.

HQ's verdict: this log cannot be used. It cannot prove a saving and it cannot prove there was none, because fuel used was never measured.

The unknown fuel is bigger than the saving you want to measure

90 L is under a quarter of the tank, so the start and end levels can differ by more than 90 L. This coach pumped about 1,400 L in the three weeks after install; a 6% saving is about 85 L, less than the unknown fuel.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

The right way: follow the Fuel log, check "Full tank" and "Cold tank" on every row

The right way The same kind of coach with a 400 L tank, logged the Fuel log way: one row per fill-up, "Full tank" and "Cold tank" checked on every row. Demo numbers

Vehicle ID	Date	Period (Before / After)	Odometer (km)	Liters filled	Full tank? first click	Cold tank? morning, before first trip	Notes
EXAMPLE-1	2026-08-03	Before	120,000	300	✓	✓	Start (not counted)
EXAMPLE-1	2026-08-06	Before	120,460	186	✓	✓	
EXAMPLE-1	2026-08-10	Before	120,980	205	✓	✓	
EXAMPLE-1	2026-08-13	Before	121,430	183	✓	✓	
EXAMPLE-1	2026-08-17	Before	121,960	210	✓	✓	
EXAMPLE-1	2026-08-20	Before	122,400	178	✓	✓	
EXAMPLE-1	2026-08-24	Before	122,930	215	✓	✓	
EXAMPLE-1	2026-08-27	Before	123,380	177	✓	✓	
EXAMPLE-1	2026-08-31	Before	123,900	206	✓	✓	Greentech installed

Every row has to meet these

1. **Fill in the morning before the first trip, not right after the last trip of the day.** Fuel is hot and expanded after a run, so less goes in. A morning fill-up is a cold tank: check "Cold tank."
2. **Same pump, fill to the first click, no topping off.** Done that way, check "Full tank."
3. One row for every fill-up. A fill-up that missed a rule is still logged: leave the box unchecked and write the reason in Notes.
4. At least 4 weeks before install and 4 weeks after, burning two tanks in each period (400 L tank = 800 L or more).

Logged this way, it can be measured

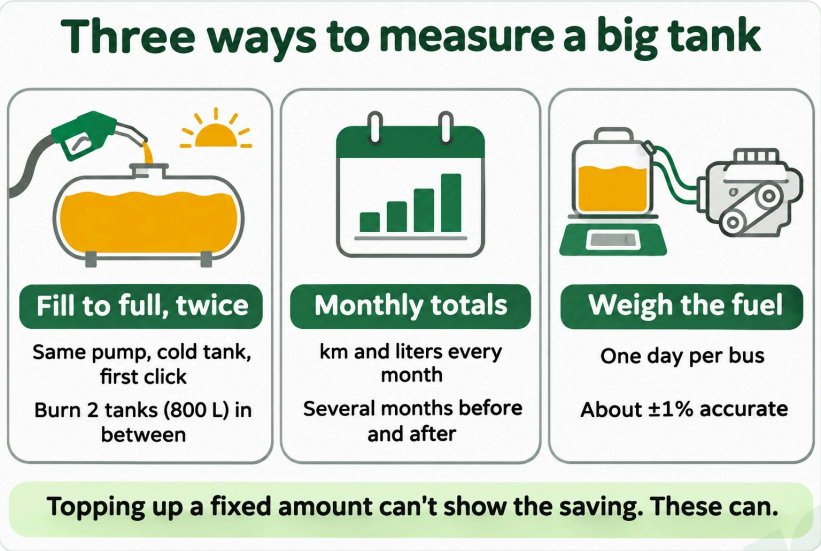
Fuel used = fuel pumped after the start row: 186 + 205 + … + 206 = **1,560 liters**. Distance = 123,900 − 120,000 = **3,900 km**. Fuel per 100 km = 1,560 ÷ 3,900 × 100 = **40.0 liters**. Log another 4 weeks after install the same way and compare the two periods.

On paper: the customer fuel log on page 24. The **Excel fleet worksheet** ↓ does the math. If company policy only allows a fixed amount: fill to full at the start and the end, and still log every fill-up in between.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Check it yourself before sending: what was wrong with this log



Three ways to measure a big tank: fill to full at the start and the end and burn two tanks in between; look at monthly totals; or weigh the fuel for one day (page 18).

Re-testing

Take a vehicle not yet installed, log 4 weeks the Fuel log way, install, then log 4 more weeks (page 22). Vehicles already installed: compare the monthly reports (total km, total liters) from the months before install with each month after. The Excel fleet worksheet↓ works out distance and totals and flags periods with too few days or fill-ups.

What was wrong	Change to
A fixed 90 L almost every time, never to full	**Fill to the first click every time and check "Full tank"; if company policy fixes the amount, the start and end must be filled to full**
No way to tell a morning fill-up from one right after the last trip	**Fill in the morning before the first trip and check "Cold tank"; do not fill right after the last trip**
Only about 3 weeks logged (20–22 days)	**At least 4 weeks before and 4 weeks after install, two tanks burned in each (400 L tank = 800 L)**
One coach had 4 fill-ups before install with no odometer reading	**Write down the odometer at every fill-up**
The first fill-up of each period was counted in the total	**The first full tank is only the starting point; its liters are not counted**
One coach's total after install was written as 2,519 km; the odometer gives 2,546 km	**Distance = last odometer reading – start odometer reading**
Unit written as liters per km, but km per liter was what was calculated	**Write the unit clearly: km/L or L/100 km**
One coach drove almost twice the daily distance after install, with no reason given	**Route, schedule or load changes go in Notes**

The table itself is fine: the same table with every fill-up to full does measure it (the bus report on page 19, 7.4% more km per liter).

