FLANNERY®

Environmentally Responsible

People | Safety | Innovation | Sustainability | Value

Index

Committed to a greener future…

Our Sustainability Vision

- We are fully committed to a greener future as the only way for the construction industry.
- We believe it is our social responsibility to invest in the latest, innovative plant and equipment.
- We innovate by challenging the norms, which means our customers work more efficiently and responsibly.
- We create value for our customers through efficiencies in fuel savings and productivity.

Introduction

“At Flannery Plant Hire, we care about the impact of our activities on the planet and the footprint we leave behind.

We actively seek out the safest, most innovative, and sustainable solutions that deliver value to our clients and leave a greener, cleaner legacy. The breadth and depth of our sustainable plant and services ensures that we improve the method of work, providing the smartest and cleanest solution.

Flannery continues to invest heavily in the latest plant and equipment that delivers **Stage IV and V engines, hybrid technology** and the widest range of **fully electric plant** including mini excavators, telehandlers and dumpers. Our machinery is equipped with the latest **GPS and machine control systems**, increasing accuracy and providing a more efficient operation. Our clients have access to a bespoke, consolidated **telematics** dashboard that we have spent the last two-years developing. This encourages collaboration between us and our clients to evaluate and assess data to find the most effective hire solution for their project.

How we deliver plant to site is also carefully controlled utilising Scania telematics on a fleet of **EURO 6 compliant HGVs** that have delivered a 30% fuel reduction in their first eighteen-months on the road. To improve productivity, our machines can provide Production Management Data/ Information, used to monitor activity and better manage the fleet. This technology has supported increased productivity on site by up to 25%, reducing the client costs by saving time, labour, and fuel.

Equally important to our fleet investment is the work we do to train and “upskill” our operators so that they are familiar and confident on the most efficient use of our plant and equipment. We are particularly proud of our internally developed **ECO Training Module**. We are also proud to be a Partner and Gold Member of the Supply Chain Sustainability School (SCSS) as well as a founding signatory to the Plant Charter, working hard to identify ways to be more environmentally responsible.

At Flannery Plant Hire our aim is to promote a positive, proactive attitude towards the environment in the construction industry. We are delighted to support our customers on their journey and welcome the opportunity to develop new ideas that will support greener solutions for us all.”

P.Flannery

Patrick Flannery

SUPPLY CHAIN SUSTAINABILITY SCHOOL

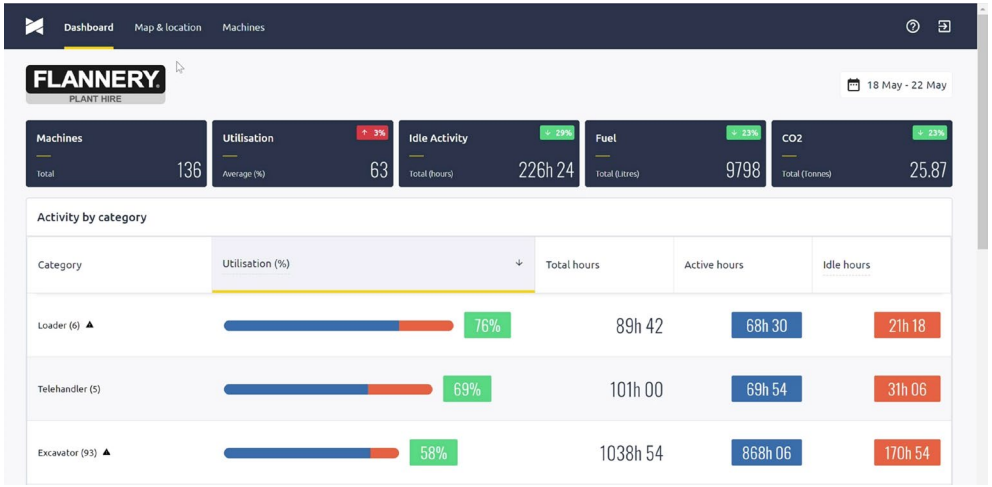
GOLD

Data That Will Drive a Green Agenda

Data that can inform your hire decisions and support behavioural change.

