

THE Fueller

The official journal of The Worshipful Company of Fuellers

Issue 67 June 2023



Election Court Lunch

The Duke of Edinburgh joins the Master and his Consort with fellow Fuellers

**Net Zero and Future
Energy in Focus**

An Industry Insight

Geothermal Business Model

Fuellers Advantage event



Contents

- 3 Message from the Master
- 5 The Election Court Lunch
- 11 International Women's Day – Special Report
- 12 Industry insights
- 16 Fuellers Advantage Event
- 18 News
- 21 Event highlights
- 24 Fuellers Activities
- 26 Diary dates
- 27 Expert Comment

Editor's note

Lynn Postle FICME, Editor

In his message opposite, the Master notes that he is working to further develop the fellowship within the Fuellers and the City of London, an important aspect of his role. Charitable activities are off course a uniting factor, along with history. It strikes me that respecting our historic legacy whilst ensuring that the Company is representative of a modern world requires a fine balancing act. However, it is a conundrum that is being managed well by the Fuellers, who are keen to highlight the fact that history and modernity are equal players in the story of the Livery companies. We can recognise the importance of ceremony and tradition, yet still strive for innovative thinking and adapt to suit twenty first century life.

The Company is as relevant today as it has always been, and I consider one of the most reassuring characteristics to be the camaraderie and mutual friendships forged during events that are often borne out of shared beliefs and values. Fuellers value their trade and indeed the many professions associated with the energy sector, they value the collective strength of the Company and the companionship this offers, but they also value the ability to inspire and aid future generations through education and training activities and the opportunity to support worthwhile causes.

This issue of *The Fueller* includes updates on the Charitable Trust Fund and the Livery Climate Action Group – important aspects of the Company, offering quantifiable solutions to genuine issues. See pages 19, 24 and 25 for more information.

Of particular focus in this issue is the pursuit for Net Zero and the future of energy, refer to the Industry Insights articles on pages 12 and 14.

Throughout the year, Fuellers come together on many occasions. Along with formal events such as the Election Court Luncheon and the upcoming Midsummer Court and Dinner (14 June), there are plenty of other ways to get more involved, such as the charming and informal Master's Weekend, held on 19 to 21 May, which enabled attendees to enjoy each other's company in a more unceremonious manner. The Master commented that it "felt like a group of friends just coming together." A fine example of the camaraderie referred to earlier.

Coming back to the fine balancing act. We can see that whether pomp and ceremony, lively debate, relaxation and fun, or giving something back to society and the profession, there is always something on the agenda to whet the appetite. I look forward to meeting many more of you in the coming months as Fuellers come together.

I would like to thank all the contributing authors for their support in compiling this issue of The Fueller.

Next issue: Autumn 2023



Join the conversation

To opt out of receiving a printed version of *The Fueller* please email subscription@fuellers.co.uk. Comments and suggestions on this and future editions welcomed to editor@fuellers.co.uk. Past copies are available for download at www.fuellers.co.uk/the-fueller

The Fueller is the official journal of The Worshipful Company of Fuellers registered at Stationers' Hall. This publication is produced and distributed by The Worshipful Company of Fuellers, designed by **Clare Davies**. *The Fueller* is a registered trademark of The Worshipful Company of Fuellers. All rights reserved.

Message from the Master

Peter Harrison, Master Fueller considers what it is like to be the Master Fueller



Peter Harrison, Master Fueller

What is it like to be Master Fueller? It is an absolute privilege, an honour, hectic and most of all fun.

I am now about halfway through my busy year and what an interesting and unusual year it has been. Many external events have impacted on us all and the Livery world, including the Ukraine conflict, Covid recovery, succession in the Royal Family and the City of London Corporation. We all adapt, and it is a real pleasure and joy to help grow and develop the Fuellers as well as represent the Fuellers in the many varied outside activities and events around the country and in the City of London.

My monthly Master's Activity Report provides a brief overview of what I and the Wardens get up to on your behalf and I am pleased this report seems to be well received. I will continue to produce this. Some highlights of these many and varied activities include:

- Leading a January visit to Citigen, the hidden sustainable generating plant next to Smithfield and setting up the July visit to the Corporation of London Solar Farm in Dorset.
- Fueller social events including lectures, dinners and lunches. For example, hosting the New Year's Court and Dinner to thank the Consorts of the Court for their support and contribution.
- Being proud of the Fuellers' role as a voice of energy in the City, such as our leadership in the Livery Climate Action Group.
- Being an ambassador for the Fuellers in the various mixed activities and events of the City of London and the Livery world. For example, attending other Company installation events and competing at the Pancake Race in full robes, a chef's hat and flipping a pancake! The lectures are many and varied and have included unusual topics, such as renovating Big Ben, Mission Net Zero, global conflict zones, the Guildhall School of Music and Drama and cybersecurity.
- Our own Past Master, His Royal Highness Prince Edward, being appointed The Duke of Edinburgh on 10 March. I was especially pleased that he was able to attend our Election Lunch on 19 April.
- Our Junior Warden, Elena Oderstone, climbing Mount Kilimanjaro, and her fundraising for the City of London charities of Make a Wish and City Harvest.
- Getting agreement on the use of the Fuellers motto.
- Visits to our Military Affiliates, including HMS Sultan.

A key theme for my Master's year is 'charity', while at the same time I am working hard on developing the fellowship within the Fuellers and the City of London and also helping to raise the profile and contribution of the Fuellers in the energy sector.

Continued/...

I believe the time is right to re-emphasise within the Fuellers, the role that all of us have in supporting charity. I would like to praise the fantastic work that The Fuellers Charitable Trust Fund does on our behalf. I am very involved and interested in this work and part of my own fundraising will go to them. The grants they make help support many and varied charities, across the range of energy related, education and helping the needy, and they try to concentrate on the smaller charities where our help can make a real difference.

I continue to hope that more members consider making a regular contribution to The Fuellers Charitable Trust Fund or even consider a legacy gift. Other ways you can assist include mentoring and providing help and assistance to our charity organisations. The gift of time is just as important as funds. Please do all you can to help.

As to my own charitable fundraising efforts. I will be seeking your support for two unusual physical activities. One is something I hate – heights. I will be leading (or dragged by!) a group of friends, family and the Junior Warden, over the roof of the O2 building in Canary Wharf on 5 August. The second is something I love – swimming. So, I will be swimming the 22 miles of the English Channel. To quickly clarify, that is in the local health club swimming pool and I will build up the 22 miles on a regular basis over a time period. Look out for details soon on how to donate and encourage me.

I could not be in a position to do all of this without back up and support. I would like to recognise the smooth running and the development and growth of the Fuellers is driven in part by the fantastic work done by many of our members. Especially the Officers, The Court, The General Purposes Committee and its sub groups covering Membership, Sponsorship, Education, Communication, Industry as well as the Trustees of The Fuellers Charitable Trust Fund. The hard work and dedication of the various Chairs and members of these groups make a real positive contribution to the success of the Fuellers. Thank you all, your work is much appreciated.

So, what about the rest of my year? The invites continue to flood in, and I work on the basis that when my diary is free, “if in doubt, say yes”. I am looking forward to many more events and activities often coming up at short notice which makes them even more interesting. Other events to come are the Mid-Summer Dinner now at Butchers Hall on 14 June; the Thanksgiving service on 17 July followed by our Military Affiliates lunch and prize giving; the Sheep Drive over London Bridge; the Sheriff’s Ball and the

Installation Dinner when I hand over on 11 October. Shortly after this, is the Duke of Edinburgh Fuellers Future Energy Conference on 29 November. I hope you can attend as many of these events as possible.

