



Copeland's Nuclear Road Map: An Update



Hello, and a belated Happy New Year to you all. I would like to start by thanking each of the wonderful organisations that have contributed to this newsletter over the past 6 months and I am pleased to be sharing with you the 4th edition.

Through the challenges of 2021, we have seen real progress being made both locally and nationally.

Rolls Royce SMR has secured private and Government funding to develop small modular nuclear reactors, and I am absolutely determined that Copeland will host the first SMR that comes on stream.

Moorside has been shortlisted as a potential host of the UK's first prototype nuclear fusion power plant, and we'll know in 2022 whether this has been successful.

Two GDF Community Partnerships have been formed – in mid and south Copeland – to explore whether those areas are suitable to house a geological disposal facility.

As outlined in the Net Zero Needs Nuclear roadmap that was launched last year, nuclear can meet all of the Government's ambitions to level up, reach net zero, and to build back better after Covid by creating thousands of skilled green jobs.

In Parliament, The Nuclear Energy (Financing) Bill for the Regulated Asset Base model began its Commons Report Stage.

The Bill will facilitate investment in new nuclear using the Regulated Asset Base (RAB) model, in which consumers will contribute to the cost of new nuclear power projects during the construction phase. This will encourage a greater diversity of private investment and, ultimately, lower the cost of financing new nuclear and reducing the cost to consumers.

Ensuring we reach net-zero by 2050 is the greatest challenge we face as a country today. The urgency with which we need to act has been evident from the events at COP26 last year.

To reach net-zero, we will require 10 times more clean energy than we have today. Nuclear is uniquely placed to deliver this as our only source of reliable low-carbon power, and it is so crucial from an emissions perspective that we in Britain oversee a programme of new nuclear - large and small.

I hope you find this update helpful and please do get in touch with me at Trudy.harrison.mp@parliament.uk if you would like to join Copeland's nuclear support group.

Praise for Copeland's Apprentices



Trudy has praised the passion, skill and dedication of the area's apprentices.

Trudy spent this month's National Apprentice Week speaking with apprentices from a wide range of fields including nuclear, engineering, health, tourism and the arts during a series of in-person and online meetings.

Trudy said: "I am blown away by the quality of apprentices we have here in Copeland, and it's been a privilege to meet just a sample of them during National Apprentice Week; to hear more about their routes into their chosen field and their ambitions for the future.

"The breadth of apprenticeships on offer is wide ranging - from nuclear, health, tourism, leisure and hospitality as well as traditional trades – and all the apprentices I met this week are a credit to themselves and their employers and I'm sure all have a bright future."

Trudy also hosted two online discussions to offer viewers an insight from local apprentices and apprentice providers.

Joined by Alex Burghart MP, the Parliamentary Under Secretary of State for Skills, Trudy spoke with apprentices and providers from Sellafield Ltd, United Utilities, Lakes College, UCLan and the Ravenglass and Eskdale Railway, who all spoke first-hand about the opportunities that apprenticeships provide.

Trudy added: "There have been 9,540 apprenticeships starts in Copeland since 2010, and the benefits are significant. By combining on-the-job learning with academic study, apprenticeships help individuals develop skills and knowledge for a rewarding career, and they help employers build a workforce for the future."

Trudy's online sessions are available on her Facebook page [@trudyharrisonforcopeland](#). For more information on apprenticeships, visit www.apprenticeships.gov.uk

Rolls Royce SMR Progress: An Update



Rolls-Royce SMR was established in November 2021, having secured funding from Rolls-Royce Group, the investment company BNF Resources, and Exelon Generation, America's leading provider of zero-carbon nuclear energy.

This enabled Rolls-Royce SMR to access £210 million of UK Government grant funding from UK Research and Investment (UKRI).

This significant news was strengthened on the December 20 when it was announced that the Qatar Investment Authority (QIA) will invest £85 million into the business, meaning Rolls-Royce SMR is now fully funded.

We now have over 200 job vacancies we are looking to fill, across engineering, procurement, supply chain development amongst a number of others (full details at www.rolls-royce-smr.com).

'We see a tremendous opportunity to contribute through SMRs across the North West Nuclear Arc and Cumbria will play a key role in helping us achieve this significant aim'

We are building a team to take forward the most exciting prospect in UK new nuclear and would encourage everyone to share the opportunity to contribute to the deployment of SMRs.