Flannery have invested significant resources into the development of latest telematics dashboard. This is a significant step forwards from the first version launched three years ago. The new consolidated dashboard allows our clients to achieve a complete view of their hire fleet, by project or product type. Analyse idle time with burning emissions and make real time production management decisions. The system allows clients (and Flannery) to recognise training gaps and drive real behavioural change on site.

Read the Flannery Telematics Case Study here



The Flannery dashboard has been and continues to be developed with input from Flannery Directors and Senior Managers, key clients, and technology partner MachineMax. Launched together with Shell, a new digital service helps construction and mining companies to maximise the profitability of their off-highway fleets using smart sensors and next-generation analytics.

Find out about MachineMax here

MACHINEMAX

Data Available...

Machine utilisation (as a %)
Idle time fuel usage (litres)
Fuel used (liters)
Fuel saving (£)
CO2 emissions (tonnes)
Active / Idle hours
Load count
Speed (max)
On a 10 week rolling average.

Data That Will Drive a Green Agenda

Technology that drives efficiency by supporting a dig once, move once approach.

Flannery Plant Hire are a leading supplier of machine guidance and control technology within the UK marketplace and have been working with this technology on UK projects for over fifteen-years.

The latest CAT Next Generation machines are GPS enabled and have a range of machine control features built in including Grade Assist. Flannery work closely with market leaders Trimble, Leica and TopCon to deliver the best GPS solution to clients across our range of dozers and excavators.

This technology means machines are enabled to directly view design information (3D models), loaded wirelessly or via USB transfer and to locate themselves in the real world. This enables accurate execution of the design and makes the checking and monitoring of progress more straightforward.

Flannery has invested heavily to provide full Production Management capabilities which improves fleet productivity and helps to reduce fuel consumption. This technology ensures consistent machine loading, analysis of idling and cycle time and GPS monitoring of plant movements. Optional payload indicators provide real-time payload weight information and the instant feedback keeps haul trucks fully loaded and moving to ensure maximum productivity is reached.

Whilst the obvious benefit to clients of “getting it right first time” is that they save time and therefore money it has real impact in terms of sustainability. Reduction in re-work means less fuel burn, fewer tankers needed for refuelling and fundamentally a greener (and safer) solution.

Read the Flannery GPS Case Study **here**

Flannery Environmental Training: Driving Behavioural Change

This year (2020) Flannery launched, internally developed and delivered an ECO-Operator training module.

This training is delivered by our team of CPCS Plant Trainers and focuses on best practise and behaviour, often utilising one of our plant simulators. Available to Flannery operators and customers this course promotes the better use of machines and technology, focusing on a reduction in fuel consumption and emissions.

Further to this Flannery training can also provide courses that deliver additional knowledge and a deeper understanding on GPS technology and machine control, which support its correct use and allow the operator to maximise its value.

Innovative Machinery

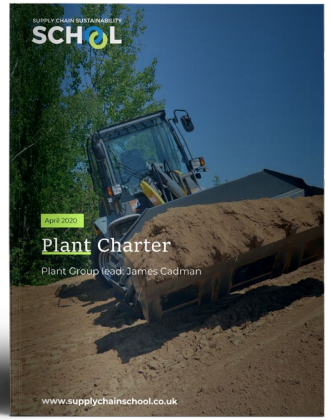
Continuous investment in EU Stage IV & V compliant equipment allows us to follow the latest EU environmental regulations.

The Flannery fleet provides the cleanest and most efficient solution, reducing fuel use and minimising your emissions on site.