Finally, I thank my Consort and Past Master Jan, for her invaluable support and insights. I could not do this without her.



Top: Peter Harrison, Master Fueller

Bottom: Always a hearty dinner or lunch to attend

Left: Part of the Fuellers team at the Inter-Livery Pancake Races in February, with Liveryman Suzan Woods, Liveryman and Captain of the team Paul Mott, and Lilianna Oderstone, daughter and Consort of Junior Warden Elena Oderstone



Election Court Lunch

An Exhortation to the Fuellers to lead The City in Energy Transition

19 April 2023

Vintners' Hall



Junior Warden-Elect – Ashutosh Shastri

The Election Court meeting on 19 April welcomed in our midst one new Freeman – Prof Manahel Thabet, President of the Economic Forum for Sustainable Development and three new Liverymen. Mark Cook, a specialist in retail fuel distribution; Dr Peter Evans, an energy technologist, who has been championing several initiatives in our industry group; and Carl Lomas MBE, Liveryman of Carmen and a specialist in transport fuels, who has further cemented the bonds between our two companies by joining our livery. This range of expertise and skill is to be celebrated and we hope to see our tribe grow in strength and diversity.

The results of the election of Officers for the year commencing 11 October 2023, were Dr James Cripps as Master, Elena Oderstone as Senior Warden and Ashutosh Shastri as Junior Warden. Congratulations all round.

The invasion of Ukraine has brought the subject of energy into sharp focus and particularly so in Britain – we are witness to rapid energy price driven inflation and the subject of energy is not restricted to just the participants in the energy business anymore – it’s a whole society issue. The City especially, as it seeks to transition to Net Zero by 2040 and begins to position itself as a point of reference for climate and new energy finance, needs the range of expertise we attract as a company – a point clearly made by our principal guest, Sheriff Andrew Marsden, MStJ in his address at the luncheon that followed the Election Court.



Principal guest, Sheriff Andrew Marsden, MStJ

Addressing a packed house at the Vintners’ Hall, graced by the presence of HRH The Duke of Edinburgh and a galaxy of dignitary guests, Sheriff Marsden called for “less greenwash” and more of the three Cs: context, clarity and challenge if we are to achieve a sensible transition to affordable, accessible and acceptable future energy supplies. The fuel industry, he said: “is at the epicentre of two of the biggest challenges facing the planet today – security and climate change.” He recognised the need for the planet to move towards more low carbon resources whilst warning about getting trapped in “greenwash”. The complexity of the situation therefore, he added, called for the three Cs: context, clarity and challenge. “The much-demanded fossil-free energy mix seems a long way off”, he lamented, but concluded by stating “with leadership in the City from the Fuellers – who can provide the three Cs – the unforgiving statistics of our current energy mix are surmountable.”



New Freeman Prof Manahel Thabet with Master Peter Harrison, Senior Warden James Cripps and Junior Warden Elena Oderstone



Peter Harrison (centre), Senior Warden James Cripps and Junior Warden Elena Oderstone with the newly installed Liverymen: Carl Lomas MBE, Mark Cook, and Dr Peter Evans

Dr James Cripps, our Senior Warden, then welcomed the guests: these included the Honorary Liverymen; the representatives of the Affiliates; Edward Berry, Master Vintner; Colin Drummond, Master Water Conservator; Richard Green, Master Chartered Accountant; Andrew Turner, Master Carmen (also an Honorary Liveryman); and Sheriff Andrew Marsden. He then proposed a toast to all those present as guests, whether of the Company or of individual members.

In his response, Master Fueller, Peter Harrison, thanked Sheriff Marsden for agreeing to be our speaker and for sharing his thoughts on energy, and also echoed appreciation, on behalf of the Company, for his support and contribution to the City and to the Corporation of London. It was fascinating to hear about the life and works of a Sheriff, he added while offering a gift and a cheque for this year's Lord Mayor's Appeal from the Fuellers.

On a personal note, the Master welcomed his own guests: the Prime Warden Basketmaker, Judy Tayler-Smith and her Consort, Simon; the Master World Trader, Michael Shapiro and his Consort, Doctor Jill Shapiro and the Past Master Architect, Richard Brindley and his Consort, Professor Nicola Brindley.

The day would have been the 99th birthday of our founding Master, and the Master expressed pleasure that his sons, Edmund and Richard Stephenson Clarke were able to join.

Thanking the Master Vintner, for allowing us to use the Vintners' Hall, the Master reminded attendees of the significance of their surroundings that day; the Vintners are one of the oldest and one of the 'great twelve' Livery Companies. They used to have special rights and control over the wine trade and they still retain the rights in the famous ceremony of swan upping. They were granted their Royal Charter in 1363 and have been at the current site since 1446. Like many halls, the original was burnt down in the Great Fire of London in 1666 and further buildings followed, with the current one being built in the 19th Century.

The Master, in his speech, reflecting on his time in office thus far, made mention of his monthly activity and appealed to all members to take advantage of the published diary of all the 2023 events open to all members. He reminded all present of the statement that welcomes new Fuellers: “This Company reflects life in many ways – what you get out of it depends on what you are prepared to put in”.

The Master then highlighted the special aspect of 'charity' and congratulated our Junior Warden, Elena Oderstone, who recently completed her climb of Mount Kilimanjaro and thanked all the donors who supported her in her fundraising through the Fuellers Charitable Trust Fund for Make a Wish and City Harvest charities.

Then going on to his own charity activities for the year, the Master informed about his plans to climb the O2 building in Canary Wharf on 5 August and to swim the 22 miles of the English Channel, in several sessions at his local club swimming pool to be completed by 5 August. He joked: “The challenge is that each mile is 65 lengths, so 22 miles is over 1,400 lengths. Quite a task for a 71-year- old on statins!” He noted that it was a challenge that he was prepared to take to raise funds for the Fuellers Charitable Trust, the RNLI and The British Heart Foundation.



The Vintners still retain the rights in the famous ceremony of swan upping

He then announced the installation of the Master Carmen, Andrew Turner, as an Honorary Liveryman of the Fuellers for the period of his office and expressed his pride and joy that the special reciprocity arrangement for our respective Masters meant that he was an Honorary Liveryman of the Carmen too.

The Master then invited the newly joined Freeman Prof Manahel Thabet, and newly elected Liverymen, Mark Cook, Dr Peter Evans and Carl Lomas MBE, to stand up so that the Company could welcome them all with a round of cheers and applause from those present. He then announced the results of the election held at the meeting earlier in the day where the new Officers for the year commencing 11 October 2023 will be Dr James Cripps as Master, Elena Oderstone Senior Warden and Ashutosh Shastri Junior Warden; all of whom stood to loud cheers from all present.

The Master then thanked our gallant Clerk, Alex Maclean-Bather, the Beadle for the occasion, James Hasler, and all the staff at Vintners' Hall before thanking all present for being there and supporting the Fuellers.