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Buses and trucks (tank over 100 L): fuel log

Follow these and nothing goes wrong

1. One row per fill-up per vehicle: vehicle ID, date, odometer, liters.
2. Fill in the morning before the first trip, not right after the last trip: fuel is hot after a run and less goes in. A morning fill-up is a cold tank: check "Cold tank."
3. Same pump, fill to the first click, no topping off. Done that way, check "Full tank."
4. If company policy only allows a fixed amount (say 90 L): the start and the end must be filled to full, log every fill-up in between and leave "Full tank" unchecked.
5. At least 4 weeks and at least 3 full-to-full fill-ups per vehicle before install; if fuel records already exist, use the last 1–3 months in a similar season.
6. The installation row is still Before, with "Greentech installed" in Notes; rows after that are After, for at least another 4 weeks.
7. Tanks over 200 L: burn at least two tanks between the two fill-ups you compare (about 860 L for a 430 L bus). For an answer in one day, ask the distributor to arrange weighed fuel.

Fuel log

one row per fill-up; "Full tank" and "Cold tank" checked on every row

Vehicle ID _____ Measured by: km Fuel: ☐ Diesel ☐ Gasoline ☐ LPG

Greentech model _____ Installed on _____

Scan for the Excel

Vehicle ID	Date	Period (Before / After)	Odometer (km)	Liters filled	Full tank? first click	Cold tank? morning, before first trip	Notes
EXAMPLE-1	2026-08-03	Before	120,000	300	✓	✓	Start (not counted)
EXAMPLE-1	2026-08-06	Before	120,460	186	✓	✓	
EXAMPLE-1	2026-08-31	Before	123,900	206	✓	✓	Greentech installed
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	

Yellow = you fill in Blue = example

Type it into Excel (**Download the Excel fleet worksheet ↓**): the Excel has the same two columns, pick Yes / No as on paper.

Distributor _____ Phone / Email _____

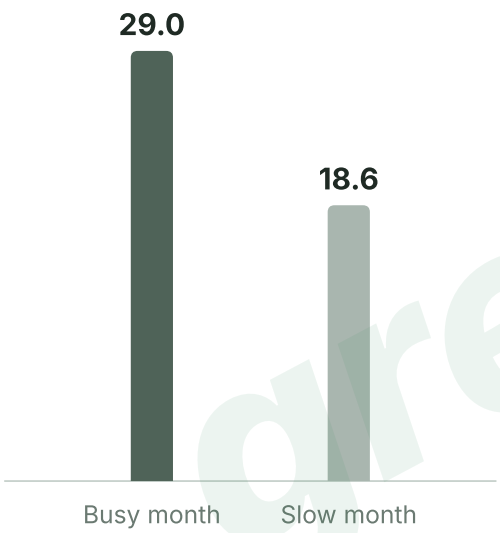
Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Generators: compare liters per kWh, not liters per hour

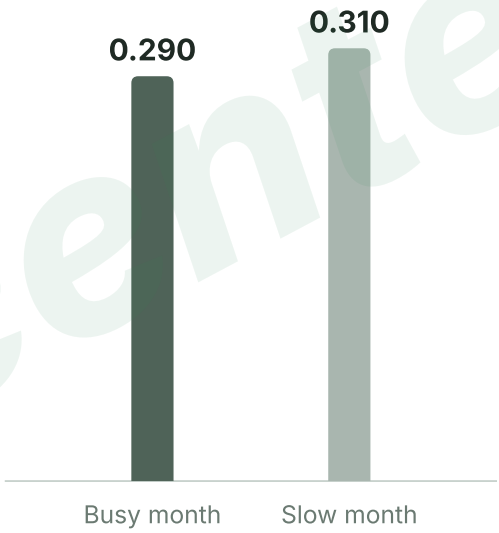
Liters per hour (L/h)

Look only at this: looks like 36% less



Liters per kWh (L/kWh)

Look at this: actually 7% more



Demo numbers

The same 200 kW prime-power generator, nothing changed, except the second month had less work. Liters per hour alone look like a 36% saving; liters per kWh actually went up 7%, because efficiency is worse at light load. **So log how much electricity was generated, too.**

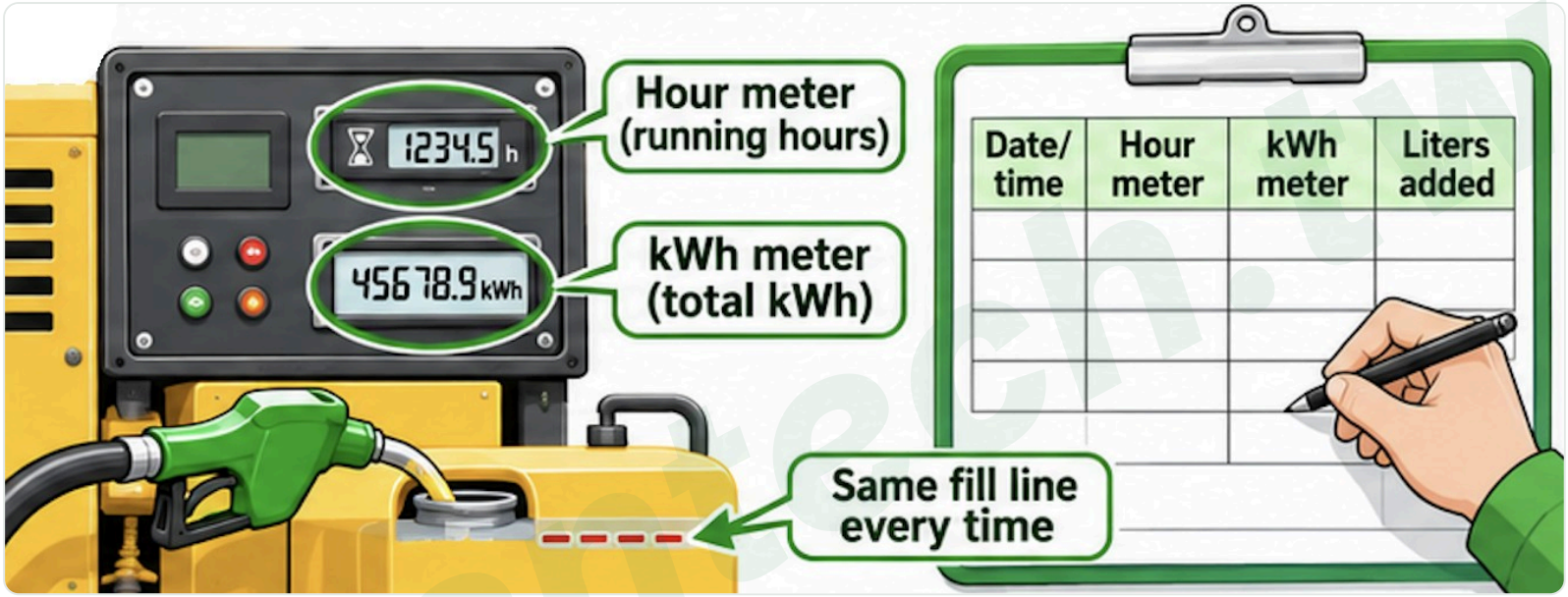
Item	Busy month	Slow month
Running hours	300	300
Electricity generated (kWh)	30,000	18,000
Fuel used (L)	8,700	5,580
Average load	100 kW (50%)	60 kW (30%)