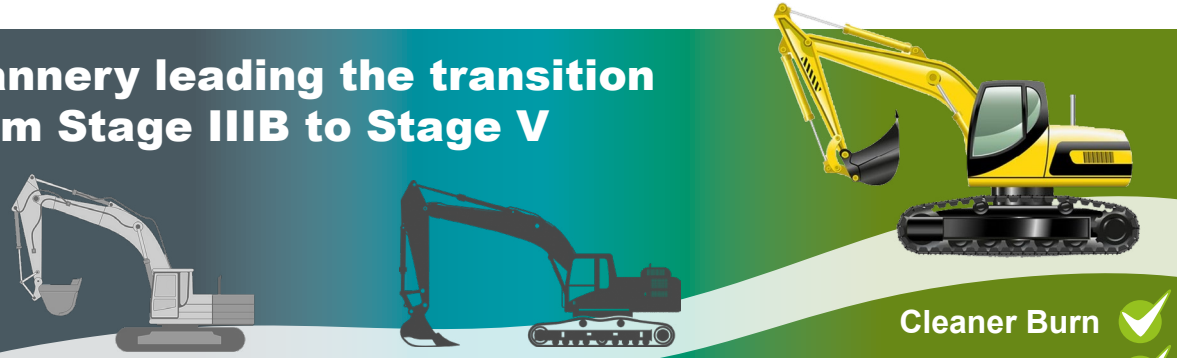
Flannery is proud to be a Partner and Gold Member of the Supply Chain Sustainability School (SCSS) as well as a founding signatory to the Plant Charter. Following the declaration of a climate emergency, the industry working group was set up and has been focused on a roadmap for plant specification that is both achievable and sufficiently robust to deliver meaningful improvements. The aim is to develop a unified approach to reduce emissions and improve air quality by adhering to five values: engagement, awareness raising and education, measurement and reporting, innovation investment and minimum standards in procurement.

SUPPLY CHAIN SUSTAINABILITY SCHOOL

GOLD



Flannery leading the transition from Stage IIIB to Stage V



Cleaner Burn

Lower PM Emissions

EU Stage IIIB			
From 1st January 2011			
Power: 130kW - 560kW			
CO_2	HC	NOx	PM
3.5	0.19	2.0	0.025

EU Stage IV			
From 1st January 2014			
Power: 130kW - 560kW			
CO_2	HC	NOx	PM
3.5	0.19	0.4	0.025

EU Stage V			
From 1st January 2019			
Power: 130kW - 560kW			
CO_2	HC	NOx	PM
3.5	0.19	0.4	0.015

> **"Flannery continue to be a valued, key Partner in the Supply Chain School. Their input and support has been crucial in developing the Group's Commitment Charter - a collaboration to improve on site air quality and carbon emissions - and the underlying drive for the plant hire sector to become more sustainable."**

James Cadman,
Lead Consultant at Action Sustainability
and Plant Group Lead in the School.

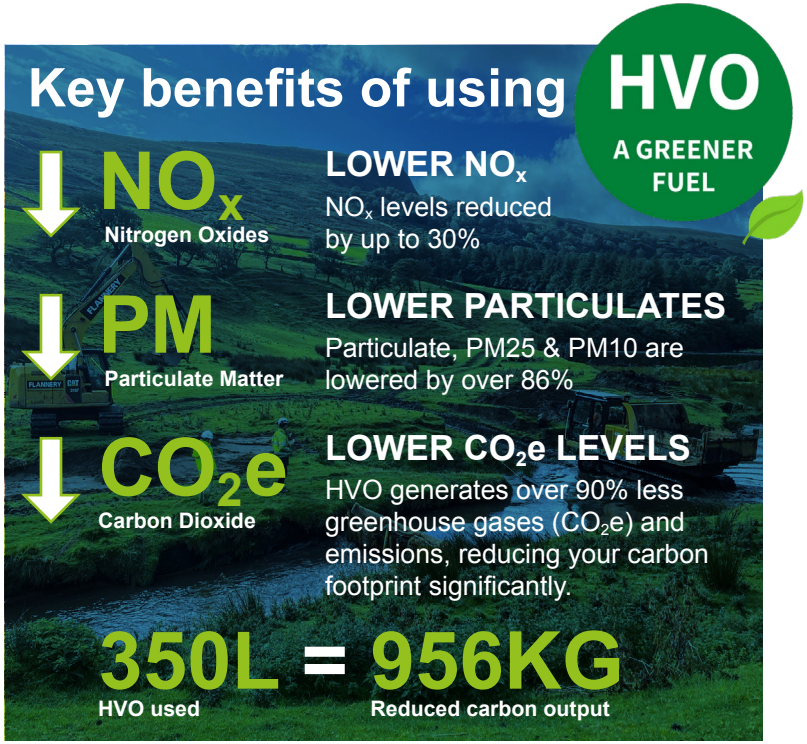
Cleaner Fuel

Today our larger plant and equipment still requires traditional, combustible fuel to operate.

