

TANKERS PRESENT AND FUTURE

WHAT'S DRIVING THE HYDROGEN ECONOMY?

WHY CCUS IS KEY





Solution A Content B A Content B A Content B A Content B A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A Content A C

exocet[®] Future Fuels + is a performance fuel additive for paraffinic fuels conforming to BS EN15940 - Paraffinic diesel fuel from synthesis or hydrotreatment. The two fuels covered by the fuel specification are commonly known as GTL (Gas to Liquid), typically made from non-renewable natural gas, and HVO (hydrotreated vegetable oil), typically made from renewable vegetable oils.

BENEFITS OF USING EXOCET® FUTURE FUELS +

- Clean fuel injectors
- Prevents injectors sticking & over fuelling
- 🔶 Engine power maintained
- Neste recommend the use of deposit control and lubricity additives
- Improve lubricity

- Protects moving metal parts
- Prevents fuel filter blocking when mixed with FAME containing fuels

Call us today to order your additives on 01743 761415

Fuel Additive Science Technologies Ltd, Unit 29 Atcham Business Park, Shrewsbury, Shropshire, SY4 4UG Tel: 01743 761415 Email: sales@fastexocet.co.uk www.fastexocet.co.uk

Why is the mind like a parachute?

"There are two types of people: Those who want to know more, and those who want to defend what they already know."

I came across this recently and have no idea who originally penned it but, for me, it resonated with the current shenanigans on the pathway (pathways?) to the non-negotiable end game of a low carbon future.

It may well be a variation on Nietzsche's observation of the two types of people that make up this world; "those who want to know and those who want to believe" but, either way, both quotes hit the mark.

I have written before of the crippling impact of polarisation and how the crises we currently face only serve to increase it. Opinions on what may deliver the best solutions are not so much offered for discussion as held up with an air of defiance – daring anyone to even ask a question.

When it comes to the challenge to decarbonise, every new technology proffered is met with those who marvel how it has not previously been thought of, and those who declare: "What a bag of ****, that's never going to work".

Margaret Major, Managing Editor margaret@fueloilnews.co.uk www.fueloilnews.co.uk J 07786 267527

But there is a third, far harder to work with group – those who make the right noises and give every impression they are keen to learn but who, through inaction and indecision or, worse still, distraction, block progress at every turn.

They appear to listen but don't want to hear, they ask the questions but prejudge the answers, and they filter information for the aspects that support their existing point of view.

The challenge is far too complex to have one single 'fix-all' but this doesn't mean not seeking solutions or being open to multiple contributions.

Every 'solution' will have its difficulties but, to answer the question of why the mind is like a parachute - it's because it functions best when open and an open mind is far more likely to overcome those difficulties.

In this issue we again consider future solutions with an open mind. We can only hope that both policy makers and all those involved

in the energy industry do the same

FuelOilNews

The independent voice for the fuel distribution, storage and marketing industry in the UK and Ireland. Founded in 1977 by James Smith www.fueloilnews.co.uk



4, 5, 7 & 8 INDUSTRY NEWS

- **11** PEOPLE MOVES
- **12** KEN'S CORNER

13 FUTURE FUELS UPDATE

14 & 15 IN CONVERSATION The perennial challenge to balance efficiency and service.

17-19 INDUSTRY FOCUS Fuel Oil News joins distributors on a trip to see their tankers being built.

21-23 INDUSTRY ANALYSIS

What is likely to be fuelling your future replacement trucks? **25** A DAY IN THE LIFE

What keeps a group transport manager (and his dog) busy?

27 DIVERSIFICATION CORNER Employee initiatives delivering a greener future.

29 PORTLAND REPORT The place of CCUS in the environmental equation.

30 & 31 TRANSITION TALK

What is driving the hydrogen economy? **33** A SAD FAREWELL Our tribute to a popular and highly respected industry figure.

34 PRICING PAGE

35 IN PROFILE

There's something very fishy about this multi award-winner!



Claudia Weeks Content creator ☑ claudia@fueloilnews.co.uk J 07436 338241



Liz Boardman Content creator Iiz@fueloilnews.co.uk .1 07970 802999



Natalie Persoglio Social media executive ☑ natalie@fueloilnews.co.uk . 07485 372627



Rhian Burge Subscriptions ☐ rhian@fueloilnews.co.uk . 07485 372626



Adrian Major Sales manager adrian@fueloilnews.co.uk 207909 968982



On the cover

Peter Kinney and David McLoughlin from Valero (left) celebrate with John and Robert Weedon of Mitchell & Webber (right) as the first renewable liquid fuel shipment arrives into the UK from the US following removal of import tariffs.



In this issue

Our latest industry analysis asks what is likely to be fuelling trucks in the low carbon future while future fuels also feature on page 13, with the latest SAF production developments, and on pages 30 & 31, where hydrogen pathways are discussed.

Award dinner recognises remarkable achievements

Another sold-out UKIFDA Show & Awards Dinner this year saw some remarkable companies and people working within the liquid fuel distribution industry recognised for their achievements.

Guests enjoyed the impressive Coventry City football stadium backdrop, a fabulous meal and inspirational Great British gold medallist Amy Williams as the after-dinner speaker.

The Awards Dinner event, sponsored by Mabanaft, was the culmination of the UKIFDA Show & Conference 2023, a buzzing day of networking and knowledge. The first few awards of the night were presented at the President's Drinks Reception, sponsored by FoxInsights, with the other award winners announced as the evening progressed.



The UKIFDA President's Award This year, a special award – the UKIFDA President's Award –was presented to Mitchell & Webber's John and Robert Weedon in recognition of their work championing the future ready fuel campaign.

John, Robert and the team have worked tirelessly with others in the industry to improve the awareness of renewable liquid fuels and were surprised, but delighted, to receive this welldeserved and prestigious award.



Joint winners for the UKIFDA Innovation Award Proudly sponsored by Fuel Oil News, the innovation award recognises and celebrates the liquid fuel industry's most innovative products or services.

With both companies having developed products that make significant contributions to the future of the sector, the award was won jointly by Aga-Rayburn and Grant Engineering.

Congratulations also to AMCS Group and Commercial Fuel Solutions Ltd who were shortlisted for the award for their own excellent contributions.



The inaugural UKIFDA Customer Service Award New this year was the UKIFDA Customer Service Award 2023, sponsored by Worldpay from FIS.

Revealed on the night, and a very popular choice, the winner was Helen Rawthorne of WCF Fuels. Exemplifying the very best of customer service, colleagues said Helen is a joy to work with, has a can-do attitude and is often asked for by name.

Many congratulations Helen!



UKIFDA Driver of the Year

Sponsored by OAMPS, this is always a fiercely contested category with so many excellent drivers in the industry making a vital contribution to their companies and the customers they serve. Many congratulations, therefore, to Stephen Harris of Certas Energy, who won the 2023 award.

Stephen was recognised for his valuable commitment to customers – especially in recent challenging times.

Congratulations also to the runner-up drivers Tomasz Tomkowiak from WCF Chandlers and James Walker from Allan Stobart – both highly worthy of the recognition.



UKIFDA Depot of the Year

The winner of this year's award, sponsored once again by Pen Underwriting, was NWF Fuels – Mansfield Depot

Driving the standard of safety forward for a distributor depot, this award was decided by UKIFDA's Tony Brown who audits the depots and noted how close the competition was again this year with congratulations also going to the runners up – Certas Energy's Drem Depot and Tincknell Fuels' Gillingham Depot.



UKIFDA Young Person of the Year Award

Presented by inspirational Great British Olympic gold medallist Amy Williams, this year's UKIFDA Young Person of the Year 2023 award went to George Brinkworth of Ford Fuels.

George was nominated for his help ensuring a continuous supply of fuel into the company's depots at all times with the award extremely well-deserved.

Congratulations also to the two runners up, both from Watson Fuels – Ellie Norfolk and Karina Kunickaite.



UKIFDA Green Award

Congratulations to Certas Energy who won the UKIFDA Green Award 2023, sponsored by Oilshield.

This award celebrates commitment to achieving a decarbonised future for the liquid fuel distribution sector and judges were particularly impressed by Certas' drive to take its green strategy across its business and beyond, with the company demonstrating sustainable principles, standards and products.

Greenergy and WP Group were also shortlisted and noted for their own efforts in decarbonisation.

Celebrating success

Summarising the evening's event's UKIFDA CEO Ken Cronin, commented: "This year's backdrop for the UKIFDA Show & Awards Dinner 2023 was the home of Coventry City Football Club, which is enjoying success this season much like our fantastic award winners!

"Congratulations to you all and thank you once again to all our sponsors for their support, to our wonderful exhibitors and, of course, the 750 delegates who brought the event to life."

Second 2023 acquisition expands Rix renewable offering

J.R. Rix & Sons Ltd has completed its second acquisition of 2023 in a move that further extends its offering in the renewable energy sector.

The Hull family group, which is headquartered in Two Humber Quays on the city's waterfront, has acquired Driffield company HART Plumbing & Heating, which will become Rix Plumbing Services as part of the deal. The acquisition follows the purchase of J Foley Electrical Ltd, also based in Driffield, which was completed in March this year.

Expanding renewable energy suite

J Foley Electrical – which became Rix Energy Services Ltd – specialises in sustainable technologies such as solar panels, batteries, and electric vehicle charging points, and Rix Plumbing Services builds on this with the addition of air source heat pumps.

Together, the two businesses enable J.R. Rix & Sons to deliver a full suite of renewable energy technologies to domestic and commercial customers across East Yorkshire.

Duncan Lambert, managing director of Rix Petroleum, said HART Plumbing & Heating was highly regarded in Driffield and the surrounding areas, with an excellent reputation. He added that the business has knowledge in fitting air source heat pumps,



Chris Hart (L) shakes hands with Duncan Lambert (R), Managing Director of Rix Petroleum Ltd.

and it was this that made the company an attractive proposition.

Duncan said: "At Rix, we recognise that future energy provision has to be from sustainable sources, so our aim is to help new and existing customers, both domestic and commercial, transition to renewable technologies from gas and oil.

"Strategic acquisition has always been part of this journey, and we feel that in these two deals, we have found businesses that share our vision and understanding of how being part of a large group will enable them to scale and help many more customers.

"With J Foley Electrical now well integrated into the group, and the purchase of HART Plumbing & Heating complete, we are fully geared up to provide a wide range of sustainable energy solutions."

Huge potential

Chris Hart, the owner of HART Plumbing & Heating, said it had been a difficult decision to sell his business, but added that the Rix Group shares his values of 'service and integrity'. As part of the deal, he will continue to manage the business in its new guise as Rix Plumbing Services.

Chris said: "The decision to sell was not an easy one but I have recently trained to fit air source heat pumps – an opportunity with huge potential – and I believe that the best way to move forward is with a bigger company like Rix.

"As a long-established and substantial business, Rix will be able to provide the administrative support, finance and access to the best products that will give me the ability to realise my ambition and vision to grow the business."

Certa Ireland unveils first HVO forecourt pump

Described by a spokesperson as "Another important step in our journey towards a more sustainable future", Certa Ireland has announced that Ireland's first HVO pump to be situated on a 'pay @ pump' forecourt has been located in Certa Lee Tunnel in Cork.

Certa, one of Ireland's largest fuel distributors, announced in March this year that its entire fleet of over 100 delivery vehicles had transitioned from running on diesel to being fuelled by HVO. Speaking at the launch of Certa's HVOfuelled fleet, Andrew Graham, managing director, said: "Our transition to HVO fuel for our fleet shows our commitment and belief in HVO as a viable, commercial diesel alternative. We're very proud to be one of the first Irish companies to make the switch and hope to encourage wider adoption."

The new forecourt pump is the next step in making HVO more widely available and will be a convenient outlet for commercial customers in the area who have transitioned to the biofuel.



Deliver More.

For Your Customer. For Your Team. For Your Business.

We partner with fuel distribution companies to provide a fleet, stock and data management system that comprehensively streamlines your operations.

From improving business productivity, elimination of paper, accountability and the reduction of administration costs, DreamTec offers the perfect system to effectively manage your stock and resources to help your business grow.



For more info: enquiries@dreamtecsystems.com www.dreamtecsystems.com

IRL: +353 1 257 0400 UK: +44 161 210 2129 USA: +1 437 887 1443

NEWS

WFS enables continuous SAF supply at airport

Airports operator HIAL (Highlands & Islands Airports) has begun offering a continuous supply of sustainable aviation fuel (SAF) at Scotland's Inverness Airport where there is an ongoing demand beyond previous supplies for one-off events or trials.