Immediate Past Master Carrie Marsh encourages Fuellers to look at the range of merchandise available

**We would like to thank
James Hasler, who kindly
acted as Beagle at the
Fuellers Election Lunch
on 19 April.**





Master Peter Harrison and Junior Warden Elena Oderstone with (Left) New Freeman Prof Manahel Thabet and (Right) newly elected Liverymen, Mark Cook



Master Peter Harrison and Junior Warden Elena Oderstone with (Left) Dr Peter Evans and (Right) Carl Lomas MBE



Master Carmen Andrew Turner being installed as an Honorary Liveryman



Wing Commander Jon Smith RAF CO TSW with Junior Warden-elect Ashutosh Shastri



Mrs Maureen Cloke; Bill Barr, Liveryman and Mrs Ingrid Strawson enjoy the speeches



Sina Mirshahi, Freeman with Court Assistant Professor Michael Kennedy

International Women's Day Special Report

Jan Harrison, Past Master and Consort to the current Master Fueller



As Past Master and current Consort to the Fuellers' Master, Peter Harrison, I was delighted to accept invitations to represent the Fuellers at two International Women's Day events.

Embrace Equity

On 7 March, Peter and I were invited to attend an International Women's Day Question Time event, with Q&A, at the Guildhall Club on the theme of 'Embrace Equity'. This was a joint event with several organisations including Women in the Livery.

The evening was also organised to help raise funds for charity, including the Lord Mayor's Big Curry Lunch which helps ex-servicemen get back into employment.

In the introduction the point was made, that women generally in business do not wish to be treated any differently than men but equal, i.e., achieve equity.

A highly qualified discussion panel with a mix of gender, ethnicity and impaired sight, introduced themselves and some spoke personally of the struggles they encountered to achieve recognition and how it had affected them throughout their working life. They did say that they felt equity was now making some progress in their fields of expertise.

Women Who Change the World

On the following evening, 8 March, I attended another International Women's Day event at Goodenough College where the theme was 'Women Who Change the World'. This was hosted by the World Traders Livery Company and attended by the Lady Mayoress Felicity Lyons and Sheriff's Consort, Marian Gamble. After a welcome from the Lady Mayoress, we listened to a keynote speaker, who explained how she raises awareness of issues of inequality through art. This was followed by two different panel sessions, including Q&As with a selection of incredibly driven women from around the globe. The panels included women in the medical profession, commerce and industry.

Listening to the journeys these women had taken to be able to attain their goals was captivating.

We have come a long way over the last one hundred years or so, but it would seem there is still much needed to be done for inclusion to become accepted by all.

We Fuellers should be proud of the diversity and inclusion we have in our membership.

Industry insights

Net Zero and Future of Energy in Focus: From Westminster to The City

Ashutosh Shastri, Liveryman and Junior Warden-Elect



The last few weeks have witnessed tremendous debate on the future of UK energy – its pricing, its future fuel mix and Net Zero, with the release of two important, and in our view – debate setting, reports: ‘The Independent Review of Net Zero’, by Rt Hon Chris Skidmore, MP that was commissioned in September 2022 and released in March 2023, and followed up in quick succession by another report by the Climate Change Committee titled: ‘Delivering a Reliable Decarbonised Power System’.

Both reports are rich in content and too voluminous to summarise in this short article, so, this is not an attempt to summarise the reports, nor is this article intended to ‘plug’ our Duke of Edinburgh Future Energy Conference, to be held in November. Moreover, the central point

of this article is to highlight that there is wider recognition of the challenges the energy industry faces today; the Fuellers are more relevant today than they could ever be and for us, this is an opportunity and a challenge. In the words of our principal guest at our recent Election Court, Sheriff Andrew Marsden, the energy industry is now at the “epicentre of two of the planet’s biggest challenges today”. (For more details see page 6).

Members of the Fuellers Industry Group (FIG), who have commenced work on the content and agenda for the Duke of Edinburgh Future Energy Conference, are content to note how well aligned the programme is shaping up to the issues raised by these two seminal reports, which have been published in quick succession. The exhortations to pursue a Net Zero

UK have been building for a while, in particularly since COP26 in Glasgow, and yet the impact the war in Ukraine has had on energy pricing and driving further inflation in the UK economy has not been lost.

A brief word about both reports, first, the ‘Independent Review of Net Zero’ is the most comprehensive nationwide assessment based on over 1,800 written submissions, fifty evidence roundtables and over one thousand personal/one-on-one conversations the Rt Hon Chris Skidmore has had – and it unequivocally commends the UK to move forwards to implementing a phased-measurable and decadal milestone-based plan (see figure 1).

Second, the CCC report – ‘Delivering a Reliable Decarbonised Power System’ is a scenario simulation of the UK power system to 2035. Incidentally, one of the milestone years in the Skidmore Report which speaks to the first two of the six pillars of the Skidmore Report mentioned in figure 1, and the two reports taken together, suggest a period of significant transformation in the policy, business and operational landscape in the UK energy system – not just the power system – between now and 2035.

The CCC reports and shares the optimism that UK can achieve Net Zero – and before you ask, there is no consensus yet on what an economy-wide Net Zero means; but for the power system, the implication is clear – zero carbon power by 2050. It is a tall order, even if we are the global leaders in decarbonising the electricity system – with one of the lowest grid emission factors in the developed world (carbon emissions per unit of electricity supplied).

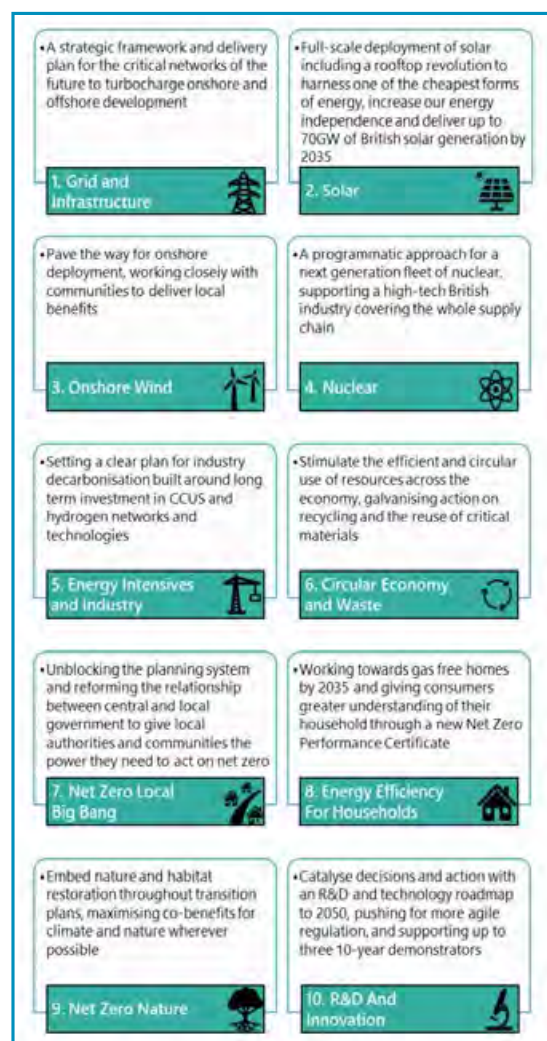
Both reports bring into sharp focus the future role of abated fossil fuel technologies – the role of CCUS, Hydrogen, the infrastructure challenges of managing flexibility – resilience and reliability incorporating inherently intermittent technologies such as wind and solar and future nuclear. Not surprisingly, there isn’t much discussion yet on costs or what impact it might have on our communities, but that is where the future of energy debate is headed.

This is an exciting time in UK energy and the reports talk about how this can propel the UK to future global leadership and prosperity, all of which will be discussed on 29 November at the Duke of Edinburgh Future Energy Conference.