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Generator method 1: fill to the same level every time, read the hour meter and kWh meter



1. Fill to full the first time and write down date and time, hour meter and kWh meter as the starting point.
2. After that, fill to the **same level** every time and log: date and time, hour meter, kWh meter, liters pumped.
3. Fuel used in each interval = liters pumped this time; running hours and kWh = this reading minus the last reading.
4. For the whole period, **add up fuel, hours and kWh separately, then divide**. Do not average the L/kWh of each interval.
5. Maintenance, faults, fuel drawn from the tank for other machines and fuel changes all go in Notes.

You need: an hour meter, a kWh meter (add a three-phase kWh meter if the controller has no cumulative kWh), a fixed fill level, the same way of measuring liters every time, and the log sheet (page 31) or the Excel generator worksheet↓.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Demo log: one 200 kW generator over 8 days

Date	Hour meter	kWh meter	Pumped (L)	Running hours	kWh generated	L/h	L/kWh
10/1	12,400	1,860,000	Full (start)	–	–	–	–
10/3	12,420	1,861,800	540	20	1,800	27.0	0.300
10/5	12,438	1,863,330	466	18	1,530	25.9	0.305
10/7	12,460	1,865,420	618	22	2,090	28.1	0.296
10/9	12,480	1,867,180	535	20	1,760	26.8	0.304
Total			**2,159**	**80**	**7,180**	**27.0**	**0.301**

One interval

The 10/3 interval: 540 L ÷ 1,800 kWh = 0.300 L/kWh

The whole period

2,159 L ÷ 7,180 kWh = **0.301 L/kWh**: divide the totals, do not average the intervals

Average load

7,180 kWh ÷ 80 h ≈ 90 kW, about 45% of the 200 kW prime power

Demo numbers If you cannot fill to full every time, a dipstick and the tank's calibration chart can be used, but the error is larger; at the very least, fill to full at the start and the end of the period.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

When there is only an hour meter, or only monthly reports

Only liters per hour (L/h) can be compared

The work in the two periods has to be similar. Write "load not recorded" in the report.

The owner only has monthly reports

Many owners only have monthly running hours and fuel. List every month before install and, as with excavators, check whether the months after install are below every month before (page 34).

Start reading the kWh meter today

Ask the owner to read the kWh meter at every fill-up; if the controller has no cumulative kWh, add a three-phase kWh meter. The same log then compares liters per kWh, and some difference in load is fine; if the average load differs by more than 10% between the periods, the worksheet flags "load changed."

Log liters, not money

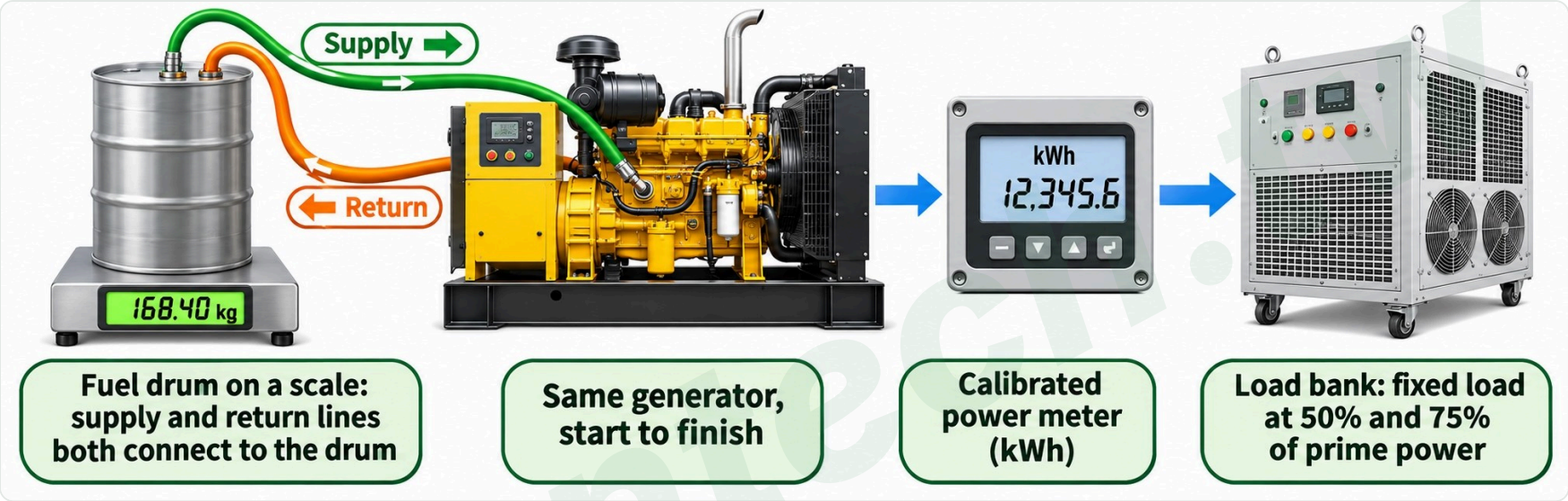
Fuel prices change, and money cannot be turned back into liters. Fill to the same level every time and log the liters.