The cleaner fuel product is supplied by World Fuel Services as a 35% blend and is available to all flight operators at the airport.

A vital role

HIAL managing director Inglis Lyon said: "At HIAL we are committed to reducing our environmental impact. As an operator of 11 airports, it is important to work with aviation partners to decarbonise flights within Scotland, and SAF will play a vital role in helping meet



Keeping it in the family

February's issue this year featured an 'In Conversation' in which we caught up with Steve Keep, a retired HGV driver, and his daughter Louise, learning all about their roots in the fuel distribution sector as well as what has changed and remains the same.

Steve originally featured on the cover of Fuel Oil News magazine, back in 1982, as a young, learner tanker driver making his way through the snow to ensure customers stayed warm. 41 years later, Louise got in touch to let us know that she was following in the family footsteps, having qualified as an HGV driver at the end of 2022 and the new article followed.

We recently received this photo from Louise who said: "My dad (Stephen Keep) is on the left with the 1982 magazine. My Uncle Mike (Michael Keep) is on the right with the 2023 magazine and I'm in the middle holding a picture of their late dad, my grandpa, John Walter Keep (of J. W. Keep Fuel Oil)."

This sector has always been, and still is, all about the individuals who play their part, so do keep sharing your stories with us. You'll also be glad to hear Louise is loving life on the road! the Scottish Government's target to create the world's first net-zero aviation region by 2040.

"Making SAF available at Inverness will hopefully be a catalyst for its wider introduction across the Highlands and Islands, giving those flying in and out of our airports a real the choice to support decarbonisation and sustainability goals."

Committed to cleaner fuels

Duncan Storey, vice president, Supply Aviation Europe at World Fuel Services said: "World Fuel Services is committed to the industry's goal of reducing carbon emissions. Since 2015, we have delivered more than 39 million gallons of sustainable aviation fuel to business and commercial aviation customers worldwide.



"Making sustainable aviation fuel available at Inverness furthers the adoption of cleaner fuels. World Fuel will continue investing in innovative solutions and expanding renewable and lower–emission fuels and energy offerings to help advance the industry on its path to net zero."

Acquisition further electrifies Greenarc services

Greenarc Limited, the nationwide fuel, clean energy and infrastructure company has announced its third investment in less than nine months with the acquisition of Lancashire-based company Elektec.

The purchase of electrical contractor Elektec follows Greenarc's investment in Oxfordshire-based Heat Engineer Software Ltd in April and the acquisition of the recently rebranded vehicle leasing and rental business, Greenarc Vehicles, which was completed in November.

Chris Bingham, Chairman and CEO at Greenarc comments: "This recent acquisition is one of many investments from Greenarc in the past twelve months and we are thrilled to welcome Carl and Charlotte to the business to support our goal of transitioning our customers to a clean energy future.

"With Elektec's focus on EV charging points, battery storage, LED lighting, electrical compliance and more recently solar we have further increased our low-carbon service offering. This acquisition represents another important pillar of our decarbonisation proposition to individuals, businesses, and the public sector across the UK."

Low carbon solutions

Charlotte Knowles, director at Elektec said: "This acquisition allows us to continue to offer our electrical services locally, but also provides Elektec with the expertise and funding to grow our services to customers.

"Not only this, but we now have access to a range of other renewable energy solutions to support our customers to decarbonise their entire energy infrastructure.

"Greenarc's honest and informative approach to clean energy fits in well with what we do at Elektec. We are thrilled to be joining the Greenarc team and I'm excited about the future work we will be achieving together."

Multi-award winning Elektec, established in 2017, was recently named a National Success Story for The Prince's Trust with the team personally invited to meet with King Charles III in July 2022.



NEWS



Supplier golf day will raise vital funds for children's charity

Fuel suppliers are invited to participate in an industry golf day that is being held on the 28th of June at St Ives (Hunts) golf club to raise money for Dreamdrops, a children's charity doing fantastic work.

Dreamdrops makes a real difference to children and families who use hospital or specialist children's health facilities. Aiming to make life a little easier when it can be at its most stressful, the charity provides all those little (and large) extras that are not covered by public funds.

The funds raised by the charity are also used to help sick children who are cared for at home. You can read more about the charity's work here:

https://dreamdropschildrenscharity.org/

Fun networking opportunity

Organised by Boilerjuice, the event is a great opportunity for oil suppliers to come together to enjoy networking and a game of golf. Participation is free, though anyone wishing to join in the fun is requested to make a donation via the specially created Justgiving page.

Any suppliers interested in attending or looking for more details need to get in touch with event organiser, Carl Bingham by email: carl.bingham@boilerjuice.com.

With refreshments on arrival, 18 holes on the inland links course followed by a meal and prize giving the day will be an enjoyable one!

Donations can be made on the Boilerjuice Charity Golf Justgiving page: www.justgiving. com/fundraising/boilerjuice-charity-golf

ULEMCo to lead £8m hydrogen fuel cell project

Hydrogen fuelled vehicle pioneer ULEMCo has been awarded a total of £7.9 million to develop solutions for hydrogen powered vehicles.

With £3.9 million of government funding matched by industry, the 'HYER Power' project will develop a hydrogen fuel cell range extender module that will integrate into electric vehicles used for specialist applications such as ambulances, fire engines and street sweepers.

End-to-end supply chain

The funding has been awarded through the Advanced Propulsion Centre Collaborative Research and Development programme, in support of ambitions to build an end-to-end supply chain for zero-emission vehicles in the UK.

The work will lead to a manufacturing-ready, zero-emission hydrogen fuel cell based range extension system for electric drivetrains. Key outcomes will include a production-ready zeroemission ambulance, a fully working prototype fire pumping appliance and an HGV road sweeper.

"We are delighted to see this recognition and commitment to developing hydrogen mobility as part of the solution to net zero," said Amanda Lyne, managing director of ULEMCo. "Hydrogen is essential for viable zero-emission solutions in applications such as emergency response vehicles due to the rapid refuelling that enables the vehicle to be 'fit-to-go', and to provide the full flexibility and range required.

"The packaging constraints and the overall energy demand needed for these vehicle drivetrains as well as the onboard equipment, mean that hydrogen solutions are the most cost-productive route to transition to zeroemission fleets. Our strong relationship with project partner, Oxford City Council, will enable us to make rapid progress moving to productionready hydrogen fuel cell designs."



Successful MP drop-in session brings further support for HVO

On 24th April, industry trade bodies UKIFDA and OFTEC held a joint drop-in session for MPs in Westminster. 26 MPs or their researchers attended the highly successful event with a number of MPs who were unable to make the event in person requesting information, taking the total number engaged with nearer to 40.

The event was an opportunity to explain the benefits of HVO, and to launch a detailed study on the 17 homes in the village of Kehelland that are participating in the industry led HVO demonstration project.

Malcolm Farrow, head of public affairs for OFTEC, commented: "The MPs appeared wellinformed about the challenges of decarbonising off-grid heating and all were interested in and broadly supportive of our plans – some extremely so."

The event followed a programme of engagement led by the industry trade bodies and was timed to maximise impact ahead of the second reading of the Energy Bill. The industry's ongoing efforts to engage with government on the subject are clearly succeeding, as was reflected at the reading with several MPs seeking to promote the use of HVO as well as voice their concerns about affordable decarbonisation of off gas grid homes. The need for greater technology choice was also highlighted.

Ken Cronin, CEO UKIFDA, welcomed the increasingly vocal cross-party support for renewable liquid fuel as an immediate, and affordable, solution to home heat decarbonisation but also stressed the need for the Government to hear the clear message and act now.

Ken shares more of his thoughts on page 12 of this issue.

OFTEC and UKIFDA will continue to work to build further support and momentum for the campaign, which seeks to amend the Energy Bill to see the creation of an RTFO-type support scheme for renewable liquid fuels in heating, and to see the duty levied on HVO aligned with kerosene.

One of Europe's most advanced refineries.

Phillips 66 Limited's Humber Refinery is one of Europe's most advanced. When combined with far-reaching infrastructure, it helps shield against supply interruption.





The Market Leading Software for Today's Liquid Fuels Distributor

for downstream liquid fuels distributors.

CODAS has over CODAS is used in over 2.300 users 300 LPG & Oil n Oil distributio depots acress the UK and Ireland **businesses** CODAS has over CODAS-OTC is CDS has been deployed in over developing software for over 600 users 1,400 in LPG distribution 50 years LPG and Oil **businesses** distributor vehicles Contact us to find out what CODAS is a suite of software designed to meet the full range of specialist requirements CODAS and CDS can do for your business. From prospecting for new business, customer and sales activities, load scheduling and 0161 832 9251 routing, purchasing and stock control, to a full business financial suite supported by the

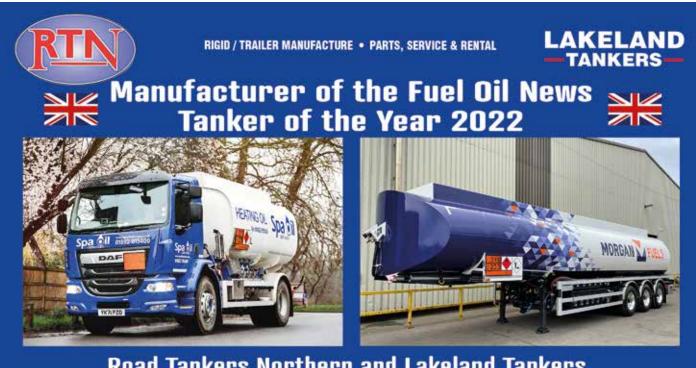
sales@codas.com

www.codas.com

UNIVERSARY

reporting of management information, CODAS has been proven to dramatically improve operational efficiency, increase sales and profitability as well as reducing costs.

With CODAS as your chosen software solution, richer engagement with your customers and maximised operational efficiency lie at your fingertips. With CDS as your services partner, comprehensive and attentive support with unparalleled commitment to the success of your business is our guarantee.



Road Tankers Northern and Lakeland Tankers the UK's leading road tanker manufacturers of aluminium semi-trailers, fuel/lubricant and LPG tankers

Road Tankers Northern, South Yorkshire 01226 350 650 www.rtnltd.co.uk

Lakeland Tankers Ltd, West Midlands 01384 421 199 www.lakelandtankers.co.uk

PEOPLE MOVES



DESNZ advisor Mike Mackay has been appointed as Chief Transformation Officer to head up transformation at Essar UK with Mike also joining the company's Executive Leadership Team.

With over 25 years of experience in the oil and gas industry, Mike also has extensive knowledge of refining and the downstream oil sector in the UK. He recently returned to Essar from a successful secondment in the Department for Energy

Security and Net Zero as the UK downstream oil sector's advisor to Government.

Essar chief executive officer, Deepak Maheshwari, said: "We would like to welcome Mike back after his secondment. This is an important appointment to a senior position within the company. Mike will work closely with me to improve business performance and reliability across Essar Oil UK."



Essar has also announced the appointment of **Tony** Fountain, managing partner at Essar Energy Transition, as a non-executive board director to support the delivery of Essar Energy Transition (EET) ambition to lead the UK energy transition

Prashant Ruia, Non-Executive Chairman of Essar, said: "We would like to welcome Tony to Essar's Board. He brings over 40 years of operational, regulatory and executive experience that

will enhance our business at this vital stage in our transition.

"We are committed to leading the energy transition and Tony's appointment will play a crucial role in achieving this ambition."

Tony commented: "I am pleased to be invited to Essar's Board. The company is committed to be amongst the first low carbon refineries globally and to play a key role in the decarbonisation of the North West.



The **Prax Grou**p has appointed **Ben Lahnstein**, who previously worked for Prax as Acting Chief Financial Officer and as Global Head of Corporate Finance and Treasury, as Chief Financial Officer.

With more than twenty years of investment banking experience focusing on debt structuring and debt capital markets across a wide range of industries and geographies, Ben brings a wealth of knowledge to the role and a proven track

record of financial leadership.

Gerry Jones retired from Dunraven Systems at the end of April after 20 hugely successful years. Having founded the company in 2003, Gerry managed the monitoring solutions provider through rapid expansion of solutions, services and operations to become the self-made market leader in the industry it is today.



The Chemical Business Association (CBA) has announced the appointment of Anthony Robertson as its Financial and Administration Lead.

Robertson commented: "I am delighted to be joining the CBA at such an exciting time. The team have clearly defined plans for the future, and I am excited to help them deliver on their vision."