The final announcement we were able to make on the December 21 was the news that we have placed a contract for nearly £4 million with Sheffield Forgemasters.

These forgings form part of Rolls-Royce SMR's work to achieve regulatory approval and will allow both parties to understand and develop manufacturing procedures and techniques, to de-risk and accelerate the important first production of these vital components.

The challenge we have set ourselves for 2022 is to grow and develop at pace. COP26 highlighted the climate emergency and the need for every low carbon solution to come forward at pace.

We see a tremendous opportunity to contribute through SMRs across the North West Nuclear Arc and Cumbria will play a key role in helping us achieve this significant aim.



Fusion reactor bid moves forward as judges visit Copeland



Cumbrian leaders are confident that they have made the strongest possible case for the county to be selected as the host location for the UK's prototype fusion reactor, the Spherical Tokamak for Energy Production (STEP).

The United Kingdom Atomic Energy Authority's (UKAEA's) search for the best site in the UK to host STEP is nearing completion, with Cumbria's Moorside site still very much in the running.

A delegation from UKAEA recently visited the West Cumbrian site, adjacent to the Sellafield complex, and then played host to an online public consultation event aimed at explaining the selection process, which was attended by over 75 people.

Moorside is one of five locations shortlisted by UKAEA as part of a thorough and detailed site selection process. The others are:

- Ardeer (North Ayrshire)
- Goole (East Riding of Yorkshire)
- Severn Edge (South Gloucestershire & Gloucestershire)
- West Burton (Nottinghamshire)

STEP is an ambitious £222 million investment to support the design and build of a prototype fusion energy plant, with operations set to start in 2040. The programme is being delivered by UKAEA, on behalf of UK Government, with the initial aim being to produce a concept design and choose a site by 2024.

The STEP prototype will be used to develop the technology and enable a fleet of commercial plants to follow in the years after 2040 and will build on UKAEA's expertise in developing spherical tokamaks.

STEP is expected to create thousands of highly skilled jobs during construction and operations and act as an anchor to attract other high-tech industries to the area, furthering the development of science and technology capabilities, locally and nationally.

Cumbria's application was developed by Cumbria LEP and its Board members, together with Copeland Borough Council.

Please click [here](#) for the full article.

NDA group extends partnership to inspire young nuclear professionals



The Nuclear Decommissioning Authority (NDA) has announced a two-year extension to its ground-breaking industrial partnership aimed at inspiring and supporting young people in the nuclear industry.

Chief Executive, David Peattie, announced that the NDA's partnership with the Nuclear Institute's (NI) Young Generation Network (YGN) would continue for another two years following a hugely successful first year of collaboration and support.

The NDA group of companies became the YGN's first-ever Industrial Partner back in September 2020, and has supported a series of successful events over the past year, aimed at exhibiting industry leadership for young people achieving personal and professional development within the nuclear industry.

The partnership aims to support the development of early-career professionals in the industry, both within the NDA group and in the wider nuclear industry, and aligns behind the YGN's mission 'to encourage, develop and inspire young nuclear professionals and ensure that their voice is heard in shaping the future of the nuclear sector'.

The partnership also fosters opportunities for senior leaders within the NDA group to offer support to young professionals, to underpin the NDA's mission to 'be a great place to work' – and in forging NDA group collaboration.

Mr Peattie, has kept personally involved in the partnership, and has encouraged other senior leaders to support.

He said: "This partnership is unique and means the NDA group's aims of promoting and supporting young professionals to make a successful career in nuclear are perfectly aligned with the YGN.

"Their professional approach to the partnership and their dynamism in creating interesting platforms in which to engage and inspire has been behind our decision to extend the partnership for another two years."

A steering committee comprising young professionals from across the NDA group, including Sellafield Ltd, RWM Ltd, Low Level Waste Repository, Magnox Ltd, Nuclear Transport Solutions, Dounreay and Energus in West Cumbria has worked with NDA staff in organising a series of events which included the YGN Festival in 2020, seminars and interviews with senior nuclear leaders, and special one-off webinars.

The partnership will also continue to encourage educational attainment and professional qualification with the NI.

For the full article, please click [here](#).

NNL scientists inspire the next generation across Cumbria



The UK's national laboratory for nuclear fission shared the importance of the sector's work to combat climate change, following Glasgow climate conference COP26.