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Generator method 2: load bank plus scale, the most accurate number in a day or two



Equipment: the same generator from start to finish; a resistive load bank held at 50% and 75% of prime power; a fuel drum on an electronic scale with 10 g resolution or finer, **with both the supply and return lines connected to that drum**; a calibrated power meter; the same batch of diesel throughout, with ambient and fuel temperature recorded.

Each condition: warm up until coolant temperature is stable → set the load and let it settle for 30 minutes → measure for 60 minutes, recording fuel weight and kWh at the start and the end → repeat at least 3 times, average them, and list every run.

Order: ① baseline (untreated fuel) ② Air Refiner only (only if the kit includes one) ③ Greentech Fuel Saver only (switch to a second drum holding the Fuel Saver) ④ both. Treated fuel must not go back into the baseline drum; after every drum change, run 30 minutes to flush the old fuel out of the lines.

Calculation: specific fuel consumption (g/kWh) = fuel weight used (g) ÷ electricity generated (kWh). Fuel weight used = start weight − end weight; electricity generated = the kWh meter difference over the 60 minutes. Use a scale, not a measuring jug: diesel changes about 0.08% in volume per 1°C, and weight does not change.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Comparing before and after: four periods, set in advance

Baseline period (before install)	Installation day	Settling period	Comparison period
At least 4 weeks and at least 100 running hours; longer is better. Log every fill-up as usual.	Fill to full, read the hour meter and kWh meter as the dividing line, then install Greentech (model chosen by tank size) and record the model and date.	Set its length in advance, for example the first tank after install; keep logging and list it separately. An older engine may clear carbon deposits first, so early numbers do not always drop right away.	Similar in length and workload to the baseline period.

Item Demo numbers	Baseline (4 weeks)	Comparison (4 weeks)
Running hours	280	290
Electricity generated (kWh)	25,200	26,100
Fuel used (L)	7,560	7,360
Average load	90 kW (45%)	90 kW (45%)
Liters per kWh (L/kWh)	**0.300**	**0.282**

Saving = (0.300 − 0.282) ÷ 0.300 = **6.0%**

Fuel saved = 26,100 × 0.300 − 7,360 = **470 L**

These are demo numbers, not a test result; they match EXAMPLE-1 in the Excel generator worksheet. When the average load of the two periods differs by more than 10% (say 45% vs 55%), the worksheet flags "load changed": liters per kWh are naturally higher at light load, so read the result conservatively and, ideally, compare by load band.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Generators: fuel log

Follow these and nothing goes wrong

1. Fill to the same level every time and log liters, not money spent.
2. One row per fill-up: generator ID, date, hour meter, kWh meter, liters. No kWh meter: leave that column blank.
3. With kWh readings, liters per kWh can be calculated; if the average load differs by more than 10% between the periods, the worksheet flags "load changed."
4. At least 4 weeks, 3 fill-ups and 100 running hours before install. The installation row is still Before, with "Greentech installed at this fill-up" in Notes; rows after that are After, for just as long.
5. Maintenance, faults and fuel drawn for other machines go in Notes; lock the tank.

Fuel log one row per fill-up, same level every time; same columns as the Fuel log tab of the Excel generator worksheet on greentech.tw

Scan for the Excel

Generator ID _____ Prime power _____ kW Fuel: Diesel

Tank _____ L Greentech model _____ Installed on _____

Generator ID	Date	Period (Before / After)	Hour meter (h)	kWh meter (total kWh)	Liters filled	Notes
EXAMPLE-1	2026-09-01	Before	12,000	1,800,000	1,905	Filled to full, start here
EXAMPLE-1	2026-09-29	Before	12,280	1,825,200	1,885	Greentech installed at th

Yellow = you fill in Blue = example

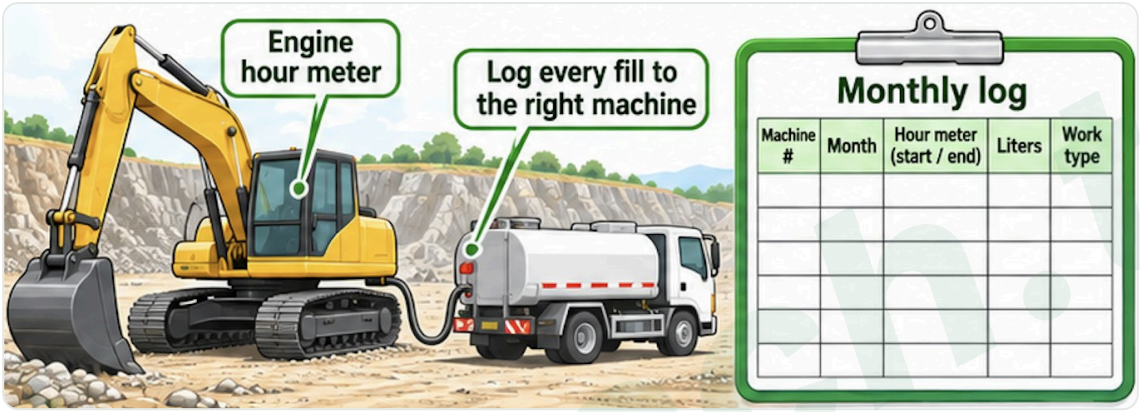
Log on paper, then type it into Excel (**Download the Excel generator worksheet ↓**). No math needed.