In the meantime, do ponder over this exciting transformation that is unfolding but also let’s remind ourselves, the UK contributes to two per cent of global emissions; even if we achieve Net Zero, is the rest of the world ready and prepared to follow our lead?

What if we end up on the ‘Desert Island of Net Zero’, with a de-industrialised British society paying a high energy price while the rest of the world pays lip service to climate change? We are after all the only country in the world, let alone the G7, to have a Climate Change Act passed into law that commits us to Net Zero!

There is too much at stake in this Net Zero and the debate surrounding it, not just for the City (which is working hard to deliver its part) but for British society as a whole. How society as a whole comes together to make Net Zero happen remains to be seen.



The Independent Review of Net Zero is a decadal milestone based approach focusing on 25 Policies for 2025 (25-for 25) 10 priority missions to be launched 2035 and achieve Net Zero by 2050 on the basis of “Six Pillars” – namely:

- Securing Net Zero:
- Powering Net Zero
- Net Zero and The Economy
- Net Zero and The Community
- Net Zero and The Individual
- Net Zero and The Future

Our Duke of Edinburgh Future Energy Conference on 29 November in London is about Future Energy and designed for a robust discussion on all the six pillars of the Independent Review of Net Zero.

Watch out for more details being announced soon.

Figure 1: The Independent Review of Net Zero, March 2023 by Rt Hon Chris Skidmore MP

BP Energy Outlook, 2023

Edward Libby, Liveryman



BP has just published its latest 'Energy Outlook', its perspective on where the world is on all matters relating to energy supply and demand. This is produced by BP's in-house team of economists led by the Chief Economist Spencer Dale.

Some Fuellers will have heard Spencer speak in person when he gave a keynote talk and Q&A at the first two Fuellers HRH Earl of Wessex Energy conferences. Those present will remember his insightful comments on global energy demand as well as the geo-political impact of Covid and the challenges of climate change. Until about ten years ago these were largely internal BP reports though the matching 'BP Statistical Review of the Year', now over seventy years old, it is widely recognised by energy experts and commentators as the 'go to' place for in-depth factual analysis and insights. I know from personal discussion with previous BP Chief Economists how seriously it is received by Governments around the world. We were indeed honoured to have him present in 2019 and 2021 and a representative from BP will be back again at this year's Duke of Edinburgh Future Energy Conference on 29 November.

I will not even attempt to summarise this year's Outlook – it is over one hundred pages long with dozens of graphs and tables worthy of a detailed read. It is readily available on BP's website with full supporting documentation and commentary.

A great challenge

It is always a great challenge to choose the right time to look forward publicly. In 2022 the Ukraine war broke out just before publication and this year we have already had a Covid lockdown in China, a banking crisis in both the US and Europe and an unscheduled OPEX+ meeting and cutbacks in global oil production. All these have ruffled oil markets, though BP insists it is looking at broader energy scenarios and not at any particular price forecast which it wisely refuses to make. One has only to look back over the past twelve months to

see how wildly wrong some experts can be: the Economist predicted \$250-300 per barrel oil prices only twelve months ago and one large American bank in the Summer predicted \$380!

Let me offer a few headlines from this year's Outlook that caught my attention

The war in Ukraine has heightened concerns for national energy security. Energy markets are highly inter-related



as well as very reactive to major global events. The Ukraine conflict has shown, particularly in Europe, how vulnerable local economies can be disrupted by interruptions of energy supply. It is my judgement that the cut-off of Russian natural gas to Europe is probably the largest and longest such energy curtailment we have seen since the end of the Second World War (even that of the 1973 Arab oil embargo). BP views that the need to guard against this in the future will emphasise the shift to domestically produced renewable fuels, accelerating further the energy transition.

In fact, as BP notes, there has already been a rapid increase in electricity production with decarbonised generation as electricity becomes a major component of final energy consumption. BP anticipates a rapid decline in the carbon intensity of electricity generation with increasing dominance of wind and solar power. There is a wide range of possible outcomes by 2050 but more focus and a significant

increase in the financing and building of new generation capacity will be needed to meet existing climate goals. Overall, BP expects total final energy use to peak in the coming decade as progress is made on energy efficiency (or in the 2040s if less progress is made).

Oil use is seen to plateau over the next decade, dependent on the fall in use of oil as a transport fuel. The speed of this transition to electrically powered vehicles (and other carbon free fuels) remains clouded by recent policy reversals in Germany and Italy, though BP sees the US Inflation Reduction Act propelling forward the transition with its multiple fiscal and tax incentives. This has the potential to attract investment into the USA and away from Europe, but oil will remain a significant global energy source for many years ahead. BP identifies the need for continued investment in upstream oil and natural gas over the next thirty years but despite this, the world will become increasingly dependent

upon OPEC as the producer of last resort. By the 2040s/2050s global dependence upon OPEC oil supply could reach fifty or even sixty per cent of the total, a level of dependence we have not seen since the 1970s, though by then OECD overall dependence upon oil as a primary energy supply will have fallen significantly.

BP sees continued development of all the alternative non-fossil energy sources including wind and solar as well as biofuels. Hydrogen has a critical role to play in the transition, though the major impact is probably two decades away (my interpretation). Nuclear continues to play a role though it is not seen as a game-changer and Carbon Capture and Storage is a necessary technology to meet Paris carbon goals.

Overall, the BP analysis suggests steady progress toward meeting global carbon emission targets but as the old school reports might have said: “good work but needs to try harder!”. The BP analysis suggest a wide range of outcomes in terms of both extent and timeframe. There is no simple easy answer – progress needs to be made on a wide range of options to meet 2050 targets. From a personal perspective, I tend to take the optimist’s view – we may not have achieved everything deemed necessary but looking back a decade we have achieved a lot more than some thought possible at the time. We tend to underestimate what technical innovation will achieve in the future – perhaps even fusion will eventually play its part?

If you have particular interests or questions do look at the full report. It may be densely full of data and statistics, but it is very readable. You may not agree with all its conclusions but we should thank Spencer Dale and his team of economists for sharing their analysis with us.



Fueller's Advantage Event

The Geothermal Business Model and the Oil & Gas Industry

Tim Lines, Liveryman



A summary of the Fueller's Advantage Event jointly held with the Science Circle of the National Liberal Club on 14 March 2023 at the National Liberal Club by Tim Lines, Liveryman

The production of deep geothermal heat from porous rock and natural fractures is widespread around the globe, but in 2020 contributed only 0.4 per cent of global primary electrical energy supply and 0.2 per cent of global primary direct use heat supply (figure 1). The USA is the largest contributor of geothermal electrical energy, and China overwhelmingly the largest of geothermal direct heat, facilitated by changing building regulations to enable lower temperature district heating in buildings. The IEA World Energy Outlook 2022 (IEA) forecasts that geothermal energy would contribute only one per cent of global primary electrical and heat energy in 2050, including ground source heat pumps (which are not the subject of this presentation).