Whilst the investigation into alternative fuel continues, we must all appreciate that NRMM fleets across the country continue to directly contribute Carbon, NO_x, and Particulate Patter emissions. Engine technology has progressed significantly to reduce this as much as possible, which is described on the previous page of this brochure, however there is more that we can do today.

HVO (Hydrotreated Vegetable Oils) fuel delivers a sustainable option for many users of traditional diesel and can even reduce operational difficulties to that of traditional diesel by lowering the risk of contamination when used as a back-up fuel. This fuel reduces carbon output in excess of 93%, together with a reduction in NO_x and particulate matter as well as a near-zero sulphur. It can also deliver fuel efficiency increases by as much as 7% since HVO fuel has a higher calorific content/ amount of energy. Flannery are happy to support you with any future trials you wish to run with alternative fuels.

- **ECO FRIENDLY & SUSTAINABLE**
  Made from sustainable and renewable raw materials.
- **LOW VISCOSITY LEVELS**
  Has excellent cold weather performance.
- **GREAT ALTERNATIVE FUEL**
  Compatible with all off-road diesel engines.
- **LONG STORAGE SHELF LIFE**
  Improved safety, shelf life and storage compared to regular diesel, therefore reducing the need for regular testing.
- **DROP-IN FUEL**
  HVO can be used as a direct replacement for conventional diesel fuels in heavy-duty and light-duty engines.
- **NOISE REDUCTION**
  Noise levels in some engines can be reduced by 1-4 dB.



These OEMs have already approved HVO for use in heavy-duty road vehicles, passenger cars and non-road vehicles.

CAT · KOMATSU · MAN · SCANIA · JOHN DEERE · DAF

Getting to Site, Greener and Cleaner

Flannery have made significant investment in the fleet of delivery vehicles to ensure we are EURO 6 Compliant.

The Flannery transport fleet is equipped with the Scania Fleet Management program, which allows us to take control of our fleet, control costs and lower fuel emissions. This technology enables us to plan the most efficient routes, factor in real time changes based on traffic information. It also allows us to manage and improve driver performance and behaviour.

Transport to and from site will be carried out by members of our highly experienced transport team.

Flannery are the first UK hirer to invest in the Tesla Semi - the world's first all-electric Class 8 truck (due 2021).

We are proud to highlight that our lorry drivers are all highly qualified through specific training (CPC certification, Loading and Unloading of Plant, Slinging and Securing).

Deliveries are planned and executed using the latest technology and telematics that allow to:

- Plan and execute the most efficient routes
- Keep our drivers (and customers) up to date with live traffic and travel information

Auto-Idle Benefits

For the communities we work within, the auto-idle technology fitted to our delivery vehicles means noise reduction as well as substantial fuel savings and environmental benefits.

Auto-idle on our HGVs reduced fuel used idling by 33.4% - a saving of 700 litres in a single month.

We Continue To Invest In New Innovations

This fleet supports our clients with full telematics and production management information, it is GPS enabled and ready to deliver a greener more efficient solution for the communities we serve by providing the lowest possible carbon footprint.

Our proactive approach to seeking-out and evaluating the latest green solutions means we have been the first hirer to bring many of the following products to market:

"THE LARGEST FLEET OF HYBRID & ELECTRIC PLANT FOR HIRE IN THE UK."