The Solent Cluster has appointed of Zoë Colbeck as

its new Project Manager to provide a focal point for Cluster activity and help drive the vision for the Solent to become a leading centre for low carbon investment.

Suttons International has announced the appointment of Jonathan Mackie to the role of



Commercial Director, as part of the business' growth strategy.



OTS Group Board appointment will support expansion in evolving liquid fuel sector

Leading provider of bulk fuel and liquid waste storage tanks and tank maintenance services, OTS Group, has announced the appointment of Keith Felton as non-executive chairman of the board, bringing expertise to the company as it embarks on a new phase of growth and expansion.

In his new role, Mr. Felton, who has a wealth of experience in business growth, will serve in an advisory capacity, providing guidance and motivation to the OTS Group team as they navigate the rapidly evolving liquid fuel storage industry. His appointment comes at a crucial time, as the Group delivers a strategic plan to increase profitability, expanding its product and services range and market reach.

With a diverse background including a strong foundation in finance, Mr. Felton's extensive experience has honed his ability to develop and nurture talent. By focusing on training and fostering a collaborative environment, Keith will provide the best advice to empower the OTS team to make successful changes and confidently move forward into the future.

Instrumental

"Keith Felton's appointment as non-executive chairman marks a significant milestone for OTS Group as we strive to solidify our position in the fuel storage and tank maintenance industry," commented Steve Gain, managing director of OTS Group. "His experience and insights will be instrumental in helping us chart a course for future growth and success."

With Mr. Felton's guidance, OTS Group will focus on improving its online presence and marketing efforts, as well as investing in new equipment, staff and training, to support the company's growth and expansion goals.

KEN'S CORNER



Are you sitting comfortably?

I am writing this on the train back from Coventry, where the UKIFDA Show & Conference took place. During the event, many people came up to me and commented on the positive vibe, with special mention given to Amy Williams, our excellent afterdinner speaker.

I can't help but reflect on how much we have progressed as an industry over the last few years and how much remains left to do.

I believe Rupert Turner of P66 had it just about right in the conference opening keynote speech – no one in the room should be sitting feeling comfortable.

The impressive turnout for the keynote and the subsequent roundtable on future fuels demonstrate the progress we have made. Industry leaders are now focused on what the future holds and are committed to providing a heating solution and affordable fuel to our customers.

An unequivocal message

There is at least one other group that should not be sitting comfortably, and that is government. Regardless of the media debate surrounding hydrogen and heat pumps, the general public has sent a clear, unequivocal and, yes, uncomfortable message to the Government over the last 12 months. At the conference, we learnt that kerosene sales have decreased by 18% and domestic gas sales by 16% since the Ukraine invasion. This is a clear message that a significant number of people cannot afford the increases and are therefore reducing their consumption. According to Malcolm Farrow from OFTEC, a recent survey revealed that approximately 75% of councillors believe their constituents are concerned about the affordability of decarbonising their heating.

While some may view this as a positive step towards decarbonisation, the issue of affordability remains a prominent concern. Citizens Advice recently issued a warning that net zero retrofit costs will be unmanageable for most homeowners at just under £15,000 per household. Citizens Advice also warned that half of households have savings of less than £10,000, and more than one in ten have no savings at all.

As we know, there are solutions out there – but we need to be practical, technology agnostic and, above all else, flexible.

Elizabeth de Jong of UKPIA reiterated the need for recognition and support for low carbon fuels and this was supported by evidence from the Future Fuels campaign which stated that nearly 89%* of oil heating customers want a renewable liquid fuel as an alternative.

The Future of Trucks roundtable also delivered a strong message – a one size fits all

strategy *"will not fit all"* and immediate action is needed.

The day before the UKIFDA show the Energy Bill was debated in Parliament and, again, clear messages were given to government from across the political divide. Hilary Benn (Labour) commented: "I think we will need all the current technologies and all the technologies that have yet to be invented to meet this challenge." And George Eustice (Conservative) said: We need a diversity of different technologies because it is essential that we have all the tools in the box to achieve our objectives."

The title of this piece: "Are you sitting comfortably?" came from the iconic BBC Radio 4 programme, 'Listen with Mother', which started in the 50s and was later replaced by 'Listening Corner' in the 80s. The phrase has been widely used in popular music by artists such as The Moody Blues and Slade, as well as in TV shows and films like Doctor Who and Wargames. More recently, even PlayStation has referenced it.

The phrase may evoke nostalgic memories of an ageing relative sat in an armchair stroking a cat (maybe even Mogg – sorry, you had to be there). But, walking away from Coventry, one clear message is ringing in my ears – it is time for the Government to stop sitting comfortably and firmly move to the listening corner.

*Future Ready Fuel campaign household survey 2022



Jet2 announces major UK SAF investment

Leading leisure travel group, Jet2, has announced a major investment into a new Sustainable Aviation Fuel (SAF) production plant to be constructed in the North West of England – one of the first such deals in UK aviation.

The agreement will see the travel group invest an equity stake in the plant and expect to receive more than 200 million litres of SAF over a 15-year period, an agreement which, currently, would be one of the longest SAF supply agreements.

The Fulcrum NorthPoint facility, being developed by Fulcrum BioEnergy Ltd, is a Wasteto-Fuels plant which will be located at the Essar Stanlow Manufacturing Complex in Ellesmere Port, Cheshire.

Production of SAF is expected to commence at the plant in 2027 and, when at full capacity, 600,000 tonnes of non-recyclable household waste, which would otherwise have been destined for incineration or landfill, will be



converted into around 100 million litres of SAF annually.

The announcement will see Jet2.com, the UK's third largest airline, receive a significant volume of SAF produced at the plant once in operation that is expected to achieve net emissions reductions totalling around 400,000 tonnes of CO2 over the 15-year agreement.

Sustainable travel at the heart

Steve Heapy, CEO of Jet2.com and Jet2holidays said: "Travel and tourism is a force for good and, like all industries, we know how critical it is to mitigate our climate impacts.

"This significant investment into Fulcrum NorthPoint's Sustainable Aviation Fuel production in the UK shows not only how seriously we take that responsibility, but also how committed we are to taking tangible actions to address it. We are putting sustainable travel at the heart of our business."

Critical investment

He added: "This type of investment is critical if we are to get this technology up to the scale required to decarbonise the industry. Our investment is a very clear demonstration that we are backing SAF and the UK production of SAF early.

"We are calling on the UK government to scale up its level of ambition and support for SAF production too. Doing this will help achieve decarbonisation of the aviation sector, stimulate uptake and seize the enormous economic opportunity here in the UK."

SAF from sewage producer secures £5m investment

Wizz Air, Europe's fastest growing and most environmentally sustainable airline globally, has announced a £5 million investment in biofuel company, Firefly.

Wizz Air's first equity investment in sustainable aviation fuel (SAF) research and development will allow the airline to supply SAF to its UK operations from 2028, up to 525,000 tonnes over 15 years. The agreement has the potential to save 1.5 million tonnes of CO2-eq.

Firefly specialises in a process which converts sewage sludge, a low-value waste product available in large quantities, into SAF. More than 57 million tonnes of sewage sludge are produced in the UK each year, with the potential to produce 250,000 tonnes of SAF.

The process technology, which originated in the laboratories of Green Fuels, a pioneer in renewable fuels, has the potential to deliver a new feedstock pathway. The project encompasses engineering design and construction of a demonstrator plant, capable of generating the quantities of fuel to allow qualification to international standards. This, in turn, will lead to a first-of-a-kind commercial refinery and roll-out to several UK locations where airports, pipeline terminals and wastewater treatment works are in close



proximity.

Firefly's SAF, which will be independently certified against the leading sustainability standard RSB, is projected to deliver a 90% reduction in greenhouse gas emissions compared to fossil jet fuel on a life cycle basis. Firefly aims to have its first commercial plant operating within the next 5 years.

Leader in sustainability

The agreement with Firefly and investment in new SAF technology represents the latest milestone in Wizz Air's broader sustainability strategy and will drive its commitment to reducing its carbon emissions per passenger/km by 25% by 2030.

Michael Berlouis, head of strategic projects at Wizz Air, said: "In addition to fleet renewal and operational efficiency, SAF is crucial for reducing carbon emissions from aviation. However, feedstock availability remains the key challenge for the industry.

"Our investment in Firefly and its sewage sludge SAF technology is a major step forward. From 2028, we are aiming to procure 525,000 tonnes of SAF from Firefly over a period of 15 years."

James Hygate, CEO of Firefly Green Fuels, said: "We are thrilled to be establishing a partnership with Wizz Air. The investment will accelerate the commercialisation of our gamechanging Firefly process which will facilitate a step change towards the future of air travel.

"The feedstock, sewage sludge, is available in vast quantities globally and with Firefly we can put it to a truly beneficial use, reducing the use of fossil fuels in the hardest to decarbonise areas."

IN CONVERSATION

Dave Walmsley: enthusiastic for NWF Fuels expansion

DAVE WALMSLEY WAS APPOINTED MANAGING DIRECTOR OF THE FUELS DIVISION OF THE NWF GROUP IN NOVEMBER 2022 HAVING PREVIOUSLY HELD THE POSITION OF MANAGING DIRECTOR OF SIG DISTRIBUTION AND SENIOR POSITIONS AT PALLETWAYS AND LYRECO. MARGARET MAJOR, MANAGING EDITOR OF FUEL OIL NEWS, CAUGHT UP WITH DAVE TO FIND OUT HOW FUEL DISTRIBUTION DIFFERS FROM HIS PREVIOUS ROLES AND WHAT HE HOPES TO ACHIEVE AT NWF.

How did you arrive in the fuel sector?

I've always been involved in distribution in one form or another but started out in retail as a John Lewis management trainee in Liverpool, moved into sales, then spent 25 years with office supplies company, Lyreco, during a time of rapid growth and the beginnings of online sales.

It was a great place for early online experience, and I grew with the company, living in Scandinavia for seven years and Brussels for three. After 10 years of travelling, there was never an easy answer to the question 'where are you from?' So, deciding it was time to put down roots, we returned to the UK in 2015, settling in Shropshire where my wife is from. I live in Shrewsbury, which is an absolutely beautiful place, but was born in Liverpool and my two boys, both massive Liverpool fans, have not yet forgiven me that their place of birth doesn't match mine.

Having achieved all I could with Lyreco, I was after a new challenge and moved into palletised freight of heavy goods, which was my first step towards larger vehicles like oil tankers. After a few years, I moved to SIG, a distributor of building products which, similarly to oil distribution, is a sector with no backhaul. I was there for the best part of three years before joining NWF.

A balancing act

Looking back over my route here, all the industries I have been involved with are highly commoditised. They involve the movement of products that are, in themselves, not very exciting to customers who are very aware of the price they expect to pay – something that was further enhanced with the arrival of the internet and online sales.

Against this backdrop, my role has always been to accept the degree of commoditisation and work out how to distribute as cost effectively as possible, whilst still giving fantastic customer service and not indulging in a race to the bottom.



Moving fuel around is an extremely expensive operation and, with all the wildcards that have been thrown at the sector – COVID, cost of living, the Ukraine war, every cost has increased. The combined investment in truck, fuel, driver and maintenance results in a high cost per mile to move product, so it is vital we control those costs.

Similarly to my other distribution roles, we are constantly balancing best customer service with the practicalities of routing efficiency. Most experienced drivers will know the best route sequence, but we also test that with technology to deliver optimum efficiency. Even then, just when you have a route perfectly planned, there will be a customer that's run out of fuel that you will try to accommodate and that's one of the challenges of this industry.

Domestic users on mains gas take for granted that it's always there and I feel it should be exactly the same for a domestic customer who heats their home with oil – they shouldn't be worrying about it.

Our business is currently split around 70/30 in favour of commercial customers, depending, of course, on the time of year, but one of our stated intentions as a company is to grow our domestic depot base. The commercial side is more consistent through the year, so it's about balancing our vehicles between commercial and domestic. The recent acquisitions we have made – Sweetfuels, at the end of last year, Darch Oil, Consols Oils in Cornwall – are all predominantly domestic businesses.

We have a very loyal and consistent customer base, but we don't take it for granted. I've used the word commodity quite a lot and, with the backdrop of energy price hikes, our domestic customers are certainly very aware of what they are spending. However, while the price moves through the year, and in recent times more than most, at the point at which you want to buy the potential price saving of shopping around for heating oil should never be that dramatic. We're all buying from the same people, and we all have similar cost to serve as well in reality.