This presentation argued that by deploying current oil and gas technology (particularly hydraulic fracturing in long horizontal wells); plant; balance sheets; and human resources, geothermal energy could by 2050 contribute twelve per cent of global primary electrical energy and 22 per cent of primary direct use heat energy by drilling 50,000 geothermal wells each year from 2030. For comparison, almost 70,000 oil and gas wells are forecast to be drilled globally each year to 2025. If current oil and gas and geothermal research were successful, and the well drilling rate were to double to 100,000 wells each year, geothermal could by 2050 contribute over 75 per cent of global electrical energy and

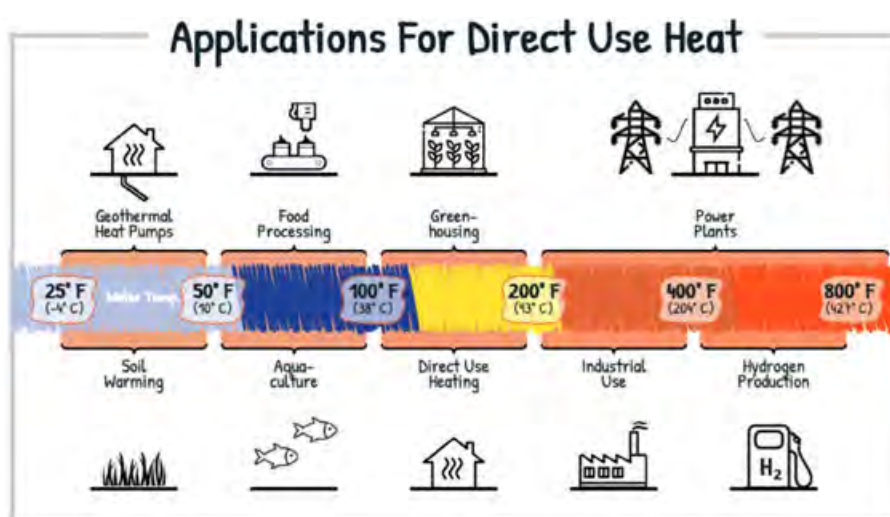


Figure 1: Multiple Industries can benefit from geothermal heat. Direct Heat can be used for District Cooling networks, Air Conditioning. Source: Kapusta et al, Ch 2, Future of Geothermal in Texas, 2023.

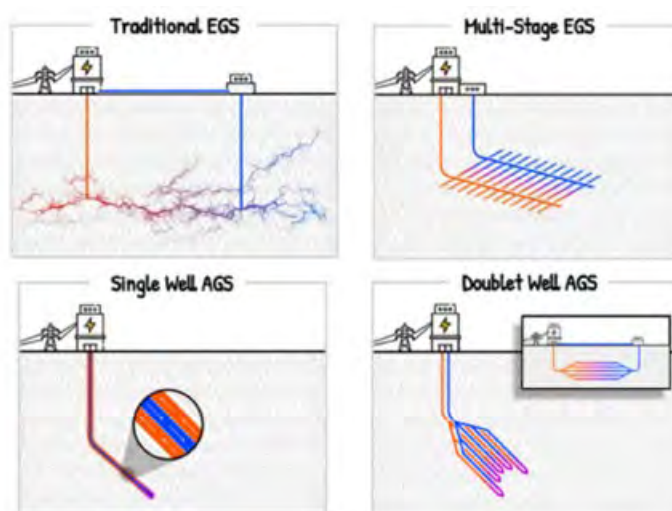


Figure 2: Enhanced Geothermal Systems (EGS); Advanced Geothermal Systems (AGS). Source: Livescu et al, Ch 1, Future of Geothermal in Texas, 2023. First traditional EGS, 2009, Alsace, France: 1.7 MWe from 2 wells in fractured granite (2.2 miles, 3.1 miles deep), Koelbel & Genter, 2017.

all global connected direct use heat energy. To achieve Net Zero by 2050, the IEA forecasts a reduction in oil and gas energy supply from 330 exajoules in 2021 to 80 exajoules in 2050, creating an opportunity for 75 per cent of the oil and gas plant, capital and people to pivot to geothermal drilling and production.

Geothermal energy is everywhere. The crust contains 25,000 times more geothermal energy than fossil fuel energy. Drilling vertical and deviated wells into permeable and naturally fractured rock has demonstrated geothermal can be commercial without subsidy. Multistage hydraulic fracturing technology from the shale oil & gas industry has been demonstrated by, a.o., the US government to work in deep igneous, metamorphic and basaltic impermeable rocks where the majority of the heat lies. The technology is illustrated in figure 2, Multi-stage EGS, and figures 3 to 5, and note that terms such as “soft hydraulic stimulation” and “hydro-shearing” are now used. In 2023, the Horizon-Europe programme granted €92m to demonstrate a geothermal horizontal well technology in Geretsried, Germany which does not fracture rock (AGS, figure 2). The UK’s first naturally fractured igneous rock geothermal project, United Downs in Cornwall, has produced water at 190°C. It used “soft hydraulic stimulation” to improve the injected water flowrate between a 7300’ deep cold water injection well and a 16,400’ hot water production well that intersect the same natural fracture. Cornwall Council applied Peak Ground Velocity guidelines for blasting, quarrying and mining activities, rather than the 0.5 Richter Scale stipulated by the Oil and Gas Authority for shale gas. United Downs developed excellent relations in a local community with a long history of mining and quarrying. In 2023, United Downs received an investment of £15m to expand its production of geothermal electrical energy and heat energy for the local community.

This was the second Fuellers Advantage, hosted jointly by the Science Circle of the National Liberal Club and the Fuellers. The event attracted 35 attendees to listen to Tim Lines, CEO of Geothermal Wells LLC.



Figure 3: A busy drill pad with frac fleet. A well is hydraulically fractured in multiple stages. Typically 450 tonnes of sand (or bauxite) per well are used to prop the water-pressure-induced fractures. Source: Photos by Doug Duncan, USGS. Marcellus Shale gas play of southwestern Pennsylvania.



Figure 4: Hydraulic Fracturing in the Oil & Gas Industry: Source Schlumberger ‘hiway’ technology (also: Liberty, Halliburton, Baker-Hughes etc).



Figure 5: Geothermal in Reykjavik: Well RV-43 drilled and “soft hydraulically stimulated” 750m from a housing estate in city limits of Reykjavik. Source: Hofmann et al.

News

Junior Warden reaches great heights

Having accepted the challenge, as part of a twelve-strong team, to climb Mount Kilimanjaro to raise funds for City Harvest and Make-a-Wish charities, Junior Warden, Elena Oderstone embarked on a regular training routine to build up her stamina and be ready for the challenge.

Elena was determined to reach the summit as “a very personal test of endurance of the cold and altitude” and in memory of her father and on Saturday 11 March she kept that promise to herself. In a triumphant ascent, she scaled the 19,000 feet high peak in Tanzania and proudly raised the Fuellers banner in celebration of the achievement.

Elena says the hardest part was acclimatising to the high altitude, an aspect of the challenge that is difficult to train for. As an extreme altitude mountain trek, it is widely understood that many of those attempting the climb suffer from mountain sickness and it was a concern Elena had prior to the trek.

Having overcome this apprehension, Elena said she was delighted to make the summit but admitted the challenge was “much harder” than she had envisaged. In doing so, she raised £3,000 to be split between the two charities that she “feels very passionately about.”

Elena said: “I would like to thank Fuellers for their generous support and for the messages of encouragement.”

Well done Elena, what an achievement.



Top: Junior Warden, Elena Oderstone raising the Fueller's banner as she reaches the summit of Mount Kilimanjaro.



Bottom: camping on route.

Livery Charity Chairs Group launches the Livery Food Initiative, partnering with City Harvest

Fuellers show our support for the Livery Food Initiative, which aims to reduce food poverty in London.