Distributor _____ Phone / Email _____

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Excavators and construction equipment: two test methods, the owner chooses



	A Normal work, monthly reports Recommended, every customer can do it	B Fixed work cycle plus weighed fuel Optional
Change the work?	No. Work as usual, log as usual	Only for the few hours of the test
How long	Baseline from the last 3–6 monthly reports, no waiting; 2–3 months after install	**Only a few hours**: 3 runs before install and 3 after, done within a day
What the owner does	Log hours and fuel for each machine every month; if they have KOMTRAX or similar, hand over those reports too	Lend one machine, one operator and one pile of material for a few hours
What you get	Real fuel use under normal work, visible for every machine	Short-term fuel consumption comparison data under work conditions kept as consistent as possible
When to use it	This is the default	Only when the customer wants a firm number fast; **skipping it is fine**

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

How to run the two methods

A Normal work, monthly reports (recommended)

1. Compare **liters per engine hour** = diesel used ÷ hours on the hour meter. An excavator works in place; km per liter means nothing.
2. Before install: use the owner's last **3–6 monthly reports** as the baseline, covering a similar season where possible. No monthly reports: log weekly from now, at least 4 weeks and 3 fill-ups to full.
3. After install: work as usual, one row per machine per month (hour meter, fuel pumped). Changes in work, idle months and fuel drawn for other machines go in Notes.
4. If they have KOMTRAX, ConSite or similar, take those reports too: waiting and idling burn only a few liters per hour, so a month with a lot of idling has low liters per hour anyway and needs to be read separately.
5. Quarries and mines that record tons shipped can also look at "total excavator fuel ÷ tons shipped," which builds the workload in automatically.
6. Reading the result: compare each machine with its own range before install (page 34), and all machines combined over 3 months. The **Excel machine worksheet ↓** does the math (page 36 is the paper version).

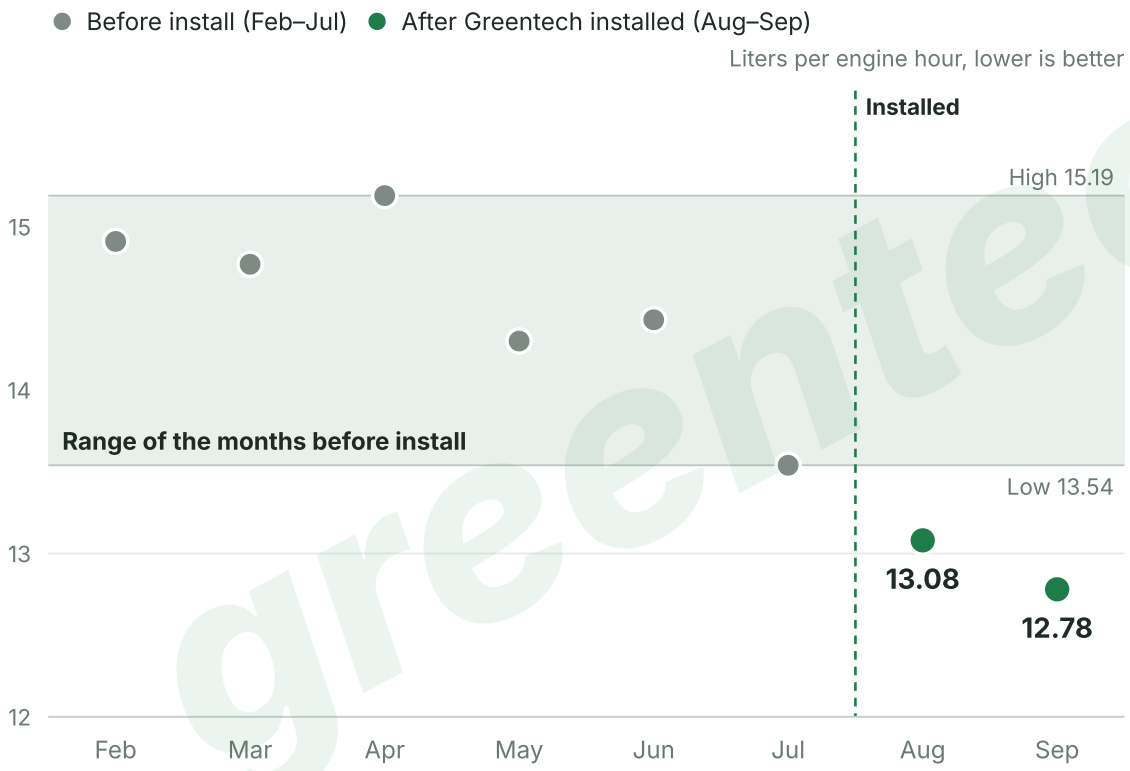
B Fixed work cycle plus weighed fuel (a few hours, optional)

1. Same machine, same operator, same pile of material, same work mode and throttle, doing the same dig-and-load cycle (30–60 minutes each, or a fixed number of buckets).
2. Fuel comes from a drum on a scale, with supply and return lines connected to the drum; measure fuel by weight, the same as weighing fuel for a bus (page 18).
3. 3 runs before install. Switch to the drum holding the Greentech Fuel Saver, run 30 minutes to flush the old fuel out of the lines, then 3 more runs. Average them and list every run.
4. Half a day to a day in all. Only when the customer wants a firm number fast; **skipping it is fine**, method A shows it under normal work.
5. Reference: JCMAS H 020 from the Japan Construction Machinery and Construction Association also measures excavator fuel consumption with a fixed work cycle.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

How to read it: compare with every month before install



Success case

VM Crusher's busiest Komatsu excavator (#N736351). The 6 months before install jumped between 13.54 and 15.19 L/h; the two months after were 13.08 and 12.78, **lower than every single month before: that is "measured."** Average 14.50 → 12.95, 10.7% less fuel per engine hour.

Reading rule

Every month after install below the lowest month before install = measured.

Average down, but still inside the range = right direction, keep logging.