NNL's Chief Science and Technology Officer Dr Fiona Rayment OBE and Director for International Engagement, Security and Non-Proliferation Dr Rob Whittleston visited Dearham Primary School based in Cumbria before Christmas.

Together, the pair engaged over 100 pupils in Years 5 and 6 from across Arlecdon, Dearham, Flimby and Thornhill primary schools, all of which are part of West Lakes Multi Academy Trust, in an interactive session about how nuclear science is helping to solve some of the world's biggest challenges.

NNL is the home of the UK's first ever nuclear power station, and Cumbria has a long, proud nuclear heritage. NNL itself has 600 employees in the region who work across three world-leading laboratories to drive innovation in clean energy, helping ensure the UK can reach its net zero goals on time and affordably.

An interactive multiple-choice nuclear quiz took place and pupils learnt about nuclear fission through a lively chain reaction race.

Fiona and Rob also talked about what inspired them to become nuclear scientists. Harrison, a Year 5 pupil at Arlecdon Primary School, commented: "I am proud to be from Cumbria where the first nuclear power station was built."

At the end of the event, the NNL representatives took several insightful questions from the pupils related to climate change and what the nuclear sector is doing to leave the planet stronger and more sustainable.

Pupils across all four schools will continue to learn about the benefits of nuclear as part of the future energy mix, as well as Cumbria's own contribution to scientific innovation through NNL's work.

Following the visit, Dr Fiona Rayment wrote a comment piece, sharing the benefits of targeting the younger generation to pursue a career in the nuclear sector, you can read it [here](#).

Cumbria's Nucleargraduates London Footprints



Created and established by the NDA, the nucleargraduates programme is supported by organisations across the nuclear industry to recruit a diverse range of talent into the nuclear industry at a time of transformation.

The programme is delivered and managed by Enerigus who create opportunities that offer graduates a unique insight into all aspects of the nuclear industry, facilitating the development of new ideas and ways of thinking.

The programme enables graduates to undertake three secondments across different parts of the industry, complete a range of training to develop and enhance their skills and contribute to the communities within which they work.

In November 2021, our 2020 cohort of nucleargraduates spent a week in London undertaking training in influencing and negotiation.

They took part in workshops and activities to develop their knowledge and work with leading nuclear professionals.

In addition, nucleargraduates also got to work with David Neita; a celebrated lawyer and engaging social justice practitioner, who provided insight into political and social influence and how this was relevant to the nuclear sector and young professionals. This was delivered in various locations around London.

Emma McNichol, Cohort 2020 nucleargraduate, said: "It was a great opportunity to spend some time together as a Cohort in person. By far the best part for me was the power walk.

"It exceeded expectations and somehow brought out confidence in a lot of the Cohort that we haven't seen before due to working restrictions influenced by COVID-19."

Sophie Abrahams, Cohort 2020 nucleargraduate, said: "The influencing and negotiating training course was really useful leading up to the London event, especially an activity where we each established our different team working styles."

Two GDF Community Partnerships formed in Copeland



Two Community Partnerships have formed in Copeland to take forward discussions around geological disposal of the UK's higher activity radioactive waste.

The Mid Copeland GDF Community Partnership formed in November 2021 with a Search Area which includes the electoral wards of Gosforth & Seascale and Beckermest. This was followed in December with the formation of the South Copeland GDF Community Partnership which includes the electoral wards of Millom and Black Combe & Scafell.

A Geological Disposal Facility (GDF) is an underground facility designed to safely and securely dispose of higher activity radioactive waste. Community Partnerships are longer-term groups made up of a larger number of people to consider the possibilities of hosting a GDF within the identified Search Areas in more detail.

The GDF developer is considering the potential of the deep geology beyond the coast for siting the underground elements. Nuclear Waste Services (NWS) – which is the trading name of Radioactive Waste Management Limited - is considering the potential of the deep geology beyond the coast for siting the underground elements of a GDF.

This means a surface facility on the coast could provide access to a disposal area deep in rock beyond the coast.

The area within the Lake District National Park (LDNP) and proposed extension will continue to be excluded from consideration, as will any existing or future coal mines. Progressing to the formation of two Community Partnerships has unlocked access to £1m a year investment funding for each area, for local projects, rising to £2.5m per year if deep borehole investigations to assess geology take place.