What's different about distributing fuel?

The industry is dominated by the suppliers and my first year in the sector was one of extremely challenging supply for a variety of reasons. In my first few months I met with our major suppliers and found myself asking them all the same question: "Is supply really like this in this industry?" They all smiled wryly and said: "No, this is extreme – we've never seen it like this in in 20 years."

And it was extreme – I had to get used to my teams fighting to buy a product on a daily basis, which was something I'd never experienced before. And that's the other major difference: you're in a live trading environment every day, buying and selling fuel on a daily basis, as are all our competitors, and that's extremely unusual.

In my previous experience of distribution, the supply chain is such that you've planned what you're going to buy, negotiated prices, and calculated a customer price based on cost and profit. With the buying price moving extremely rapidly in the oil industry, the customer's price does the same so supply and



price volatility are definitely challenging.

Have supply challenges changed the degree to which your supply is contracted?

With 26 depots around the country and an additional 5 sites where we have vehicles based, it varies according to need. Most suppliers would say there's a happy medium and we contract or not according to the needs of each site.

The number of sites within the NWF Groups is one thing that is not dissimilar to my previous roles. Being a depot-based business, I split my time between our locations, frequently going 'on tour' to where the main customer interactions happen.

Online sales are growing, and we also work with online marketplaces. But despite the growth in these sales, the vast majority are still through customers picking up the phone or the result of us calling them.

Where do you see future expansion?

With the competitive nature of this business, where we are is, broadly, also where our competitors are going to be. To minimise costs, we're all based in industrial areas not city centre offices. It's this need to be as competitive as possible that drives our acquisition strategy to acquire depots that are geographically close to our existing locations, filling in the gaps to increase vehicle efficiencies and improve the cost base.

Sweetfuels is a great example of that, sitting as it does between 4 of our other depots.

We do have other acquisitions actively in the pipeline, and are always open to talking to those considering selling especially small, medium and large family-owned businesses in the right geographical locations to expand our footprint. On top of achieving adjacent acquisitions we are extremely keen to expand our geographical footprint across the UK into off the grid locations we currently do not serve directly.

So what's the future for liquid fuel distribution?

There seems to be a fairly low demand for low carbon products such as HVO currently, but the fuels sector is always evolving. Our role is to deliver what customers need now as efficiently as possible while simultaneously preparing for the future.

Our team of people has huge pride in their roles in the industry. With our structure, each regional depot has a tight geography and a key local identity with their own idiosyncrasies and benefit their local communities with things like local vehicle servicing. They are also able to enjoy the benefits of being part of a much larger group, operating the same system and product portfolio as well as being able to share best practice and even practical help where needed.

One big team

Our depot managers assemble for an annual conference and also meet in regional groups. A monthly company-wide webinar in which we

share information and invite questions keeps everyone updated and it is important to us that our employees all feel part of the NWF Group. We have 350 in total with 150 of those being our brilliant and remote drivers. Head office is actually very small but staffed with a superb bunch of people who support the national footprint.

People development is one thing I think NWF does very well. There is an excellent internal development programme and young people are encouraged and equipped to grow within the organisation. It's not unusual to see someone in their mid-20s promoted to running a depot, supported by a regional manager but fully responsible for the P&L, drivers and office staff.

The importance placed on customer service balanced with efficiency runs throughout the company and is something I always enjoy seeing in action on my depot tours. When I get time with those promoted to new roles, I always share the best advice I was ever given – not to ever be afraid to say: "I don't know. I was wrong. I need help." That's how you learn.

There is energy throughout the business. I am hugely enthusiastic for the future for NWF as we add more structure to our plans for growth both organic and through acquisition.

Success for me will be to see NWF continue to acquire businesses that are the right fit for us by developing a great internal team. And to continue giving the best customer service in the most efficient way – whatever product we are distributing.



ACHIEVE DECARBONISATION STRATEGIES

On Mabanaft's own unique online service, which makes the process of buying fuel quick and easy. You can choose the option to decarbonise any order with a simple click of a button, causing no disruption to your usual operations.

mabanaft.co.uk



INDUSTRY VOICE



Cobo – tankers, tours and tapas

A SPANISH COMPANY, WITH ITS HEADQUARTERS BASED CLOSE TO THE PORT OF SANTANDER, COBO RECENTLY ORGANISED A HIGHLY SUCCESSFUL TRIP FOR FUEL OIL DISTRIBUTORS TO TOUR THE FACTORY AND SEE TANKERS IN THE VARIOUS STAGES OF PRODUCTION INVITING THE FUEL OIL NEWS TEAM ALONG TO EXPERIENCE THE FAMOUS HOSPITALITY FIRSTHAND.

Founded by two brothers, Pedro and Federico Cobo, in Northern Spain in 1955, Cobo is a company dedicated to the manufacture, repair and sale of tanker trucks and semi-trailers and now considered one of the leaders in the production of tankers for the transport of petroleum products. The family are still very much involved; the business is now managed by Don Federico Cobo and Don Fernando Gomis. The family are clearly passionate about their business, their customers and the quality of the products they offer.

The Cobo Conference

Claudia Weeks, and Margaret Major, Fuel Oil News, sat down with Joby Clark, sales and project engineer at Cobo, to find out what makes the Spain trip such a highlight of the year for the community:

"On the 20th of April this year a contingent of existing and potential customers headed to the Cobo factory near Santander for a factory visit.

"We like to run our "Cobo Conference" at least once a year as we feel it is a great way for people to gain confidence in the company as they get to see the quality and organisation of the facility in Spain.

"A total of 29 existing and potential customers visited on this trip, and it was possible for some of these to see their own units in build. "We organised flights out of Stansted early on Thursday morning, which meant that some of us stayed at the airport on Wednesday night, proving a good way to start introductions for people in a relaxed environment.

"After landing in Spain, we headed straight to the factory for an introduction and short presentation on the design of the tankers and some of the technologies we use in production as we feel this gives a good insight into the quality of the product.

"After that we split into smaller groups for the factory tour so our guests could get a better understanding of how the units are built and could see for themselves the quality and the modern technologies employed."

INDUSTRY FOCUS

Clive Morin, managing director at Barton Petroleum Ltd, attended the trip and commented: "We really enjoyed the visit. There was an excellent presentation from Joby Clark when we arrived and a very impressive factory tour. It certainly gives you confidence in the product you are purchasing. We currently have five vehicles on order this year and have now placed our orders for 2024.

"The hospitality from all at Cobo was excellent," Clive continued. "And, of course, the sunshine was a welcome addition. It was also a good opportunity for some networking over the odd glass of wine or beer, or both in some cases! All in all, a fantastic and worthwhile trip."

Joby continued: "Once the tours were complete, everyone enjoyed a lunch of typical Spanish fare in the spring sunshine. A bit of free time late afternoon gave our visitors the chance to have a good look around the safe and friendly city of Santander before meeting up again for a few refreshments and a traditional evening meal.

"The trip, yet again, proved to be a great success, and it's fantastic for people to see the facility and gain confidence in the product and company. By hosting a large group at the same time, people have the opportunity to network, and potential customers can get an honest answer from existing customers about their experiences of buying a Cobo tanker."

Investment reflected in quality

It was clear that all the guests of Cobo were thoroughly impressed by the tour of the facility which opened in 2001 and now employs over 130 staff. It was fascinating to see the factory in action; there was a real buzz of activity.

The factory was vast in size, modern and clean. There were many tankers at various stages of the build process, with the Cobo team hard at work on each stage. It was clear



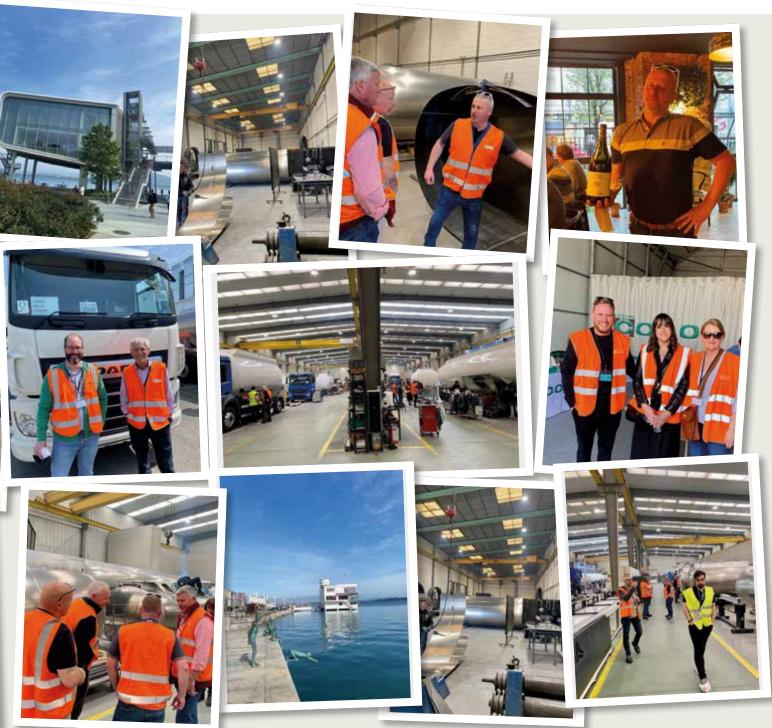
that each process is carried out with a very impressive level of attention to detail. It was also great to see state of the art machinery in action, especially the automated process that delivers Cobo's superior weld quality.

Lynn Casson, general manager at WCF Chandlers, attended the trip and has also recently placed an order with Cobo: "What a great trip to Santander. Having already ordered four tankers from Cobo, it was great to visit the factory and see the build process in person. It was clear that there's a great sense of pride in what they do, and I look forward to receiving the finished results!" The Cobo family are clearly proud of their facility and actively encourage visits and tours, but they aren't stopping there! Future investment is already being planned by the team; they have plans to change the layout of the factory and further improve efficiencies as well as starting production of LPG tankers.

Martin O'Reilly, from Shamrock Haulage Ltd, explained why he is so impressed by Cobo: "Having bought three semi-trailers from Cobo two years ago, I was lucky enough to be invited to their manufacturing plant in Santander. I could see first-hand how the trailers were put into production and built from start to finish which was an eye-opening experience.

"Not only did it give you an insight into the build quality but also allowed you to give your opinions and suggestions as an owner which the Cobo team were more than willing to listen to and take on board. I would personally like to thank everyone from Cobo who looked after us and treated us so well especially Joby, Lupo, Manuel, Ryan and Reise."

Echoing Martin's words, the Fuel Oil News team would also like to say a huge thank you to Joby Clark and all the team at Cobo Tankers and Services Ltd for the invitation. We can't wait to see what the future holds for Cobo.



The Most Accurate and Affordable Tank Level Monitor

Gain instant ROI with our award-winning monitor, online portal and free branded mobile app with no upfront costs.

Starting at €1.5/month

OTODATA Fuel Innovation

- ✓ Robust industrial design
- ✓ Industry leading battery life *up to 20 + years*
- ✓ Works with all tanks and software
- ✓ GPS positioning
- ✓ The only dual SIM with CATM and NBIOT cellular technology
- ✓ Five-year warranty
- ✓ Quick and easy installation
- ✓ No internet or gateway needed
- Free branded app and promotional materials
- ✓ Volume discounts available
- No minimum quantities required
- No activation fee or hidden costs

Contact us today to learn more!

1 (844) 763-3344 | info@otodata.com | otodata.com

f 17 in O

INDUSTRY ANALYSIS



TRANSPORT IS THE LARGEST EMITTER OF CO2 IN THE UK. AS THE GOVERNMENT CONTINUES AT PACE WITH ITS POLICIES AND PLANS FOR DECARBONISING THE SECTOR, CLAUDIA WEEKS, CONTENT EDITOR AT FUEL OIL NEWS, EXPLORES THE ISSUE OF REPLACEMENT TRUCKS FOR DISTRIBUTOR FLEETS.

Following on from the excellent panel discussion: 'The Future for Trucks – what should distributors choose and when?' presented at the UKIFDA show and conference in Coventry last month, we look at the current options available for the fuel distribution sector in detail.

Government policy

The government's Renewable Transport Fuel Obligation (RTFO) supports its own policy on decarbonising transport by encouraging the production and use of renewable fuels that do not damage the environment.

The policy reads: "Under the RTFO, suppliers of relevant transport fuel in the UK must be able to show that a percentage of the fuel they supply comes from renewable and sustainable sources."