The LCCG is raising funds for City Harvest, the food redistribution charity involved in the Livery Kitchen Initiative and already well known in the City. City Harvest takes high quality food which is about to go to waste from farms, manufacturers and retailers and redistributes it to charities throughout London, serving men, women and children in dire need, during what has been described as “a humanitarian crisis” in our capital city.



Past Master Chloë Andrews-Jones and Junior Warden Elena Oderstone with a City Harvest van.

Funds raised go towards the operating costs of keeping food rescue vans running, so they can deliver nutritious food to more than 375 charities and groups across London. The LCCG says: “Every £190,000 we raise will enable us to keep one of the City Harvest vans rolling for three years, delivering 2.4 million meals over that time. We want this Livery-wide initiative to keep as many vans running as possible.”

The keys to the latest City Harvest van were ceremoniously handed over by the Lord Mayor, Alderman Nicholas Lyons on 6 March with our Clerk Alex Maclean Bather and Court Assistant Louise Croucher Thompson in attendance.



Clerk Alex Maclean Bather and Court Assistant Louise Croucher Thompson with the latest City Harvest van.

To offer help and gain a clearer understanding of the task, Past Master and Chair of the Fuellers Charitable Trust Fund Chloë Andrews-Jones and Junior Warden Elena Oderstone visited City Harvest on 17 April and went out in the Livery Food Initiative van to deliver food to a food bank. They also “rescued food” from a Wholefoods supermarket, so that it could be re-distributed to those in need.

Elena said: “It was heart-breaking to learn that people had been queueing up from 6am to receive food from a foodbank that opened at 1.30pm. The sad reality is that

one in nine people on earth don’t have enough to eat and hunger and poverty in London are growing exponentially. At the same time there is a lot of food waste. City Harvest is definitely doing a great job in connecting the dots, for which City Livery Companies are truly grateful.”

Chloë agreed: “What struck me more than anything was seeing real need. We hear politicians talking about it and trying to find ways to solve it, but it doesn’t necessarily exist in real life unless you see it yourself, and that’s something that Elena and I saw.”



Past Master Chloë Andrews-Jones and Junior Warden Elena Oderstone with Fiona Hollis, City Harvest London's Head of Communications in their 13,000 square feet premises at The Vale, Acton, West London.

Fuellers support Anointing Screen for Coronation

We were delighted to make a financial contribution to the Anointing Screen used during the most sacred moment of King Charles III's Coronation. The Fuellers joined several Livery companies contributing to the screen which has been gifted for the Coronation by the City of London Corporation and participating Livery Companies.

The screen combines traditional and contemporary sustainable embroidery practices with the central design taking the form of a tree which includes 56 representing the 56 member countries of the Commonwealth. The individual leaves have been embroidered by staff and students from the Royal School of Needlework, as well as members of the Worshipful Company of Broderers, Drapers and Weavers.



The Anointing Screen was seen by millions of people during the coronation of HR King Charles III.

Past Master becomes HRH The Duke of Edinburgh

We were delighted to be able to congratulate our Past Master (2019-2020) Prince Edward on receiving the title of Duke of Edinburgh. The newly conferred Duke of Edinburgh has been a member of our Livery since 2011 and the Master contacted him on behalf of the Company on 13 March 2023 to acknowledge his new title.

We were also honoured that the Duke of Edinburgh was able to join us for the Election Luncheon on 19 April at Vintners' Hall where we could congratulate him in person.

The title was conferred on him by HRH King Charles and will be held for His Royal Highness's lifetime.



Fuellers merchandise

Merchandise

Please take a moment to check out the Fuellers Shop in the Members Area on the website. Notebooks, ties, umbrellas are just some of Fuellers merchandise that is available.

Visit the shop to place your orders [here](https://www.fuellers.co.uk/shop/).



See the full range: www.fuellers.co.uk/shop/

Join the conversation

Event highlights

A round up of Fuellers recent events

Fuellers Visit to Citigen Smithfield

Monday 16 January 2023

This facility is run by E.ON and is a fascinating power generator in the City of London at Smithfield. It is hidden away behind a Grade 2 listed building. The visit began with a one-hour briefing, before attendees donned hard hats and high visibility jackets for a tour of the facilities.

The Citigen site was originally a coal-fired power station, opened in 1894. More recently, E.ON has transformed it into a state-of-the-art sustainable low carbon, urban energy supply for the City of London replanting it in 2013. It now provides heat and cooling from natural gas-powered generators, electric chillers as well as leading-edge heat capture. This is done from ground source wells drilled in 2021 which are 200 metres deep, as well as the capture of other waste heat sources on site for increased efficiency.

Citigen has eleven kilometres of underground pipes supplying the Barbican Estate, The Guildhall and many other commercial and residential properties.

HMS Sultan Affiliates Day – Caledonia Gate, Portsmouth

Thursday 23 February 2023

Paul Mott, Liveryman

On 23 February, Simon Parsons, Dave Marsh, Max Bolhoff, Stephen Lloyd, Paul Mott and Alex Maclean Bather, our Clerk, along with other livers, professional bodies, and two local majors, enjoyed a completely different Livery visit to HMS Sultan compared to the past. Our host

was the base commanding officer Captain Jo Deakin OBE, and her team were as ever the most welcoming, friendly and professional hosts, making a lot of effort to ensure that each group got to know other visitors. We all remarked that Jo has an amazing focus on relationship-building and people skills.

It became apparent that we were witnessing some major changes taking place: training has within the last year been digitised so that trainees attending in person from across the services – Sultan now serves REME from the army, as well as RN, RFA and some other service groups – are videoed as they perform tasks, so that their instructor can review what they have done without having to be at their side at the critical moment, and so that they themselves later in their careers can review the saved video to overcome skill-fade. Moreover, a bigger reform is that more than half of the training is now being delivered remotely, which has already saved a great deal of time for both trainees and trainers that it is adding the equivalent of 30 extra person-years a year to the RN, with the reforms still being extended further.

Additional highlights were a gun carriage demonstration by a focused group of young trainees, a talk on training for the submarine service, and an excellent lunch. The thank you address on behalf of us all was given by a Shipwright who was the former base commanding officer at Sultan.

HMS Sultan, one of our Affiliate Military Units, is home to the Defence School of Marine Engineering (DSMarE) and the Royal Naval Air Engineering and Survival School (RNAESS) and supplies the Fleet with engineering Officers and Ratings.

Kings College London, Launch of the Net Zero Centre

17 April 2023

Peter Harrison, Master

The Master Peter Harrison, the Clerk Alex Maclean Bather and Court Assistant Ashutosh Shastri attended an evening event at Kings College London to launch their new Net Zero Centre. The idea of the Centre is to help bring together different sectors of academia, policy, and business to discuss how collaborative working can help achieve the 2050 Net Zero target.

The attendees were a mixed group from all different and varied sectors and the Fuellers were pleased to be representing the Livery Companies.

The event was opened with an impressive scene setting given by Professor Shitij Kapur, Principal and President of Kings College London. Professor Barbara Shollock, Director at the Centre then welcomed everyone.

The main event was a panel presentation, discussion and Q&A session. The panel consisted of the Rt Hon Chris Skidmore MP, Chair of the All Party Group on the environment and who published the 'Mission Zero' report in January 2023; Dr Elizabeth Rowsell, Director of Technology Centres at Johnson Matthey; Allan Baker, a power sector specialist at Societe Generale; Christina Rehnberg an environmental, social and governance specialist at Delancey the real estate asset management and advisory company; and Dr Sinead Balgobin, a regional Head of the Engineering and Physical Sciences Research Council. The session was lively and interesting.