The money can be used to support initiatives that provide economic development opportunities, enhance the natural and built environment, or improve community wellbeing. Enquiries and applications are already coming in. So far local councillors have joined the Partnerships alongside the developer, Copeland Borough Council and Cumbria Association of Local Councils (CALC).

Construction of a GDF requires both a suitable site and willing host community. If a suitable site is found in Copeland – such a decision could take 10-15 years - a Test of Public Support, which would give people a direct say, would be held with those within the host community. Without public support the project would not go ahead.

Some of the early work will include conducting geophysical surveys to gather evidence about the nature of the deep rocks in an area off the coast of Copeland in summer 2022. The community that takes the opportunity to host a GDF will receive significant additional investment and long-term benefits for future generations, including jobs and skills.

For further information on the Partnerships please click here: [Midcopeland](#) / [South Copeland](#).

Women in Control Systems promote science and engineering



Reaching new and influential audiences to promote an inclusive and gender balanced workforce - that's the Women in Control Systems group at Sellafield.

The group, who manage, maintain and modify control systems at Sellafield, were established two years ago with the aim of 'promoting development and recruitment to increase female control systems workers'.

Following the relaxation of Covid restrictions, they have grasped the opportunity to spread their message which has included meetings with Copeland MP Trudy Harrison and representatives of NDA's sponsoring body Business, Energy and Industrial Strategy (BEIS).

They have also attended career fairs such as Whitehaven Academy and a workshop at Valley Primary School.

Control Systems group member Natalie Parker said: "Our group was launched after we gave feedback to colleagues that there was a low female representation in the department, and there was a need to recruit more females to achieve a gender balance.

"Our main focus now is communications and engagement on our campaign.

"Sellafield Ltd does a lot of great work in the community, and we are working alongside other ambassadors to promote an exciting career in the nuclear industry to females who wouldn't otherwise consider such a career path.

"We are running our own workshop to encourage children to take up STEM based subjects, raise awareness about a career in control systems and hope in future more females will apply."

Fellow group member Nicola Richardson said: "At the careers fairs we talk about the different applications of control systems, the work carried out by a control systems engineer and demonstrated a project our apprentices have completed on a conveyor rig.

"We also discuss the opportunity to study while you work, such as the nuclear technician degree apprenticeship which includes the control systems career pathway.

"The school workshops have really taken off and we are fully booked for this school year. It's all about engaging the children while they are young and sparking that interest."

Natalie added: "As per the Nuclear Skills Strategy Group, the aim to have 40 percent women representation in nuclear by 2030, we are very excited to play our part in promoting the opportunities at our company and the wider industry."

News In Brief

Prime Minister discusses new nuclear during local visit



The Prime Minister discussed Copeland's issues and ambitions - including new nuclear - with local councillors and association members last week during a visit to the area.

Trudy said: "We were pleased to discuss the future of Cumberland with the Prime Minister during his visit.

"The Prime Minister was on top form, engaging with local leaders; he made time for everyone and all were thrilled to have his ear."

The Prime Minister's visit also included a morning planned at The Beacon Museum with the National Nuclear Laboratory and Rolls Royce to make the case for future power station sitings in Copeland, however, due to rising tensions in Russia, the visit was sadly cut short.

Trudy added: "We were obviously disappointed, but understanding, of his need to return to London earlier than planned, due to impending threats by Russia.

"However, he has committed to return to Cumbria soon."

A Sellafield decommissioning success has changed the Cumbrian skyline forever



Nuclear clean-up teams have removed the huge diffuser at the top of the Windscale Pile Chimney on the Sellafield site.

The diffuser gave the 125-metre chimney its distinctive top-heavy appearance.

It has loomed over the west Cumbrian landscape for nearly 70 years.

But after three years of careful dismantling, it has now been cleared.

The achievement has also removed the seismic risk associated with the chimney.

Geoff Carver, Sellafield Ltd project manager, said: "I'm delighted to have reached this point. Removing the seismic risk is a huge achievement.

"This is a clear demonstration of progress towards our purpose of delivering a clean and safe environment for future generations. Many people have contributed to this success."

Sellafield Ltd employees have worked closely with their colleagues from our partners ADAPT, Doosan, Mammoet, KDC, Kaefer, the Design Services Alliance, and Nuvia.

National recognition for collaboration



The Institute of Collaborative Working has recognised one of our major supply chain frameworks as best in class after winning the 'Supply Chain' award.