Hybrid Excavator

Hybrid Electric Drive Dozer

Fully Electric Telehandler

Fully Electric Dumper

Fully Electric Mini Excavator

Komatsu HB215LC-3 Hybrid Excavator

The combination of advanced hybrid technology and the integrated vehicle control system provide powerful and quiet performance and help to drastically reduce your carbon footprint and fuel consumption. This third generation, proven hybrid technology utilises an electric swing to capture and regenerate while you work. The HB215LC-3 features variable speed matching of the engine and hydraulic pump, and an automatic low idle. All ensuring your machine is as efficient as possible with the cleanest output.

Find out more **here**
Watch the case study video **here**

Specifications:

Engine Power:	110 kW / 148 HP
Bucket Capacity:	1.68 m³
Digging Depth:	6.62 m
Operating Weight:	23-23.87 t
Fuel Saving:	Up to 22%
Noise Reduction	✓
360º Camera	✓
Bio Hydraulic Oil Available	✓

CAT D6XE Hydrostatic Dozer

Incredibly fuel-efficient and responsive, the Cat D6XE employs next-generation technology to give unbroken power to the ground and great agility. The larger hydrostatic transmission in this machine allows the engine to run at a lower speed, optimising fuel economy and improving durability. Electric drive gives the D6-XE the highest levels of productivity with significantly lower fuel consumption than other dozers in its class. The improved cab filtration system makes the cab environment much safer for the operator.

Find out more **here**
Watch the case study video **here**

Specifications:

Engine Power:	161 kW / 215 HP
Blade Capacity:	5.7 m³
Machine Width:	3312 mm
Operating Weight:	22.02 - 24.09 t
Fuel Saving:	Up to 35%
Noise Reduction	✓
360º Camera	✓
Bio Hydraulic Oil Available	✓

Faresin 626 ECO Fully Electric Telehandler

This innovative, eco-friendly telehandler is powered by a lithium battery, which delivers a range of benefits - not least a manufacturer reported battery life of up to 6 hours. With zero CO_2 emissions the 2.6 t Eco Telehandler is ideal for use in enclosed or environmentally sensitive job sites. Unlike the standard wet cell batteries, lithium batteries can be opportunity charged without any damage or life reduction to the battery. The fast charging system means the batteries can be topped up at break times or at convenient intervals throughout the day, minimising downtime.

Find out more **here**

Specifications:

Lifting Height:	5.9 m
Weight Capacity:	2.6 t
Recharge Time:	3 hrs 45 mins
Running Time (max):	6 hrs
Zero CO_2 Emissions	✓
Noise Reduction	✓
Bio Hydraulic Oil Available	✓

Wacker Neuson DW15E Fully Electric Dumper

Emission-free thanks to electric drive, but with the same performance parameters as a conventional dumper. The electric drive makes this machine the ideal material handling support, where no exhaust emissions or noise output is wanted or allowed, such as inner-city areas or building interiors.

Easy to charge at any conventional household socket using the integrated charger. This intelligent machine features two separate electric motors for the drive system and working hydraulics, which help minimize energy consumption.

Find out more **here**

Specifications:

Payload:	1.5 t
Operating Weight (max):	3.5 t
Recharge Time:	8 hrs
Running Time (max):	6.5 hrs
Zero CO_2 Emissions	✓
Noise Reduction	✓
Bio Hydraulic Oil Available	✓

JCB 19C-1E Fully Electric Mini Excavator

The industry's first fully electric mini excavator gives you the freedom to work anywhere with quick charging and delivers a battery life of up to 6 hours. It comes as standard with the addition of the new auto kick-up feature. This feature skilfully distributes power to preserve battery life whilst still allowing for a faster tracking speed. With no trailing tethers, zero emissions, low noise levels and JCB's 2Go safety system (where all services are isolated when the control pod is raised), this mini excavator provides the peace of mind you need to work safely and efficiently.

Find out more **here**

Specifications:

Operating Weight:	1.9 t
Recharge Time:	8 hrs
Fast Charge Option:	2 hrs
Running Time (max):	5 hrs
Zero CO_2 Emissions	✓
Noise Reduction	✓
Bio Hydraulic Oil Available	✓

“WORKING WITH OUR CLIENTS TO BUILD A BETTER, MORE SUSTAINABLE FUTURE FOR THE CONSTRUCTION INDUSTRY.”

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