

Meeting: Nuleaf Steering Group
Date: 11th September 2024
Item: 5
Subject: Updates on national developments in radioactive waste management
Author: Philip Matthews



Introduction:

This paper updates members on recent developments in radioactive waste management and NDA operations. It covers:

- NDA Group update;
- UK and Devolved Government reports;
- International news;
- Regulatory news;
- Nuleaf update; and
- New nuclear and fusion reports.

Recommendation:

That members offer their views on the location of the 2025 Nuleaf Annual Gathering.

1. NDA Group update

1.1 Nuleaf continues to participate in the **Strategy 5 Development Group (S5DG)**, tasked by the NDA with developing a new 5-year Strategy. The Group continues to review sections of the draft document, and a process is now underway to develop an Integrated Impact Assessment (IIA) of the Strategy.

The Executive Director also participated in a **Site Decommissioning and Remediation (SDR) Theme Overview Group (TOG)** meeting on the 4th September. A verbal update will be provided to the meeting.

1.2 The NDA's **Stakeholder Summit** will take place on the 17th and 18th September in the Radisson Blu Hotel Manchester Airport, with the theme of 'creating meaningful conversations.'

Nuleaf's Executive Director has been invited to speak as part of a panel discussion on developing partnerships. Members have been sent registration information but it, and the full agenda, is available here¹.

1.3 The NDA has published its **Group Sustainability Report 2024**², providing an overview of the progress it is making in support of the United Nation's 17 Sustainability Goals, covering economic, social and environmental issues.

Achievements noted in the report are that the NDA Group has:

- decommissioned 22% of buildings to date.
- reduced scope 1 and 2 carbon emissions by 34% since 2019/20.
- recruited 665 apprentices in the last two years and has over 470 graduates in its programmes as part of a £45 million annual investment in early careers.
- diverted more than 95% of conventional and non-radiological waste last year, with an aim of zero landfill disposal by 2035.
- invested £50 million of socio-economic funding over 4 years.

1.4 Nuclear Restoration Services (NRS) has published its **Socio-economic funding report 2023-24**³. The paper outlines how the £1million plus allocated to supporting the Magnox sites was allocated. By far the largest grant was to Menter Mon, who will receive £500,000 to help support their community development work in North Wales. The report claims that every £1 invested by NRS and the NDA leveraged another £10.47 in match funding.

1.5 On the 8th of August the NDA announced that it was seeking a strategic partner to turn the **Chapelcross** site into a green energy hub; and also unveiled a Masterplan for the 210Ha site.

The plans are supported by up to £15.3 million from the Scottish and UK Governments. NDA Chief Executive David Peattie commented '*Our ultimate aim is to free up our land for reuse, delivering benefit to local communities, the environment and the wider economy – the green energy hub will enable us to deliver this at Chapelcross.*'

1.6 The NDA has announced research investment of £30 million into new techniques designed to deliver safe, sustainable and cost-effective decommissioning⁴. The funding will go to 7 consortia involving a range of private companies, UK universities and laboratories along with Small and Medium Enterprises (SMEs).

1.7 Nuclear Restoration Services (NRS) has received planning permission to demolish the turbine hall and annexe at the **Sizewell A** site⁵. Senior Project Manager Wendy Heath commented '*It will be a major skyline change for the community and clear an area the size of a professional football pitch for future use by March 2025.*'

¹ [NDA Stakeholder Summit 2024 - idloom.events](https://www.idloom.com/events)

² <https://www.gov.uk/government/publications/nda-group-sustainability-report-2024>

³ <https://www.gov.uk/government/news/nrs-celebrates-community-growth>

⁴ [NDA invests £30million in cutting edge research and innovation - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/nda-invests-30-million-in-cutting-edge-research-and-innovation)

⁵ [Sizewell A demolition project approved - Nuclear Engineering International \(neimagazine.com\)](https://www.neimagazine.com/news/sizewell-a-demolition-project-approved)

2. UK and devolved Government reports

2.1 The newly elected Labour Government has maintained the structure of Government departments, meaning that the Department of Energy Security and Net Zero (DESNZ) continues to be the sponsor for all aspects of nuclear policy. The **Rt. Hon. Ed Miliband MP** has been appointed Secretary of State with **Lord Hunt** the Minister responsible for nuclear and individual planning decisions⁶. As Lord Hunt does not sit in the House of Commons, Michael Shanks MP will speak on nuclear matters in the chamber.

2.2 A key commitment of the new Government is to establish **Great British Energy** (GBE) as a publicly owned energy company to deliver decarbonisation of the grid by 2030. A Bill has already been introduced in Parliament. The founding statement⁷ commits GBE to engagement with local authorities and states that the Government is exploring how GBE can align with **Great British Nuclear (GBN)**.