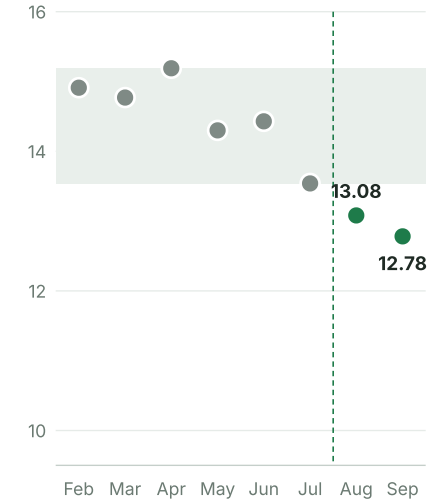
This machine's case study (English and Chinese): the owner's own monthly reports, all four excavators listed.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

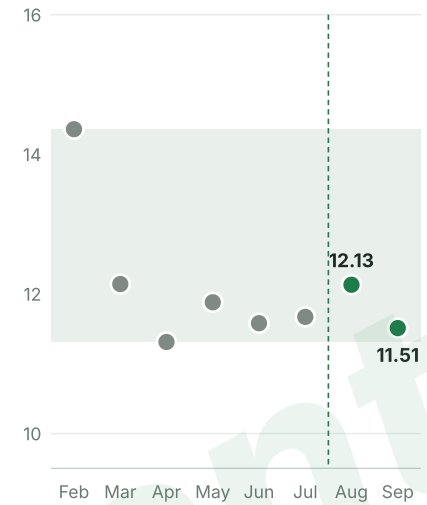
List every machine in the fleet: four excavators, four results

#N736351 — Measured



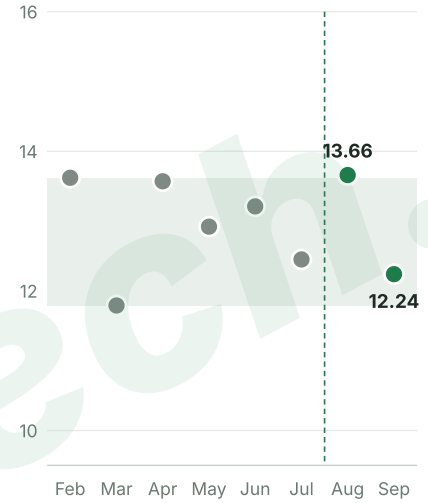
Both months after install below every month before (−10.7%)

#N736038 — Right direction, keep logging



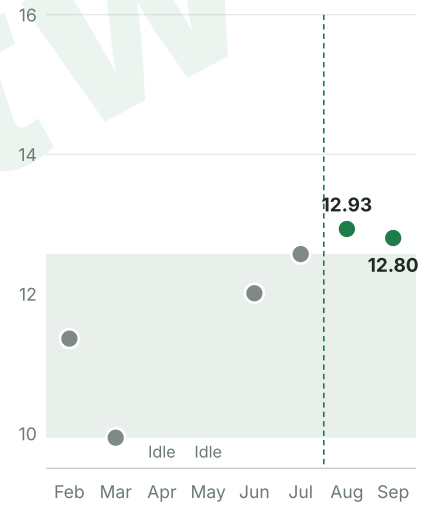
Average 3.9% lower, but both months still inside the earlier range

#N731952 — Nothing shows



One month higher, one month lower (+1.4%)

#N731939 — Higher than before: check first



Both months above the earlier range (+9.0%); it was already climbing in June and July before install, so check the work, maintenance and fuel draws first

Four Komatsu excavators of the same owner; the gray band is each machine's own monthly range before install. **All four combined used 784 liters less (−2.4%).** The two weaker machines are listed too: the customer trusts the good one only when they can see everything.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Excavators and construction equipment: fuel log

Follow these and nothing goes wrong

1. One row per fill-up to full: machine ID, date, hour meter, liters. Fuel from a service truck is logged against the machine it went into.
2. Weekly rows: write the hour meter at the last fill-up to full that week, and all the liters pumped that week.
3. Monthly reports only: one row at the end of each month (hour meter at month end, fuel pumped that month), filled to full at month end where possible; the first row is the starting reading; write "idle" for months with no work.
4. Before install: the last 3–6 monthly reports; without them, log from now, at least 4 weeks and 3 fill-ups to full. The installation row is still Before, with "Greentech installed at this fill-up" in Notes.
5. After install: at least 2 monthly reports; with weekly or per-fill-up rows, at least 4 weeks and 3 fill-ups. A change of work (say digging to breaking) goes in Notes.
6. Just work as usual; there is no need to change the work for the test. For a firm number fast, the distributor can arrange a fixed work cycle with weighed fuel, a few hours; skipping it is fine.

Fuel log one row per fill-up, per week or per month; same columns as the Fuel log tab of the Excel machine worksheet on greentech.tw

Scan for the Excel

Machine ID _____ Fuel: Diesel Model _____

Greentech model _____ Installed on _____

Machine ID	Date	Period (Before / After)	Hour meter (h)	Liters filled	Notes
EXAMPLE-1	2026-08-03	Before	5,000	280	Filled to full, start here
EXAMPLE-1	2026-08-31	Before	5,206	702	Greentech installed at this fill-up
EXAMPLE-2	2026-03-31	Before	8,000	2,140	Monthly report: end-of-March readin
EXAMPLE-2	2026-04-30	Before	8,180	2,160	Monthly report: April