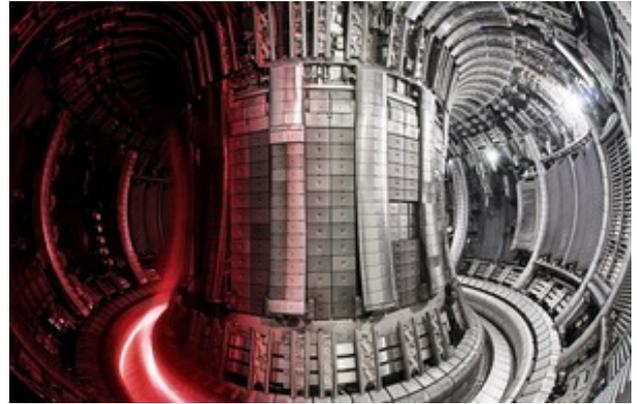
Sellafield Ltd and our Decommissioning Delivery Partnership framework partners ADAPT, CNSL, IDS, Nexus, TDA, i3 have received the prestigious 'Supply Chain' award' at the 2021 Institute for Collaborative Working annual event sponsored by the British Standards Institute.

Sellafield Ltd category manager Paul King, who attended the event (virtually) on behalf of the company alongside representatives from our partners, said: "Our submission was assessed against a number of elements including awareness, knowledge, partner selection, internal assessment, working together, value creation and staying together. I'm extremely proud of the work we have carried out alongside our lot delivery partners, and the award recognises the collective activity of our programmes over the last five years."

Sellafield Ltd supply chain director Susan Lussem added: "I'm delighted that Sellafield Ltd and its partners have once again shown that collaboration is key to the success of making strides to cleaning up our site. I'm looking forward to more successes in 2022."

Please click [here](#) for the full article.

Fusion energy record demonstrates powerplant future



Record results announced are the clearest demonstration worldwide of the potential for fusion energy to deliver safe and sustainable low-carbon energy.

Researchers from the EUROfusion consortium – 4,800 experts, students and staff from across Europe, co-funded by the European Commission – more than doubled previous records achieved in 1997 at the UK Atomic Energy Authority (UKAEA) site in Oxford using the same fuel mixture to be used by commercial fusion energy powerplants.

Please click [here](#) for the full article.

Nuclear Delivery Group discusses latest progress

The Nuclear Delivery Group has met to discuss progress.

The group spoke about the latest progress on the NIA's Roadmap to 2024 – where targets have been met (Nuclear Financing Bill and Rolls Royce entering GDA) and where there is future work to do (SMRs to deployment phase and another large-scale nuclear project to final investment decision) as well as spoke priorities for 2022.

Nuclear In The Headlines



Time to embrace the nuclear option: Coal's too dirty, gas too costly, wind and solar too unreliable. So why, asks ROSS CLARK, aren't we building more low-carbon atomic energy plants instead of closing them?

The Daily Mail

EU needs 'colossal' investment in new nuclear, says commissioner

World Nuclear News

Rolls-Royce's mini reactor plans move closer to reality

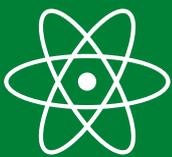
The Guardian

EU plans to label gas and nuclear energy 'green' prompt row

BBC News

TikTok Influencer 'Isotope' Is Stanning for Nuclear Energy

Vice



Key Nuclear Messages

- One large-scale station can power Cumbria 8 times over
- Nuclear has saved the UK six years' worth of emissions, 2.3 billion tonnes, far more emissions than any other source
- By 2030, we are losing stations that can power around 13 million homes
- The UK will need four times as much clean power, and 10 times as much clean energy, by 2050 to hit net zero
- Nuclear is the UK's only proven source of clean, always-on, emissions-free power, and the only source that can produce low-carbon power and low-carbon heat
- Nuclear is the most jobs-rich form of low-carbon energy: a large-scale project can sustain around 70,000 high-skilled, well-paid jobs

Get In Touch With Me **Trudy Harrison MP for Copeland**



A huge thank you to each of the fabulous companies and organisations that have contributed to this update.

If you would like to feature in future issues, please get in touch with me using the email below.



Main Street, Bootle, Cumbria, LA19 5TF
Trudy.Harrison.mp@parliament.uk
01229 718 333 / 020 7219 4002
www.TrudyHarrison.co.uk