Obligated fuel suppliers – those who sell more than 450,000 litres of applicable fuels – do this by redeeming Renewable Transport Fuel Certificates (RTFCs) or by paying a fixed sum for each litre of fuel for which they wish to 'buyout' of their obligation. The Renewable Transport Fuel Obligation (RTFO) is already set to increase biofuel content to 14.6% by 2032, which is only 9 years away.

The Government has also pledged that all new HGVs sold in the UK will be zero-emission by 2040, with a deadline of 2035 for those weighing 26 tonnes or less. The current lack of clarity over future fuel pathways leaves fleet managers little time to plan for these rapidly approaching deadlines.

What should you be investing in?

Should you be investing in hydrogen, electric, fuel cell or biogas fuelled tanker replacements?

Tankers are a huge investment for this industry, often costing upwards of $\pounds 200k$ per tanker with long lead times for delivery. Fuel Oil News has spoken to experts in the industry to find out more.

Commercial trucks were an emissions problem waiting to be solved

Asher Bennett, the CEO and founder of Tevva Hydrogen Electric Trucks, states: "Commercial trucks were an emissions problem waiting to be solved."

Tevva is a leading British technology company and truck manufacturer, best known for its zero-emission battery electric vehicles (BEV) and hydrogen fuel cell range-extended vehicles.

Tevva is facilitating a rapid shift to electrification for medium and heavy-duty urban freight and logistics operators with a range of vehicle weights that meet a wide range of duty cycles and applications.

The Tevva trucks have a 140-miles range from a 105kWh battery, which is nearly double the size of those used in a standard electric car.

Tevva, which is backed by investors including the Indian conglomerate Bharat Forge, is also planning to build hydrogenpowered lorries that would be capable of refilling more quickly than battery lorries can charge, potentially allowing them to tackle longer distances.

Those lorries would come in 12- and 19-tonne models, with production of the latter scheduled to start in 2024.

INDUSTRY ANALYSIS

The future is hydrogen fuelled...partly

David Thackray, strategic relations officer at Tevva, was one of the keynote speakers during 'The Future for Trucks' presentation at the UKIFDA show and conference in Coventry last month. David's enthusiasm for the industry was obvious. He is passionate about the work that Tevva is doing, calling upon the government to invest more into future fuels, and was clear that much more needs to be done in the sector – and soon.

"The future is hydrogen fuelled...partly," David begins. "Hydrogen should be seen as the battery's ally not its nemesis. A blended energy solution maximises the economic benefits of zero emission trucks through the optimisation of the triple constraint of range, payload, and total operating cost."

Fuel Oil News also spoke with Harsh Pershad, head of hydrogen at Tevva, to learn more about their plans and how hydrogen can impact the industry:

"The UK Hydrogen Strategy estimates that to meet net zero aims by 2050, hydrogen will make up 20-35% of the UK's final energy demand (250-460 TWh a year). Hydrogen therefore has a critical role to play in the decarbonisation of industry, power, heat, and transport."

Is the UK really doing all it can to grown momentum and realise opportunities?

"In a recent report, the UK Hydrogen Champion found that there is a need for greater clarity on upcoming policy decisions for hydrogen users, the funding available and overall delivery of the hydrogen roadmap to 2030 and beyond.

"Tevva's area of expertise – transport – will have a critical role to play in our country's decarbonisation goals. Worldwide around a fifth of CO2 emissions comes from trucks, and both McKinsey and the Hydrogen Council believe the most competitive use of hydrogen lies in decarbonising trucks. Trucks using batteries or hydrogen fuel cells instead of diesel engines will indeed need to make up the vast majority of new sales by 2040 under plans to reduce CO2 emissions from medium- and heavy-duty vehicles. Yet only around 700 trucks that run on batteries or fuel cells were sold in Europe last year – about 0.2% of the total.

"The good news is that the economics of owning and operating electric and hydrogen trucks – total cost of ownership or TCO – are improving rapidly. And with diesel truck prices set to increase with Euro 7, electrification of our sector could happen sooner than previously thought.

"Yet there are still serious challenges



around the lack of hydrogen refuelling stations and the fact that most fleet operators have no experience of hydrogen and many hydrogen suppliers have no experience of truck fleets.

An early adopter and developer of hydrogen technology

Harsh continued: "Tevva is playing a key role in demonstrating the potential for hydrogen electric trucks. We showcased our concept prototype 7.5t and 19t hydrogen electric trucks at the IAA in Hanover last year and have been encouraged by the high level of interest in these dual energy vehicles.

"In January we took the 7.5t prototype on a 'border run' to Berwick-on-Tweed, England's northernmost town. On the way up we stopped at an Element 2 refuelling station in Teesside, and the return journey saw us cover almost 350 miles without needing to stop at all. This was made possible by the truck's hydrogen fuel cell which tops up the range-extended vehicle's lithium battery when needed.

"Still, there is an urgent need for a more comprehensive hydrogen refuelling network in the UK, and the speed and scalability of hydrogen refuelling systems will be crucial to adoption while keeping costs under control. Element 2 is doing great work in this space. They are in the process of putting a skeleton network in place with 100 miles between each refuelling station, giving confidence to any haulage company that is considering hydrogen electric trucks.

"Today the UK has pockets of Megawatt (MW)-scale hydrogen activities that are evolving alongside ambitious proposals for Gigawatt (GW)-scale low carbon hydrogen clusters by 2030. Learning from initiatives in Europe, Asia and North America, as well as the UK's own experiences, coordination is vital to minimise costs and maximise the benefits of hydrogen infrastructure. The opportunity is now for UK central, regional, and local government bodies and industry to plan and invest jointly to grow hydrogen transport systems holistically.

"The UK does have a supportive and growing hydrogen ecosystem with many public bodies, new and established companies, universities, and others building their hydrogen capabilities and strategies. However, the experience of individual organisations and maturity of cross-industry collaboration in dealing with hydrogen systems is typically orders of magnitude lower than for traditional fossil fuel systems. Therefore, in the short-term early adopters need more support to overcome the limited infrastructure and complexity of supply chains, higher unit costs, and long or uncertain lead times for hydrogen products and services.

"As low-carbon hydrogen becomes cheaper and more widely available, hydrogen refuelling has the potential to become as simple as diesel refuelling is today. We are committed to making hydrogen convenient, affordable, and sustainable for truck fleet operators. Achieving the UK's net zero goals depends on it."

One size will NOT fit all

Similar thoughts on hydrogen were shared by Amanda Lyne, managing director at ULEMCo Ltd. Claudia sat down with Amanda, at the UKIFDA show and conference, to discuss her recommendations for the future for trucks. ULEMCo Ltd are global pioneers of technology that enables commercial vehicles to convert the fuel they run on to include hydrogen.

They collaborate with operators who have fleets of HGVs and LGVs to deploy hydrogenpowered vehicles, using zero emission hydrogen fuel as part of their strategies to reduce transport-related carbon emissions.

Amanda was a keynote speaker at the UKIFDA show and conference. She joined the panel to discuss 'The Future for Trucks' and stated that 99.4% of heavy-duty vehicles and machines are still powered by diesel engines. Recognising that there is an urgent need for change, Amanda was also keen to highlight that a "one size fits all" approach would not work.

The UK needs hydrogen to achieve its net zero goals

"Hydrogen has structural advantages versus battery alternatives in heavy duty and high utilisation use cases," Amanda explained. "The benefits of using hydrogen over battery includes faster refuelling, better range, higher payload, and it's environmentally cleaner."

"Hydrogen offers lots of positives and real opportunity for the wider energy system," continued Amanda. "So many businesses and companies are wishing to decarbonise. There is huge demand for a reduction in CO2 emissions; the social responsibility is there. ULEMCo Ltd is already working with a variety of companies who are wishing to decarbonise at scale such as Siemens, Balfour Beatty, JCB and various councils across the country."

"Hydrogen will need producing near to where renewable energy is created so next to wind or solar farms. It will then need to be distributed in a close radius to production so regional locations will be a necessity. Local hydrogen hub facilities will be used for refuelling, repairing and maintenance. For trucks to fill up quickly with hydrogen, high pressure storage will be needed at each facility. It is clear that the fuelling process will need to be improved. The task ahead is huge, it's vast, but it is possible.

"There is a massive need for innovation in the distribution side for hydrogen. We need those people in the industry, with their experience and knowledge, to help innovate for the future. Hydrogen is here, ready, right now, but there is a long way to go. Hydrogen is going to happen in the next 5-10 years but there is absolute need for innovation in the storage and distribution side right now to path the way. I believe hydrogen will be used in volume by 2035."

Amanda is clearly passionate about the environmental impact ULEMCo Ltd is having and excited for the future, but she made it clear that more investment and innovation is urgently needed.

The future role of biomethane

Peter Eaton, sales and business development director at CNG Fuels, was also a keynote speaker at the UKIFDA show and conference. CNG Fuels are Europe's largest supplier of 100% biomethane to transport.

CNG Fuels develops, owns, and operates CNG refuelling infrastructure and sources 100% renewable biomethane for its stations. They are rolling out a UK wide network of reliable and convenient refuelling facilities to supply customers' heavy fleets. The Bio-CNG is biomethane 100% sourced from waste products including food, animal, and wastewater and is approved for transports Renewable Transport Fuel Obligation (RTFO).

Peter was keen to highlight that



biomethane as a transport fuel can play a critical role in achieving net zero in an economical and sustainable way:

- 100% renewable and sustainable fuel easily scalable to meet growing demand.
- An attractive cost profile for vehicles and fuel.
- Circular economy a positive impact on the local economy and agriculture.
- Minimises geopolitical risks and security of supply issues.

CNG Fuels already has a wide customer base and is rapidly growing. Waitrose currently has over 300 CNG trucks on the road, with plans for more. CNG is so confident in their product that they offer a demo truck for businesses to borrow for 3-4 weeks to see how easily the change can be made.

Roadgas

Claudia also caught up with Becky Rix, marketing director at Roadgas, a company that supplies compressed and liquified gas refuelling infrastructure and equipment for dispensing biomethane in the industrial and transport sectors.

Becky explained more about the business: "The company's focus for growth concentrates on the use of green gases – biomethane, biogas and ultimately hydrogen to drive net zero emissions and decarbonisation plans for UK fleets in light of the UK Government's net zero 2050 targets.

"Roadgas has a progressive leadership team. The company has a strong strategic vision for growth in the next 5-7 years and is excited to be at the forefront of the UK's green recovery.

The UK transport sector is focussed on reaching net zero 2050 and is fundamentally technology agnostic

"The car and light vehicle sector are being electrified but this won't work for heavy transport," Becky continues. "Biomethane HGVs are available from several manufacturers, have been widely adopted by a number of blue-chip organisations and offer a solution for the here and now. "In contrast to fossil fuel derived methane, which is simply pumped from the ground, biomethane is produced from organic matter. It can occur naturally or as part of an industrial process to intentionally create biomethane as a fuel. This is the most planet friendly way to create a renewable fuel. Typically, a biomethane powered truck compared to a conventional diesel engine will directly reduce fuel cost by around 30-35% over time. Biomethane also reduces emissions at tail pipe by around 84% and particulates by over 98%.

"At Roadgas we offer two types of biomethane – compressed natural gas (CNG) and liquified natural gas (LNG). We recommend that fleets with long range and trunking operations with 6 x 2 chassis use LNG. Bio-LNG has a high energy density and can travel up to 1000km before refilling, making it suitable for long haul transport.

"Bio-CNG has a shorter range and is traditionally used for local transport, such as distribution in city environments. This is because it is easier to handle and more stable, however requires refuelling more often due to the gas taking up more space in the vehicle compared to LNG. We recommend using trucks with a 4 x 2 chassis for this. Deploying biomethane into fleets helps to meet net zero 2050 targets. With over 2000 vehicles on UK roads and a growing infrastructure, biomethane leads the way to decarbonisation."

The future for trucks

It is clear that there won't be one single solution for future trucks and the likely outcome of a choice of fuels or a blended energy solution will enable fuel distributors to select what works for them, in their region and for their customers.

This is a topic that Fuel Oil News will continue to discuss so, if you have questions or would like to contribute your thoughts about the future for trucks, then please do get in touch: claudia@andpublishing.co.uk



0 Ims

Tankerbase Sapphire

The fully integrated fuel management software solution for today's oil distributor

Tankerbase Sapphire is a leading fuel order management and delivery fulfilment system incorporating the latest back office, order entry, fuel web shop (eSHOP), load planning and on-vehicle computer systems providing key information at the relevant time to your customers, office staff and delivery drivers.