Yellow = you fill in Blue = example

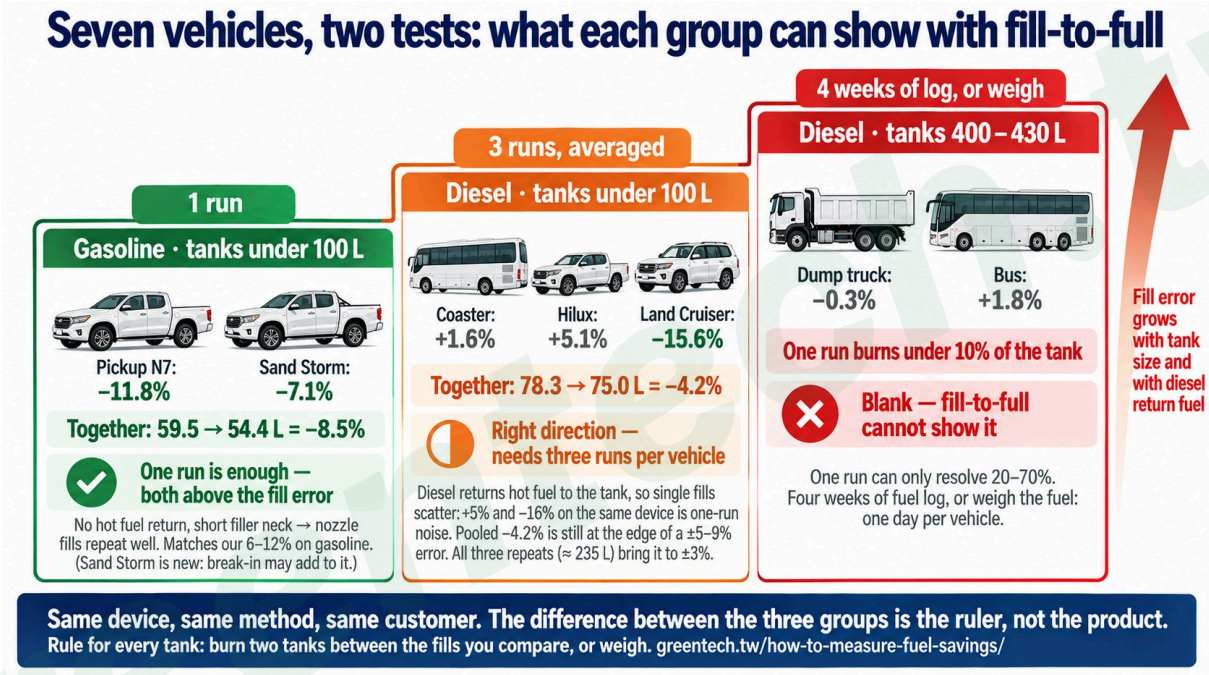
Log on paper, then type it into Excel (Download the Excel machine worksheet ↓). No math needed.

Distributor _____ Phone / Email _____

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Three kinds of result: measured, right direction but keep logging, cannot confirm an improvement



Measured

The saving is bigger than the **measurement error**, so the difference comes from the product, not the method. Vehicles: bigger than the fill-up error; equipment: every month after install below the lowest month before. → Quote, and talk about the other vehicles.

Right direction, keep logging

The average is down, but still inside the error. → Log another 2–4 weeks (equipment: 1–2 months).

Cannot confirm an improvement

The numbers jump around inside the error, positive and negative. → Change method per page 10: log 4 weeks, or weigh the fuel.

Right method, long enough log, still no drop: check maintenance, fuel quality, fuel draws and the work first; if there is still nothing, record it as it is and say so.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

What to tell the customer for each result

When	Tell the customer	Next step
Before the test	"This vehicle needs 4 weeks (or 3 runs, or one day on a scale). The first few numbers will jump; we look at the total for the whole period."	Fill in the test plan together (page 11)
Measured	"Measured: on the same route (or work), X% less fuel. At that rate, about Y liters a month."	Quote, and install the other vehicles
Right direction	"The direction is right; it is already using less fuel than before. Two more weeks (or one more month) and the number will stand up."	Set a date to look at the numbers again
Cannot confirm	"This way of measuring cannot see a difference as small as 6%. The numbers are inside the error: not no effect, and not an effect. Keep the Fuel Saver in and switch to a 4-week log (or one day on a scale)."	Change method per page 10
Really no drop	"Let's check maintenance, fuel quality, fuel draws and the work together."	Send the data to HQ to review together

Method first, result second

Agree on how long to log and how to calculate before the test, so the customer does not fixate on one entry afterward.

Show the customer every number

Every machine, every entry, including the weaker ones. The customer trusts it when they can see everything.

Never say "no effect"

When nothing shows, say "this method cannot measure it," then change the method.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Sending data to HQ: online log or Excel, the whole period

Three Excel worksheets, click or scan to download

Fleet Machines Generators

Fleet worksheet ↓ Machine worksheet ↓

Generator worksheet ↓

Web version at greentech.tw/how-to-measure-fuel-savings/.
Type the customer fuel log at the end of each chapter into the Excel as is; for cars and buses, a row without "Full tank" or "Cold tank" checked gets the reason in Notes.

Online fuel log (free)

greentech.tw/fleet-log/
Log fill-ups directly, or import the fleet worksheet. The machine and generator worksheets cannot be imported yet; email the whole Excel file to order@greentech.tw. A photo of the paper sheet is fine too.

The five things to send

1. Machine: make, model, year, tank size; for generators add kVA and prime power (kW).
2. Greentech: model, installation date, odometer or hour meter at installation.
3. The raw log for both periods: date, odometer or hour meter and liters for every fill-up (or every month); generators add the kWh meter.
4. Maintenance, faults, fuel draws and fuel changes during the period.
5. **Every machine, every entry**, including the ones that look weaker.

What HQ sends back

The result and reading for each machine (measured / right direction / cannot confirm), ready to take to the customer.

Moletech does not make products for any other company. Only Greentech is genuine.
Published by Greentech at greentech.tw · Do not copy or reuse without permission.