Conclusions were that major challenges need addressing, including lack of skills where new individuals need to be recruited as well as the need for re-training and upskilling others. Also, a lack of investment in new technologies needs the right policies to encourage such investment and requires more appropriate regulation to stimulate “pull through”. It was also noted that connecting the dots needs urgent attention to join up all the different parties and interests for improved collaborative working.

A long term, e.g., ten-year, view and horizon was discussed and the need to get The Treasury more “on board”.

In the summary, the point was made that Net Zero is the big global issue of the 21st Century and is one of the greatest challenges of mankind. The UK needs to do a lot more to decide what role we have.

After the event, student guides took the delegates in small groups around the facilities in the Net Zero Centre. Several interesting projects are underway and attendees were able to chat to the team leaders and students.

Overall, this was an exciting and stimulating event, but there is a lot to do to achieve the Net Zero targets.

Lord Mayor's Masters Banquet – Mansion House

Thursday 23 March 2023



All Masters and Consorts are invited to Mansion House for the annual Lord Mayor's Masters with Consorts Banquet at Mansion House. This is a white tie event and is regarded by many as “the blue ribbon” event of any Livery year.

This year, Mansion House was packed with over 350 attendees with speeches from the Lord Mayor and Masters of two of the “great twelve” Livery Companies. A special feature of the evening was the attendance of the Lord Mayor's Bodyguard provided by the Pikemen and Musketeers of the Honourable Artillery Company.

In his speech, The Lord Mayor took the opportunity to recognise the work undertaken by the Livery Companies for our respective industries and for the City. He said: “This is hugely important, and hugely appreciated.”

Although, keeping it light, he also referred to the challenging times of the past year, but said that Livery activity had “been nothing short of inspirational.”

It was a thoroughly delightful evening with plenty to celebrate.

United Guilds Service

Friday 24 March 2023

Peter Harrison, Master



The annual United Guilds service was held at St Paul's Cathedral and Jan and I attended along with the Clerk, Alex Maclean Bather and the Junior Warden, Elena Oderstone with a number of Fueller members. This is one of the few occasions where all the Livery Companies and Guilds gather together. The robes made a spectacular splash of colour under the beautiful dome of St Paul's. The event's origins are relatively recent having started in 1943 in response to the Blitz as a reminder of the religious origins of the Guilds.

Afterwards our Fuellers group joined some other Companies for lunch at the nearby Pewterers Hall. Master Pewterer, HH Wendy Joseph KC, who I had heard speak earlier in the week at the Modern Livery Companies dinner on 13 March, hosted the event and gave a little plug for her book which has now entered the Sunday Times Bestsellers List. I had the pleasure of sitting next to her.

The Lord Mayor's Big Curry Lunch – Guildhall

Thursday 30 March 2023

Peter Harrison, Master



The Big Curry Lunch demonstrates the City's support for members of His Majesty's Armed Forces and veterans through the three National Service Charities: ABF The Soldiers' Charity, Royal Navy and Royal Marines Charity and Royal Air Force Benevolent Fund.

Every year guests include senior leaders from the City's business and professional communities, members of Livery Companies and Ward Clubs, the senior officers of the Royal Navy, Army and Royal Air Force and members of both Houses of Parliament.

Jan and I attended this year and thoroughly enjoyed it. Each of the three meal sittings had four buffet tables on the go along with drinks, a prize draw, a silent auction, author's tables and various Livery stalls. It was a fun way to raise funds for the charities.

Fun in the sunshine at the Master's Weekend

19 to 21 May 2023

Sunshine, sonnets and lashings of custard will be the long-lasting memory of the 2023 Master's Weekend.

Held in Stratford-upon-Avon over the weekend of 19 to 21 May, you will remember it as being the moment that spring decided to make an appearance, the Master and his Consort had organised a comprehensive schedule of events with plenty of free leisure time to ensure the mood was relaxed. As the location demanded, William Shakespeare was never too far away from the occasion, with the town littered with references to the Bard.

Those attending enjoyed a guided tour of the nearby British Motor Museum, followed by an informal dinner on the Friday evening, culminating in a nightcap in the bar for those keen to enjoy that Friday night feeling. The sun-drenched Saturday saw us indulge in a cultural guided walking tour of the town, a river boat trip on the Avon, time for shopping and general sightseeing, plus a truly over-indulgent excursion to the world-famous pudding club in the evening for a light main course and the sampling of seven traditional puddings accompanied by "lashings of custard", as per the instructions!

For the lucky early booking attendees, there was a detailed and "access all areas" tour of the Royal Shakespeare Company Theatre, including the Swan Theatre on Sunday morning – late enough (thank you Peter) for Fuellers to recover from the pudding onslaught the night before. This was followed by a coming together of the whole group to enjoy a charming lunch at the RSC's Rooftop Restaurant overlooking the river and town, before departing for homeward journeys, or staying an extra night for those keen to continue to enjoy the Stratford vibe.



Shakespeare



Pudding Club



Such was the inspiration of the surroundings, that Junior Warden Elena Oderstone took pen (not quill) to paper to commemorate the occasion:

*"Oh, energy! The force that drives our world,
A power that doth make the heavens unfurled.
It flows through all, from smallest mote to star,
And drives the winds, the waves, the earth afar.*

*And in the streets of London, there doth shine,
A guild of Fuellers, with craft refined.
Their voices ring with energy and power,
And keep the city's heart alight each hour.*

*Oh, Peter Harrison! A Master true,
Of Fuellers Company, with heart anew.
Thy leadership doth guide the guild with care,
And keep the world alight, with energy's rare.*

*And we thank thee, Peter, for thy toil,
In organising the Master's Weekend in Stratford-upon-Avon's soil.
Thy dedication to the guild inspires,
And keeps the flame of energy burning on, like Shakespeare's fires.*

*May we honour thee, Fuellers Company,
And all thy members who keep the flames alight.
May thy voice be heard in every corner,
And keep the world aglow with great might."*

Elena Oderstone, Junior Warden and William Shakespeare

Read the full coverage of our recent events at www.fuellers.co.uk/news

To find out about future events visit fuellers.co.uk/events-list

Fuellers Activities

Charitable Trust Fund

Past Master Chloë Andrews-Jones, Chair of Trustees

Charles Stephenson Clarke Prizes 2023

Named after the Company's Founder Master, the Trust judges and awards prizes for the best dissertation projects in the MSc in Energy & Environmental Technology and Economics.

The City Programme Director nominated a shortlist of candidates who are asked to prepare a short presentation given to the panel of judges over Zoom, this year consisting of Liverymen Professor Martin Fry and Bill Walworth and PM Averil MacDonald OBE. We were not judging the absolute merit or workableness of their proposals, but more the way the idea had been researched and presented.

After listening to their presentations, we awarded the prizes as follows:

- **1st Prize:** Kanchi Gashaw "Utilisation of Hydrogen for the Smart Operation and Optimisation of Renewable Energy Systems."
- **2nd Prize:** Katrina Dasalla: "Locational Marginal Pricing and Its Effect in the Re-Dispatching Cost in Great Britain."

The prizes were presented at City in March, where I talked about the Livery and the Company and Trust and Averil told the next cohort of students how they can be considered for next year's prize.

Further details on their dissertations can be found on the website.