A truly scalable, modular application deployed on-premises or cloud hosted. In single user environments to multi-user, multi-company, multi-depot organisations, Tankerbase Sapphire is not too big for an owner/driver and not too small for a nationwide logistics operation.



Excellence through innovation

Tel: +44 (0)1206 564600 | Web: www.ims-integer.com | Email: sales@ims-integer.com



A DAY IN THE LIFE... Howard Marriott

WELCOME TO OUR FEATURE WHERE PEOPLE FROM MANY DIFFERENT ROLES IN THIS INDUSTRY WILL TAKE YOU THROUGH A TYPICAL DAY IN THEIR WORKING LIFE. THIS MONTH, FUEL OIL NEWS SPEAKS WITH **HOWARD MARRIOTT**, GROUP TRANSPORT MANAGER AT BARTON PETROLEUM LTD, TO DISCOVER HOW HOWARD SPENDS A TYPICAL DAY.



MY ALARM GOES OFF AT...

6am, usually, but I do try and get to the gym three times a week before work so it's 4.30am on those days...much to the annoyance of my family as I'm not the quietest in the mornings! I'm usually awake at the same time at weekends though unfortunately!

THE FIRST THING I DO IS... Make myself a coffee and let my cockapoo, Woody, out into the garden.

I PREPARE FOR THE DAY AHEAD BY... I always check my emails before leaving the house. I have a 45-minute commute to the office so I can have a think about any potential replies and try to prioritise my next steps.

I CAN'T LEAVE THE HOUSE WITHOUT... The usual – phone, keys, wallet, laptop. Much more importantly, I must make a coffee for my wife, Kate, and a peppermint tea for my daughter, Ellie, before I leave!

MY TYPICAL DAY – On a typical day I will leave the house around 6.45am – 7am, getting to the office anytime between 7.30am – 8am. The first task of the day is another coffee and then I will tackle any urgent issues that may have arisen since the previous day.

The rest of the day will depend on what I'm working on at that time. It could be anything from vehicle procurement, driver training, depot/ accreditation audits, insurance claims/renewals....anything transport related really! My role also involves travelling between our depots, visiting suppliers and meetings with any relevant partners. I usually leave the office by 5pm and arrive home just before 6pm.

MY MOST MEMORABLE WORK MOMENT... I would probably say either Barton Petroleum being awarded founder member status of the prestigious DVSA Earned Recognition Scheme, which proves that we operate at the very highest level of driver and vehicle standards, or our 3 awards at the 2019 UKIFDA Awards! We won Depot of the Year, Runner up (in the same award) and Driver of the Year. Our team worked so hard to achieve these and we certainly celebrated that night!



THE WORST PART OF MY JOB... Seeing some of our vehicle's invoices. It really is frightening how much these tankers now cost to maintain and repair.

THE BEST PART OF MY JOB... I'm lucky that I have a very varied role at Barton Petroleum, but the best part of this job is certainly my colleagues! The vast majority of staff here have been here for years, in many cases decades, and I think this demonstrates the benefits of working for a friendly, family-run company that really cares about its staff.



I RELAX AFTER WORK BY...

On a cold, dark, winter evening it consists of nothing more than a nice meal and whatever series my wife and I are watching on Netflix! My wife, Kate, works full-time as a Learning Disability Nurse so a couple of hours relaxing in the evenings is very much needed.

Weekends tend to consist of a nice dog walk (combined with a quick pit stop at the local) and I also try to get a round of golf in on a Sunday morning if I can. This gives a perfect opportunity to have a catch up with my son who is also a member at

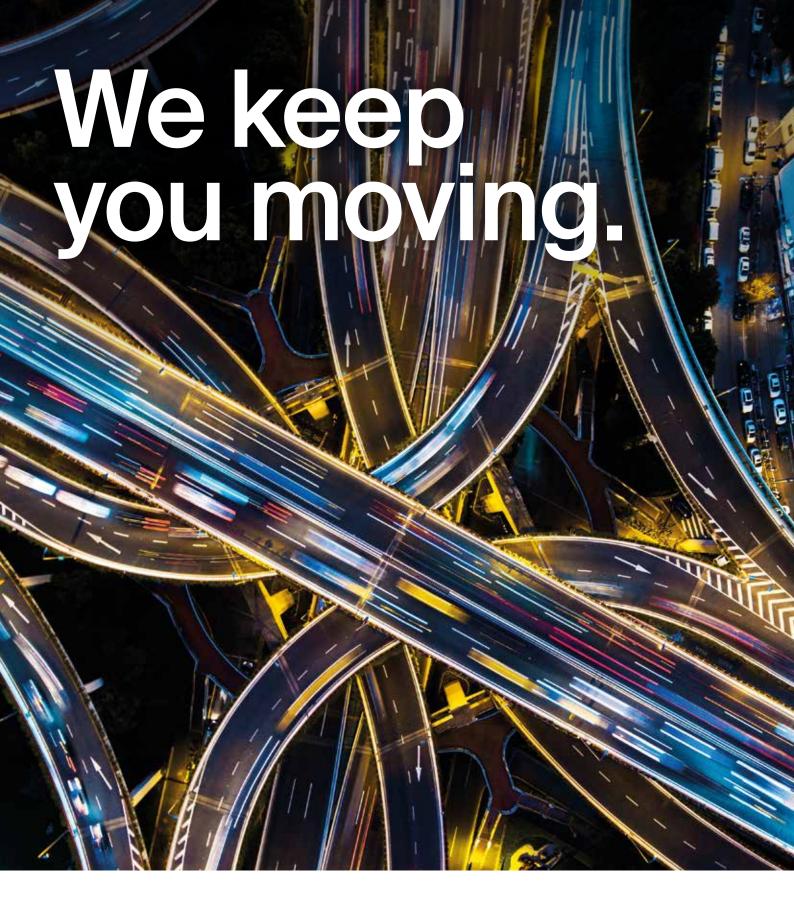
the same club. I've also just become a granddad to baby Oscar! He's amazing and so I'm now busy being a granddad!

MY FAVOURITE MEAL IS... For someone who never really got around to eating breakfast regularly, I try to make sure I get in a nice, filling (mostly healthy) breakfast. It certainly does make me more focused and productive.

ON MY BEDSIDE TABLE IS... Phone, charger, wireless buds and, more often than not, a WW2 or true crime book.

THE LAST THING I DO EACH DAY IS... Let Woody out for his last 'call of nature', lock the doors and head off to bed. Fortunately, I've always managed to get off to sleep almost as soon as my head hits the pillow. I used to spend time scrolling through social media when I got into bed, but I've really tried to stop this lately and I think I feel the benefit. Also, I no longer consume any coffee after around 5pm!

I'M NORMALLY IN BED BY... 10pm on a school night is pretty much standard. Although it's later on Fridays and Saturdays, especially if we have been out.





Keep your vehicles running smoothly with the partnership and power of Harvest Energy and Prax Lindsey Oil Refinery. As one of the most dynamic and fastest-growing independent fuel suppliers in the UK, we know what it takes to keep your business moving forward. With our flexible and competitive pricing and nationwide supply, you will never have to worry about running out of fuel. Together, we will take your business to the next level.

harvestenergy.com +44 (0)1932 843 354



DIVERSIFICATION CORNER



LCM Environmental:

'GREEN IS THE NEW BLACK' – HVO, EV CHARGERS AND CARBON OFFSETTING TO MARK EARTH DAY.

LCM Environmental Services Ltd is a fuel, energy and infrastructure specialist that delivers nationwide services to a range of industries including terminals, fuel distributors, facilities management companies and the public sector.

After recently winning the Transformation Award at the prestigious Red Rose Awards LCM Environmental is on track towards further growth and, with the company's 10-year anniversary approaching in the coming months, preparations are underway for an exciting commemoration of LCM's journey so far and a celebration of the bright future ahead.

In celebration of Earth Day on April 22nd, LCM Environmental announced plans for a range of new initiatives that will deliver a greener future for employees of the forward-thinking business.

EV charging

The LCM team has recently installed 5 brand new fast EV chargers at the company's HQ in Padiham, East Lancashire. These were installed to complement the new employee Electric Vehicle Salary Sacrifice Scheme (provided by sister company Greenarc Vehicles) which allows LCM employees to 'sacrifice' part of their gross salary in exchange for a brand new, fully electric vehicle as well as take advantage of significant tax savings.

The installation of the EV chargers marks the launch of LCM's EV charging service offering, taking the company one step closer towards a 'green' future.

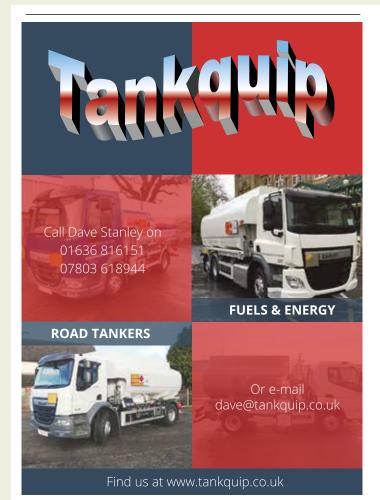
Making the switch

LCM also recently launched its HVO Switchover campaign, which helps clients switch from diesel fuel to HVO, thus reducing their CO2e by up to 90%. The campaign has gained significant momentum and being taken up by many current account holders, as well as bringing significant new business to the company. The company's new range of green services centres around decarbonisation, preservation of existing infrastructure and decommissioning of outdated fuel storage tanks.

In a serious reflection of its journey to net zero, LCM Environmental has implemented an EV company car policy, and is in the process of

replacing all existing diesel company vehicles with electric alternatives. Additionally, LCM is currently undertaking a carbon footprint calculation to help understand its own environmental impact and produce a carbon reduction plan to help take the business closer to carbon neutrality.

Paul Rava, managing director of LCM Environmental, commented: "It is an exciting time to be working in the fuel industry. Over the last year we have expanded our offerings to include EV and green fuel alternatives for our customers, and in doing so we are also transforming our own fleet to reduce our carbon footprint. The EV chargers we installed at our offices have been a great success and we have seen many of our team moving to EV by choice after seeing the benefits."



evolum

Expanding horizons

Driving change to meet the energy transition

At Exolum we see the energy transition as an opportunity to expand our horizons. A chance to diversify our business and meet the challenges of climate change and our customers' businesses. We have adopted Sustainable Development Goals (SDGs) to touch every aspect of our business and made a commitment to minimising our impact on the environment by striving to use energy resources and raw materials efficiently.

Europe's leading bulk liquid logistics provider





WHY CARBON CAPTURE, UTILISATION AND STORAGE MUST BECOME A 'THING'.

Over the last 2 months we have been on a renewables journey, firstly looking at solar and then wind power. We established that both forms of energy were viable from a commercial and environmental perspective, but also that the industrial processes involved in production were carbon intensive. This means that if we are to build these facilities at speed, then CO2 emissions will continue to rise – bad news considering the increasingly tangible effects of climate change. The requirement then, for effective Carbon Capture, Utilisation and Storage (CCUS) is now pressing to a point where, arguably, it is the most important part of the environmental equation.

"WHATEVER THEIR MOTIVATION, THERE IS INTENT."

Unlike the development of renewable energy, the capture and storage of CO2 can never be a profitable enterprise, because the process simply involves the removal of CO2 from the atmosphere (at great cost), followed by CO2 storage ad infinitum. This means that CCUS can only ever work as a mandated obligation or via taxation. An obligation would mean that governments force CO2 emitters to build carbon sequestration facilities, as part of their 'license to operate'. This is unlikely to work, as emitters (industrial complexes, factories, power-stations, refineries) will simply 'upsticks' to countries where there are no CCUS requirements. A more realistic approach would be to fund CCUS via carbon taxation, whereby producers and sellers of products generating CO2 would be taxed, before (almost certainly) passing on that cost to end-consumers.

Introducing new tax revenue streams is nothing new, and considerably more straightforward than the actual building and operation of CCUS facilities. In fact, it is probably appropriate at this point to ask whether carbon capture is really a feasible and real 'thing'. As a subject, it is much talked about, but even the most developed projects are far from operational, and cynics will point out that effective carbon capture has long been promised, but never delivered. That being said, just because things have not yet worked, does not mean they never will, and it is something of a paradox that the technology involved in CCUS is not only well established, but regularly used in the oil industry!