The 13 things that most often spoil a result

Wrong	Change to
Pumping a fixed amount every time (say 90 L), never to full	**Fill to full at the start and the end, log every fill-up in between (page 20)**
Drawing a conclusion from one run on a big tank or a diesel	**Pick the method per page 10: log 4 weeks, or weigh the fuel**
Filling right after installation and driving off (fuel still hot)	**Fill the next morning before the first trip**
Filling to a different level each time, topping off after the click	**Same pump, first click, no topping off**
Comparing a generator by liters per hour while the load changed	**Read the kWh meter, compare liters per kWh**
One month against one month, or picking the best-looking run	**The whole period, every machine listed**
Averaging the percentage of each interval	**Total liters ÷ total km (total kWh, total hours)**

Wrong	Change to
Major service, injector or fuel change during the period not recorded	**Everything goes in Notes**
Fuel drawn for other machines, leaks, theft	**Lock the tank, log every draw**
Comparing different machines with each other	**Each machine against itself only**
Installing before the baseline, or re-measuring a baseline after removal	**Baseline first, then install; after removal it cannot be a new baseline**
Using the fuel consumption shown on the generator panel or the dashboard	**Use actual fuel pumped: many displayed values are estimates**
Logging fuel by money spent	**Log liters**

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Formulas: vehicles and excavators (always divide the totals)

Vehicles

Kilometers per liter (km/L) = total km ÷ total liters

Liters per 100 km (L/100 km) = total liters ÷ total km × 100

Less fuel (%) = (L/100 km before − L/100 km after) ÷ L/100 km before

More km per liter (%) = (km/L after − km/L before) ÷ km/L before

Fuel saved (L) = total km after ÷ km/L before − actual fuel used after

The same run, two ways of saying it: a gasoline pickup drives 122 km on 17.5 L before and 15.43 L after. Less fuel = (17.5 − 15.43) ÷ 17.5 = 11.8%; in km per liter that is 6.97 → 7.91 km/L, 13.4% more km per liter. Both are correct; say which one the report uses.

CO_2 avoided (kg) = fuel saved × 2.68 (diesel) or 2.31 (gasoline); the factor differs by country.

Excavators and construction equipment

Liters per engine hour (L/h) = fuel used ÷ engine hours

Saving (%) = (L/h before − L/h after) ÷ L/h before

Fuel saved (L) = L/h before × hours after − actual fuel used after

Range reading: every month after install below the lowest month before = measured

Example: #N736351 at its old 14.50 L/h should have used 10,194 L over the 703 hours of August–September; it actually used 9,102 L, 1,092 L less.

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Formulas: generators, and reference values for a sanity check

Running hours (h) = this hour meter reading − last reading

Electricity generated (kWh) = this kWh meter reading − last reading

Fuel used (L) = liters pumped this time (fill-to-level method)

Liters per kWh (L/kWh) = fuel used ÷ kWh generated

kWh per liter (kWh/L) = kWh generated ÷ fuel used

Specific fuel consumption (g/kWh) = L/kWh × diesel density (about 840 g/L), or grams of fuel ÷ kWh generated

Average load (kW) = kWh generated ÷ running hours

Load factor (%) = average load ÷ prime power × 100 use Prime, not Standby; with kVA only, kW ≈ kVA × 0.8

Saving (%) = (baseline L/kWh − comparison L/kWh) ÷ baseline L/kWh × 100

Fuel saved (L) = comparison kWh × baseline L/kWh − comparison fuel used

Load factor	About 60 kW and up (L/kWh)	Small 20–40 kW sets (L/kWh)
100%	0.27–0.31	0.30–0.38
75%	0.26–0.32	0.33–0.40
50%	0.27–0.37	0.34–0.45
25%	0.32–0.49	0.45–0.66

Check against the manufacturer's spec sheet first (it usually lists fuel use at 25%, 50%, 75% and 100% load). Without a spec sheet, use this rough range: the lighter the load and the smaller the set, the higher the number. Converted from Diesel Service & Supply's general diesel generator fuel consumption chart. If the numbers are far off, check the kWh meter, the hour meter and the log sheet first.

greentech.tw

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Vehicle fuel log (gasoline, diesel, buses, trucks)

① Same pump, stop at the first click ② Fill in the morning, not right after the last trip ③ One row for every fill-up ④ At least 4 weeks before and 4 after install ⑤ Write "Greentech installed" on the installation row

Scan for the Excel

Vehicle ID _____ Fuel: ☐ Diesel ☐ Gasoline ☐ LPG Tank _____ L Greentech model _____

Installed on _____

Vehicle ID	Date	Period (Before / After)	Odometer (km)	Liters filled	Full tank? first click	Cold tank? morning, before first trip	Notes
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	
					☐	☐	

One row per fill-up, in ballpoint pen; cross out a mistake with one line and rewrite; check "Full tank" and "Cold tank" when done that way.

When a sheet is full, photograph it or hand it to the distributor to type into the Excel fleet worksheet; the result is calculated automatically. Sheet no. ___

Customer _____ Logged by _____ Distributor _____ Phone / Email _____

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Generator fuel log

① Fill to the same level every time ② Log liters, not money ③ Read the hour meter and kWh meter ④ At least 4 weeks and 100 hours before and after install ⑤ Fuel draws and maintenance go in Notes

Scan for the Excel

Generator ID _____ Prime power _____ kW Fuel: Diesel Tank _____ L Greentech model _____

Installed on _____

Generator ID	Date	Period (Before / After)	Hour meter (h)	kWh meter (total kWh)	Liters filled	Notes

One row per fill-up, in ballpoint pen; cross out a mistake with one line and rewrite.

When a sheet is full, photograph it or hand it to the distributor to type into the Excel generator worksheet; the result is calculated automatically. Sheet no. ___

Customer _____ Logged by _____ Distributor _____ Phone / Email _____

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.

Excavator and construction equipment fuel log

① One row per fill-up to full (or per week, per month) ② Write the hour meter and the liters ③ Service-truck fuel goes against the machine it went into ④ 3–6 monthly reports or 4 weeks before install ⑤ A change of work goes in Notes

Scan for the Excel

Machine ID _____ Model _____ Fuel: Diesel Greentech model _____ Installed on _____

Logging: ☐ every fill-up ☐ weekly ☐ monthly report

Machine ID	Date	Period (Before / After)	Hour meter (h)	Liters filled	Notes

One row per fill-up, in ballpoint pen; cross out a mistake with one line and rewrite.

When a sheet is full, photograph it or hand it to the distributor to type into the Excel machine worksheet; the result is calculated automatically. Sheet no. ___

Customer _____ Logged by _____ Distributor _____ Phone / Email _____

Moletech does not make products for any other company. Only Greentech is genuine.

Published by Greentech at greentech.tw · Do not copy or reuse without permission.