Chloë presenting Katrina Dasalla with her prize, watched on by Kanchi Gashaw who was unable to attend in person.

Meet the Trustee

Governance

The Charitable Trust is managed by a group of eight Trustees, including me as Chair. We're also assisted by one or more Advisers who are elected annually. The Company's Master is invited to attend our meetings during their year, and our Honorary Secretary is none other than the Clerk.

It's time to meet one of these Trustees, Dickie Walsh. He joined the Fuellers in 2019 after attending that year's Future of Energy Conference and being impressed with the strategic thinking the Fuellers were doing around the energy transition. Dickie is the Director of External Affairs at Cadent, the UK's largest gas distribution company and he and his team lead on Cadent's political engagement work on the development of a hydrogen economy. Reflecting on the work of the Charitable Trust, Dickie said: "The role of a Trustee is so rewarding. Being able to see first-hand the difference that our charity can make in the lives of so many has been truly inspiring".

Dickie is Finance Director for the infrastructure trade association StreetWorks UK and is also a member of the Company of Communicators who are hoping to achieve Worshipful Company status soon. Outside of work, Dickie ensures his academic background in archaeology doesn't get too rusty and is a staff archaeologist for the University of North Carolina, Charlotte on their archaeological programme in Israel.

Photo: Dickie in his day job



Community Energy London

CEL has been in touch to advise how they used our recent grant. Topping up their own crowdfunding enabled them to fund four CEL groups to work in their areas and hand out a variety of small energy saving measures that can be taken by anyone, whether homeowners or not. These included reflectors for radiators, film for single glazed windows, brushes for under doors, LED lightbulbs and crucially fuel vouchers for people at risk of being disconnected when pre-payment meters can no longer be fed.



Community Energy London "Shopping List"

Livery Climate Action Group

Prof Averil Macdonald OBE, Past Master

Fuellers was a proud Founder Livery Company of the Livery Climate Action Group (LCAG) in 2021 in response to the City Corporation Climate Strategy. After only two years (May 2023) LCAG now comprises 77 Livery Company members, each one committed to its own journey to reduce its impact on the environment in the widest sense.

While hall-owning Companies have major work to do to reduce their impact through energy choices and management of waste resulting from running a hall, nomadic Companies, like Fuellers, have a role to play, for example in influencing the caterers and menus for Company events based on their attitude to food miles and food waste.

More significantly Fuellers are in a very important position in being the source of expertise for the wider livery and beyond in understanding how energy usage impacts the environment. Indeed, the Duke of Edinburgh Fuellers Future Energy Conference is a major element in realising this ambition.

LCAG has hosted a wide range of events, many on-line to reduce the environmental impact of travel to in-person events and to increase the number of people who can benefit. Seminars have included the 'Young Voices' seminar, run by PM Averil Macdonald working with Fuellers' Partner Charity Smallpeice Trust, and the 'Responsible Off-Setting' seminar led by Fueller Gavin Towers. Future events will include an in-person conference in July 2023, followed by on-line seminars on Sustainable Investment and reviewing the Ten Great Gardens later in the year.

Most significantly Fuellers, alongside all members of LCAG, has a role to play in influencing and supporting our related professions and trades and our military affiliates in considering how they might reduce their environmental impacts. Consequently, Fuellers has led in developing our own Climate Action Plan which has been up-loaded onto our website and onto the LCAG website as an exemplar to help others determine their own future plans.

The Fuellers' biannual conference

The Duke of Edinburgh Future Energy Conference

Save the Date – 29 November 2023

Royal Society of Medicine
1 Wimpole Street
London W1G 0AE

We are delighted to announce the date of our conference. More information, including registration details will be available shortly.

Visit:

www.fuellers.co.uk/future-energy-conference-2023/

Dates for your diary

June

Wednesday 14 June

Midsummer Court and Dinner

Butchers' Hall

Friday 23 June

HMS Sultan Fuellers Steam Truck Day

Portsmouth

Monday 26 June

Common Hall Election of Sheriffs and Lunch

Guildhall

July

Monday 2 July

Visit to Solar Farm

Dorset

Monday 17 July

Annual Thanksgiving Service

St Olave's Church, 11am, followed by

Affiliates Lunch and Prizegiving

Trinity House

September

Friday 22 September

Sherrif's Ball

Guildhall

Sunday 24 September

Woolmen's Sheep Drive and Livery Fair

London Bridge

Friday 29 September

Common Hall Election of Lord Mayor and lunch

Guildhall

October

Wednesday 11 October

Installation Court & Dinner

Stationers' Hall

November

Saturday 11 November

Lord Mayor's Show

Wednesday 29 November

The Duke of Edinburgh Future Energy Conference

London

To find out about future events visit fuellers.co.uk/events-list

Expert Comment

Neville Chamberlain CBE, Past Master

Nuclear Energy



It is surely a prime duty of Government to ensure that its citizens and industries have access to plentiful, affordable energy, energy which is safe, secure and reliable and which does not contribute to our carbon emissions.

It is a duty which successive Governments have failed to discharge. The current energy crisis means that such failure can no longer be tolerated.

Of all the options, only electricity generated from nuclear energy ticks all the boxes against the required criteria. It is safe, clean, secure and reliable; managed properly it is one of the cheapest forms of electricity available to us. It emits almost zero carbon.

Our old fleet of Magnox and AGR power stations have demonstrated these benefits but these workhorses have now reached the end of their lives and need to be replaced.

Successive Governments have recognised all this but have failed to do anything about it, with the single exception of allowing Hinkley Point C which is French owned and operated. Soon, even with that plant on line, the nuclear component of our electricity will be down to ten per cent.

Government progress has recently been limited to a series of “consultations” and token “development funds” for which industry has had to make expensive and time-consuming competitive bids. A series of minor initiatives does not amount to a policy. Flurries of activity should never be allowed to mask failure to take meaningful action.

There have been endless, repetitive debates on alternative ways to manage nuclear waste. No industry knows more about how to manage its waste than does the nuclear industry. Every waste stream is captured, solidified, encapsulated and placed in a secure, managed store where it can safely decay.

Now it is time to get on with a major new building programme of both large power stations, each with equivalent outputs to Hinkley Point C, and a fleet of Small Modular Reactors (SMR's) which can bring nuclear electricity into the heart of local demand.

It is very nearly too late to avoid catastrophic blackouts and lasting, crippling energy prices. But, hopefully, decisive action can save the day. Three new large nuclear power stations could halve the CO2 emissions from our current gas-fired capacity and the addition of a fleet of, say, twenty SMRs would virtually eliminate CO2 emissions from our electricity generation. There is no other credible way of achieving this. Moreover, the nuclear option would mean our electricity supplies would no longer be vulnerable to international politics and the vagaries of the UK weather.

We shall no longer need to appease our foreign energy suppliers and succumb to their blackmail on prices nor risk blackouts when the wind doesn't blow.

Government should give the necessary authority and appropriate funding to its new Great British Nuclear Authority and instruct it to get on with it. It is Government's responsibility to ensure the programme is funded, either directly or by underwriting the investment, at least until the units are up and running, when, with the main project and political risks behind them, they can be sold to the private sector. With 60 or even 80 years of continuous, secure operation ahead of them, what an investment opportunity for pension funds!

It is time to really embrace the nuclear option!

Neville Chamberlain
Chairman
Supporters Of Nuclear Energy

This article was first published in the Daily Express.

THE
Fueller
The official journal of The Worshipful Company of Fuellers