'Enhanced oil recovery' involves the pumping of CO2 into depleted oil reservoirs to increase the crude yield of mature oil fields. This has led some 'innovative' oil companies to start talking about the prospect of 'net-zero' oil, whereby the amount of CO2 produced in production is matched by the same amount pumped into a depleted reservoir. Understandably, this is difficult to swallow for many, but surely it is a good thing that taking CO2 and pumping it into underground reservoirs isn't actually a new development? And, by the way, there is no shortage of reservoirs to pump the CO2 into – over 1m oil wells in the USA alone!

This knowledge and confidence in the technology available has stimulated significant development, with new CCUS projects springing up across the world. In the UK, the 6 million tonne Clean Gas Project on Teesside has BP, ENI, Equinor, Occidental, Shell and Total amongst its investors and the project aims to gather industrial CO2, compress it and then either sell it (to those industries that use CO2) or store it in reservoirs under the North Sea. The Humber Industrial Cluster Plan (HICP) involves the likes of P66. British Steel. Drax and Centrica and aims to do pretty much the same thing, this time using the depleted Viking Gas Field off the Yorkshire Coast. Other similar sized projects are also now under construction across Europe (DMX in Dunkirk), North America (Quest in Edmonton) and Australia (Gorgon in Western Australia). Such activity has to be encouraging because it is inconceivable that the multinationals involved would invest hundreds of millions of pounds in something they don't believe will work. Whatever their motivations (and of course they vary), there is intent, and this means that CCUS will become a 'thing'.

A more problematic issue is that most facilities will not be removing and storing

CO2 until late into this decade, which speaks directly to the slow work of decarbonisation versus the potentially quicker work of climate change. The International Energy Agency has also predicted that over 2,000 CCUS facilities are required globally by 2040 to meet COP21 climate targets, but at present there are still only 19 industrial sized plants in development across the world. Also, as an operational model, CCUS is arguably unsustainable in the longerterm. Each year the world generates CO2 which has to be removed and stored, but once a CO2 reservoir is full, then another has to be found in exactly the same way as oil exploration constantly has to find new oil wells, to maintain the status quo.

"A KEY COMPONENT IN GREENING THE GLOBAL ECONOMY."

We shouldn't lose sight of the fact that only the reduction of CO2 emissions will provide a long-term solution to the problems of climate change. There is no single 'silver bullet' in the decarbonisation conundrum, but certainly CCUS can act as a brake in the cycle and will inevitably become a key component in greening the global economy. This is because the modern world requires steel, concrete and other heavy industries and, as long as this is the case, copious amounts of CO2 will be generated. Emissionless energy, carbon-free concrete, green steel and renewable plastics are all possible, but they are all further down the track than CCUS and so if you want a low-carbon economy, heavy investment in carbon capture is going to be required.

> For more pricing information, see page 34

Portland www.stabilityfromvolatility.co.uk



TRANSITION TALK

Hydrogen (H2.0): a new dawn?

WHILE THE NEXT-GEN HYDROGEN (H2) ECONOMY IS STILL IN ITS INFANCY, IT IS ATTRACTING ABUNDANT INTEREST FROM STRATEGIC AND FINANCIAL INVESTORS ALIKE. **STEFAN WALTER**, PRINCIPAL AT DAI MAGISTER, AN INVESTMENT BANK ADVISING INTERNATIONAL TECHNOLOGY AND CLIMATE COMPANIES, OUTLINES THE COMPANIES AND INNOVATIONS HE EXPECTS TO ACCELERATE THE DEVELOPMENT OF HYDROGEN AS A VIABLE FUEL SOURCE. HE ALSO DISCUSSES THE IMPORTANCE OF HYDROGEN DERIVATIVES AND WASTE-TO-HYDROGEN TECHNOLOGIES FOR IMPROVING END-MARKET ECONOMICS.

The current H2 investment pipeline exceeds \$240bn through 2030, an investment increase of 50% since November 2021.

Depending on who is asked (and where they sit in the value chain), different stakeholders naturally highlight "their" technology (e.g. polymer electrolyte membrane (PEM) electrolysis) as the obvious winner in an already decided race towards the hydrogen economy, citing relevant technical or commercial metrics which make their approach appear favourable.

However, technology winners are yet to emerge, and various end-market applications necessitate a diversity of options, in order to encourage and then facilitate the transition.

Today, (grey) hydrogen is a captive industrial product with a still significant carbon footprint. The high costs of producing clean hydrogen have deferred broad-based commercial interest, even if the price of green hydrogen (e.g. using PEM electrolysis) is expected to fall to \$2 per kg by 2030, driven by scale and improved technology.

But, even if its use is limited to industrial sectors and heavy-duty/ long-distance transport rather than consumer mobility, its market potential is enormous, with H2 following in the footsteps of adoption trends into wind and solar energy in previous decades. For example, a single steel plant using hydrogen instead of fossil fuels to produce iron could utilise c.300,000 tons of hydrogen p.a. (\$600m @ \$2 per kg), absorbing the output of 5 GW of electrolysers.

Does history repeat itself?

In the early 2000s, hydrogen stocks peaked following hype around the sector, and the same has been observed since the start of 2021; however, political motivations and the readiness of the sector are very different this time around.

Hydrogen stocks have now become an established investment class, reflected by blue-chip equity funds and long-term asset managers within their shareholder registers.

In late 2019 share prices jumped similarly to the hype in the early 2000s, but market conditions are much better this time, specifically around H2 deployment. Normalising price levels are significantly above the post-2000-peak-period, as more established H2-players are finding solid valuation support levels, underpinned by the reality of imminent deployment at scale. As long as investors believe in a pathway towards profitability at scale, share prices should continue to find sustainable tailwinds as well.

As the main driver of hydrogen cost reduction, the feasibility and adoption of green hydrogen relies on lower prices for renewable energy such as wind and solar. Since 2010, the cost of solar power declined by a factor of 5x, allowing technological efficiency gains e.g., in electrolysis, to drive the cost of green hydrogen closer towards cost parity compared with carbon-based energy sources. It is, therefore, greater availability of cheaper renewable power that differentiates the new hydrogen era from its earlier development phase in the early 2000s.

In the medium term, the case for hydrogen is expected to become viable beyond primary applications in agriculture, refining and chemical industries, and find adoption in steel, (heavy duty) transportation, marine and energy storage applications.

Scale has been another major driver for growth, as the average size of electrolysers, since 2015, more than doubled from c.40MW to above c.100MW. While scalability still requires subsidies to achieve H2-cost-competitiveness, governments around the world have embraced hydrogen, with more than 30 countries now publishing "hydrogen roadmaps" to support their net zero goals.

In Germany, hydrogen is the fifth most important element of the country's annual stimulus package (just after investments into digitalisation, security). Similar to its push towards wind and solar energy in the 1990s, the German government has been a particularly vocal proponent of dedicated hydrogen legislation, calling for EU gas definitions to not include clean hydrogen, in order to regulate hydrogen separately and independent from previous policies regarding natural gas and to counter the Inflation Reduction Act's regulatory incentives drawing H2 investment to the US.

German industry and policy makers, with a track record of spearheading hydrogen innovation within the EU, are expected to play a critical role in the development of a robust green hydrogen market, by sending clear demand signals for green hydrogen projects in the short term, supported by H2-friendly legislation.

Technology-agnostic innovation maximises progress

It is a prevailing misconception that different and parallel technological approaches towards the same goal(s) are inefficient, both from a capital allocation and resource perspective.

It is, in fact, precisely this that is proving to be fundamental to hydrogen's global success, as the numerous challenges are being met with diverse technological advances, not in lab experiments, but through different simultaneous market approaches, accelerating the broader adoption across end-markets.

As a reminder, the production of green hydrogen via electrolysis is possible through competing technologies, including proton exchange membrane ("PEM") systems (**ITM Power, Nel, Plug Power, Electric Hydrogen**), alkaline ("ALK") (**McPhy**), anion exchange membrane ("AEM") (**Enapter**), membrane-free electrolysis ("MFE") (**CPH2**) and solid oxide ("SOEC") technology (**Sunfire, Bloom Energy**).

None of these electrolyser technologies have yet emerged as clear winner, as all offer differentiating characteristics including efficiency, replacement cycles, size and stackability, as well as and opex levels.

Recent pilot projects focused on alkaline (NEL/Nikola deal) and PEM



(Linde and Air Liquide), with PEM technology expected to become cost competitive with ALK by 2025, closing the current 25% cost gap in favour of ALK. ALK is expected to play a key role for larger projects, due to lower normalised opex levels, with PEM more commonly used for smaller footprints, due to its responsiveness to variable rates of renewable energy.

Critical innovation is also taking place on the electrolyser component level, where suppliers of membrane technology (separating anode and cathode) (**CMS, M-Power, Ionomr**) are developing cheaper and more efficient technology to support the global roll-out of electrolyser capacity.

No bottleneck from the metals market is currently expected, despite PEM representing a major new demand driver for the narrowly supplied metal Iridium. While platinum and iridium price volatility between January 2021 and January 2023 contributed to the inflation seen hitting catalyst-coated membranes, researchers at the Netherlands Organization for Applied Scientific Research have developed a method which will require 200 times less iridium in the production of PEM electrolysers, while also improving efficiency.

So how do different production technologies and H2 derivatives address the major challenges facing the growing H2 economy?

The production of green H2 through electrolysis is still expensive (~7x the cost of fossil fuel-powered grey H2, with electricity constituting 60-75%) and offers poor conversion ratios (~1.3:1). While mitigated through the falling costs of renewable energy, conversion into hydrogen derivatives (e.g. e-methanol (e.g. Carbon Recycling International), clean ammonia), as well as innovative waste-to-hydrogen technologies will improve end-market economics and encourage broader adoption and transition away from fossil fuels.

Clean ammonia will likely serve as a transition fuel. It can be burned directly in an internal combustion engine (ICE) with no carbon emission, converted to electricity directly in an alkaline fuel cell, or cracked to provide hydrogen for non-alkaline fuel cells. Market participants from global **Yara Clean Ammonia** to local producers who commonly colocate with contracted offtakers, e.g. waste-to-hydrogen players such as **Concord Blue** and **Green Hydrogen Technology** are providing early access to hydrogen (derivatives) which can compete with fossil-based alternatives.

Another major concern around H2 distribution is the 1.5 - 5xhigher cost to transport hydrogen vs natural gas, as hydrogen requires liquification in order to be shipped, increasing the cost of transport due to further energy losses. At current cost structures it is not feasible to ship H2 from cheaper production locations (e.g. Australia, Namibia) to expensive demand centres (e.g. in Japan or Northern Europe).

The low energy density of hydrogen, in both compressed gas and liquid forms, makes the distribution and storage of hydrogen a difficult

(and expensive) problem for most applications. This limitation is felt strongly in the area of onboard storage, but it is also problematic in the final delivery and distribution of hydrogen. H2's low energy density is also one of the greatest barriers to the implementation of hydrogen-fuelled fuel cell vehicles.

Retrofitting existing natural gas pipelines would involve changing relevant regulations but is widely expected to be part of the mediumterm transportation solution. Utilisation of industrial hubs, where (grey) hydrogen is already based on fossil fuels, including the repurposing of H2 infrastructure, offers some support and there are exciting advancements in H2 storage technologies to facilitate broader end-market adoption.

H2 conversion into derivatives (e.g. ammonia, e-methanol), or more novel technologies such as powder carriers (e.g. KBH4) or Liquid Organic Hydrogen Carrier (LOHC) forms will serve as facilitators to solve the global distribution challenge. LOHC technology, as pioneered by market leaders like **Hydrogenious**, allows for organic compounds to transport (absorb & release) hydrogen at ambient conditions and in liquid form. H2 transportation in powder form through a store & release agent, as developed by Israel-based **Electriq**, allows for higher utilisation and is compatible with a range of fuel cell technologies, to turn the hydrogen back into electricity.

The debate around H2 applications has also fuelled safety concerns regarding hydrogen as a flammable gas, or its toxicity risk for ammonia derivatives. While hydrogen has been successfully and safely used in vast quantities and for decades, new end-markets which are adopting H2 as feedstock or fuel source, storage and transportation protocols will require operational adaptions to ensure safe handling throughout the supply chain.

Bright hope for tomorrow

As highlighted again and again, hydrogen properties in various forms offer immense potential to enable energy transition, and there are viable technological solutions addressing its current and future challenges. While still expensive and inefficient compared to direct electrification, it is desperately needed, particularly in sectors which are difficult (or impossible) to electrify, e.g. commercial aviation, shipping, and high-heat industrial processes.

The task to develop the optimal technology solutions and most supportive policies which kick-start and scale the H2 economy carries on, and there will be many different hydrogen value chains, competing not just on cost, but on efficiency, risk acceptance and adaptability to enduse.

But it should be clear that only the continuous innovation in diverse hydrogen technologies will create a virtuous cycle which maximises the full range of hydrogen applications available in the future.

The \$240 billion H2 investment pipeline will only be the beginning.



TANK STORAGE

CONFERENCE & EXHIBITION 2023

The UK's leading event for the bulk liquid storage sector

21.09.2023

21 September 2023

Coventry Building Society Arena, Coventry, UK

Discover the event: www.tankstorage.org.uk/conference-exhibition

Rod Prowse

IT IS WITH EXTREME SADNESS THAT WE REPORT THE UNEXPECTED PASSING, ON 26TH APRIL 2023 AT 74, OF ROD PROWSE, INDUSTRY SPECIALIST AND VALUED CONSULTANT AND REGULAR CONTRIBUTOR TO FUEL OIL NEWS.



Known to a great many in the industry, Rod worked for more than 30 years across the full spectrum of the downstream oil sector, in both the UK and USA.

After success in many leadership positions in both retail and wholesale fuels businesses, Rod retired early to launch his own consultancy delivering assignments and projects in a number of different countries including Australia, Argentina, Benelux, Bosnia, Jordan, Malaysia, Portugal, Russia, South Africa and USA.

Rod also served as non-executive director on a number of companies including Delek Petroleum Europe and Prax Petroleum.

Immensely engaging and personable, Rod was a popular and highly respected industry figure, recognised for his extensive knowledge and deep understanding of the sector as well as his hard work and delight in continually expanding his knowledge through research.

Commercially astute and with excellent analytical and communication skills, Rod had the ability to unpack any industry related topic and his monthly 'Insight' feature was a valued pillar of Fuel Oil News for the many years we had the immense benefit of his contribution.

Early life

Rod was the second of two sons, born in Montreal, Canada. He went to school, and spent most of his life, in Co Cork, Ireland. He read economics at Trinity College, Dublin.

After graduating, Rod worked for a while with the GLC (Greater London Council) and Lloyds Bank, finally finding his niche in the oil industry with Conoco. He worked in both the upstream and downstream areas of the business. In later years, he managed their Aviation and Marine divisions winning many awards and plaudits for turning both divisions into hugely profitable businesses.

A family man

Rod married his wife, Jeanne, in 1986 and they had their son Matthew in 1991. Rod loved family life and friends, read widely, and loved a good debate about anything, but particularly politics. A good party and a glass of wine were also to be much enjoyed. Arsenal Football Club was a source of joy and pain; and much discussion with Matthew about how they would manage the team. Rod loved to walk, played tennis as often as possible and also played rugby with London Irish back in the day.

With parents-in-law who lived in Barbados, many happy holidays were spent there with family and friends. As a family they travelled widely throughout Europe and as far afield as New Zealand. Rod was a Governor at the local primary school, a mentor with the Princes Trust and a Trustee with Citizens Advice.

Greatly missed

A knowledgeable gentleman of the industry who was such a friend to Fuel Oil News over many years, Rod will be greatly missed and remembered by all those who knew him but especially by his family and friends.

Our thoughts are with them all at this time.

When the sad news of Rod's passing reached us, we felt it fitting to suspend 'Industry Insight' for this issue to pay tribute. Rod's long-standing contribution to Fuel Oil News went far beyond the valued insights he shared each month in this important pillar of the magazine.

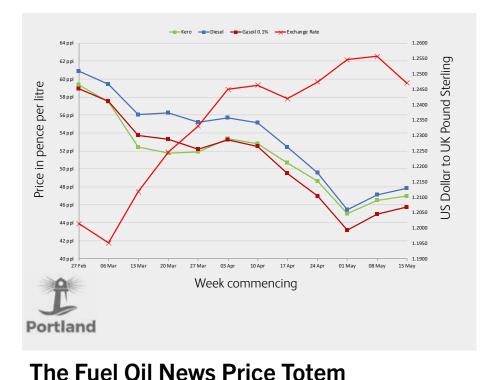
An integral part of the team, Rod was always swift with insight and irreplaceable knowledge – a quality many will have benefitted from over the years.

If you have your own memories of Rod you would like to share, or wish to share a few words in tribute, please email: margaret@fueloilnews.co.uk or call 07786 267527.

Wholesale Price Movements: 19th April 2023 – 18th May 2023

	Kerosene	Diesel	Gasoil 0.1%	
	Keloselle	Diesei	Guson 0.1%	
Average price	47.33	48.19	45.83	
Average daily change	0.82	0.88	0.88	
Current duty	0.00	52.95	10.18	
Total	47.33	101.14	56.01	

All prices in pence per litre



Highest price Biggest up day 50.83 ppl +1.27 ppl Wed 19 Apr 23 Fri 05 May 23 Kerosene Lowest price Biggest down day 43.88 ppl -1.97 ppl Wed 03 May 23 Tue 02 May 23 Highest price Biggest up day +1.22 ppl 44.38 ppl Wed 19 Apr 23 Fri 05 May 23 Diesel Lowest price Biggest down day 38.77 ppl -1.91 ppl Wed 03 May 23 Wed 03 May 23 Highest price Biggest up day 49.75 ppl +1.43 ppl Wed 19 Apr 23 Wed 10 May 23 Gasoil 0.1% Lowest price Biggest down day 42.07 ppl -1.89 ppl Thu 20 Apr 23 Wed 03 May 23 Gasoil forward price in US\$ per tonne \$700 \$695 \$690 \$685 \$680 \$675 \$670

June 2023 – May 2024

\$665

	Trade average buying prices			Average selling prices		
	Kerosene	Gasoil	ULSD	Kerosene	Gasoil	ULSD
Scotland	43.98	55.68	103.71	50.14	59.49	107.77
North East	42.93	54.31	102.79	51.47	57.85	105.77
North West	44.50	56.91	105.18	50.43	60.24	107.85
Midlands	43.00	54.84	103.25	48.77	58.33	106.49
South East	43.10	54.80	103.23	55.01	60.89	106.04
South West	43.45	54.64	103.07	51.14	58.12	105.64
Northern Ireland	43.56	56.01	n/a	49.24	60.30	n/a
Republic of Ireland	57.32	61.44	104.65	62.66	65.07	107.96
Portland	41.31	52.36	99.94			

The price totem figures are indicative figures compiled from the Portland base rate using calculated regional variances.

Buying prices are ex-rack. Selling prices are for 1000 litres of kero, 2500 litres of gas oil and 5000 litres of ULSD (Derv in ROI). Prices in ROI are in €. Wholesale prices are supplied by Portland Analytics Ltd, dedicated providers of fuel price information from refinery to pump.

IN PROFILE

WELCOME TO JUNE'S EDITION OF OUR SPECIAL MONTHLY FEATURE WHICH GIVES YOU THE OPPORTUNITY TO 'MEET' AN INDUSTRY FIGURE AND, HOPEFULLY, TO DISCOVER ANOTHER SIDE TO THEM BEYOND THE WELL-KNOWN FACTS. THIS MONTH WE CHAT WITH **ADRIAN MASON**, SALES EXECUTIVE AT ROAD TANKERS NORTHERN AND PROUD WINNER OF THE FUEL OIL NEWS TANKER OF THE YEAR MANUFACTURER FOR 2022

"TREAT PEOPLE AS YOU WOULD LIKE TO BE TREATED."

ADRIAN MASON

Give your career history in 25 words or fewer.

Worked in a wire drawing company as a metallurgist from leaving school, award-winning pest controller, artificial stone salesman, truck sales for Renault and DAF.

Describe yourself in 3 words. Honest, dedicated and driven.

What were your childhood / early ambitions?

I actually wanted to be either a gamekeeper or a gunsmith which is why I studied metallurgy at university and why I changed to pest control in later life.

Describe your dream job (if you weren't doing this?)

Lure fishing guide in Ireland or in Scandinavia.

What's the best business advice you've ever received? Treat people as you would like to be treated.

Share your top tips for business success.

Have a goal to aim for and work with people who have the same aspirations.

What's your most recent business achievement of note?

Tanker of The Year 2022 winner – It's only taken me 10 years to win it with one of my builds!

Tell us your greatest fear.

Being an older dad, I would say not seeing my children growing up.

Which is most important – ambition or talent?

Personally, a mixture of both is much more important to make the right person.

What's the best thing about your job?

Telling a customer that their new tanker is ready to collect is easily the best part of my job.



Which is the quality that you most admire? Dedication.

What are you most likely to say? I will sort it.

What are you least likely to say? It's not my job.

Describe your perfect day.

4am alarm going off, crawl out of the lodge and straight onto my boat followed by a good day's fishing on a large lake or river. Home to my lovely young family and a steak dinner.

Do you have a favourite sports team?

Liverpool FC – YNWA.

What's the biggest challenge of our time?

The changes to legislation due to climate change; I detest the thought of electric fuel tankers!

Cheese or chocolate?

Chocolate – I do have a bit of a sweet tooth.

Share your greatest personal achievement.

Being a sponsored angler and marrying the woman of my dreams.

What's your pet hate or biggest irritant? Don't care attitude. If you were on 'Mastermind' what would your specialist subject be? Fishing.

If you were elected to government what would be the first law you'd press for? Stop homelessness; everyone should have a roof over their head.

If your 20-year-old self saw you now what would they think? You are doing ok and grey hair suits you.

What is number 1 on your bucket list? Fish for Musky in Canada.

What 3 things would you take to a desert island? Family, fire starter and a fishing

rod.

Tell us something about you that people would be very surprised by.

I shot Clay Pigeon to a very high level before I started fishing.

Who would you most like to ask these questions of? Andrew Chrystal from Chrystal Petroleum.

Fuel Oil News | June 2023 35

Products & Services Directory



OAMPS is a trading name of Pen Underwriting Limited, which is authorised and regulated by the Financial Conduct Authority (FCA number 314493). Registered Office: The Walbrook Building, 25 Walbrook, London EC4N BAW. Registered in England and Wales. Company Number: 5172311





Whole Business Insurance Package for **Fuel Oil Distributors One Policy** insured by oilshield **One Insurer One Payment One Renewal Date** 020 3907 1361 oil@shield green



Tankers & Services

Cobo Tankers and Services Ltd C26 Josephs Well Hannover Lane Leeds LS3 1AB

Main Office : 0113 3886400 Fernando Gomis : 07840 048 835 fgomis@cobotankersandservices.co.uk Terry Morgan : 07712 871 786 tmorgan@cobotankersandservices.co.uk Joby Clark: 07592 519 349 jclark@cobotankersandservices.co.uk





Storage Tanks Limited

op fabricated storage tanks cylindrical or rectangular up to

- 200,000 litre capacity Site built storage tanks up to 5,000,000 litres capacity Refurbishment and demolition of existing site storage tanks Basement generator fuel tanks

Phoenix Works, Richards Street Darlaston, West Midlands, WS10 8BZ

- Self bunded tanks cylindrical and rectangula
- Offloading and installation of shop built storage tanks Bitumen bases, pipelines, insulation & cladding, access steelwork and ancillary equipment

Tel: +44(0) 121 568 8166 Fax: +44(0) 121 568 8177 email: sales@alliedstoragetanks.co.uk

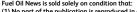


Subscriptions

Annual subscription for the UK & Republic of Ireland is priced at £130 or €150 inc. p&p. Overseas: £150 or €175 inc. p&p. UKIFDA members 25% discount Back issues: £8 per copy.

Published by

A&D Publishing, Caledonian House, Tatton Street, Knutsford, Cheshire WA16 6AG www.ashleyanddumville.co.uk



Fuel Oil News is sold solely on condition that: (1) No part of the publication is reproduced in any form or by any means electronic, mechanical, photocopying or otherwise, without a prior written agreement with the publisher. (2) The magazine will not be circulated outside the company / organisation at the address to which it is delivered, without a prior written agreement with Ashley & Dunville Publishing. The publishers gratefully acknowledge the support of those firms whose advertisements appear throughout this publication. As a reciprocal gesture we have pleasure in drawing the attention of our readers to their announcements. It is necessary however for it to be made clear that, whilst every care has been taken in compiling this publication and the statements it contains, the publishers cannot accept responsibility for any inaccuracies, or the products or services advertised. Fuel Oil News is printed on sustainable forest paper. © Ashley & Dunwille Publishing. Printed by Stephens & George Print Group. Tel: 01685 388888