3. International news

3.1 The International Atomic Energy Agency (IAEA) has launched a Centre of Excellence for Safeguards and Non-Proliferation at the Capenhurst site in Cheshire. The site will enable the development and testing of nuclear verification technologies and also train practitioners. It is a collaboration between the IAEA, Urenco (owned by the governments of the UK, Germany and the Netherlands) and the US Government⁸.

4. Regulatory news

4.1. **Sellafield Ltd.** has issued an apology after pleading guilty to charges related to cybersecurity failings that were brought by the Office for Nuclear Regulation (ONR). The ONR has stated that it will not provide details of the offences ahead of sentencing, which is now expected in September. The Guardian newspaper, which reported on cybersecurity issues at the site in late 2023, has detailed a range of alleged failings⁹.

4.2 The Office for Nuclear Regulation (ONR), the Environment Agency and Natural Resources Wales (NRW) have announced that **Holtec International's** Small Modular Reactor (SMR) design¹⁰ has successfully completed Phase 1 of the Generic Design Assessment (GDA). The process allows the regulators to begin assessing the

⁶ <https://www.gov.uk/government/ministers/minister-of-state-minister-for-energy-security-and-net-zero>

⁷ <https://www.gov.uk/government/publications/introducing-great-british-energy>

⁸ [IAEA Centre of Excellence launched at Capenhurst : Regulation & Safety - World Nuclear News \(world-nuclear-news.org\)](https://www.world-nuclear-news.org/IAEA-Centre-of-Excellence-launched-at-Capenhurst-Regulation-Safety)

⁹ [Sellafield apologises after guilty plea over string of cybersecurity failings | Nuclear waste | The Guardian](https://www.theguardian.com/environment/2023/oct/12/sellafield-cybersecurity-failings)

¹⁰ [Holtec International's Small Modular Reactor completes first step of design assessment | Office for Nuclear Regulation \(onr.org.uk\)](https://www.onr.org.uk/news/2023/12/01/holtec-smr-completes-gda)

safety, security, safeguards and environmental aspects of new reactor designs before site-specific proposals are brought forward.

The **Rolls Royce** SMR design completed Phase 2 of the GDA process in July and has now moved to the third and final phase of the assessment¹¹.

5. Nuleaf update

5.1 The consultancy work on stakeholder engagement that Nuleaf has commissioned is progressing well. Following discussion with members at our Annual Gathering, the consultants (Steve Smith and Doug Bamsey) have engaged with organisations within the UK and a number of other countries to identify examples of good practice. They will report on progress and host another discussion with members at this Steering Group meeting.

5.2 Nuleaf is supporting the recruitment of a Co-ordinator for our sister organisation in Scotland, the **SCCORS (Scottish Council Committee on Radioactive Substances)**. This role is being offered initially as a 12-month secondment, with 3 days working for SCCORS and one day per week supporting Nuleaf's policy work. Details of the post have been circulated to members. The closing date for applications is the end of this week (13th September).

5.3 Nuleaf's will be sending a delegation to the International Atomic Energy Agency (IAEA) **Technical Meeting on Strengthening Local Stakeholder Engagement**, being held in Vienna on the 16th to 20th October. We have been an active participant in the IAEA's previous engagement events, and this year we have been able to provide funding for a number of our members to attend.

Nuleaf will also be sending a delegation to the **GMF General Assembly** meeting in Salamanca on the 8th and 9th October. The Group of Municipalities with Nuclear Facilities (GMF) is a network of nuclear host communities stretching across the continent. The meeting will include presentations from member countries, a focussed discussion on the situation in Spain, and a visit to a nuclear fuel fabrication site.

A presentation on both events will be made to the December Steering Group.

5.4 A successful and well attended seminar with Great British Nuclear (GBN) took place on the 18th July, online. A note of the meeting, held jointly with NNLAG (New Nuclear Local Authority Group), is contained in Appendix 1.

5.5 Following a successful Annual Gathering in Llandudno, held in June, consideration is being given to the venue for the 2025 event. As the three

¹¹ [Rolls-Royce SMR progresses to final step of UK assessment : Regulation & Safety - World Nuclear News \(world-nuclear-news.org\)](https://www.world-nuclear-news.org)

Gatherings thus far have been located in Somerset, Cumberland and North-Wales, it would seem appropriate to hold the next event in South-East England.

Two potential locations are under consideration:

Sizewell/Suffolk – the Sizewell site has a decommissioning reactor (A), the UK's only operational Pressurised Water Reactor (PWR) and a dry spent fuel store. It is also the proposed site of a new large-scale reactor (Sizewell C).

Dungeness/Kent – the site has two closed reactors (Magnox and AGR) located within a sensitive Ramsar/SSSI site. Socio-economic development in the area is being driven by the innovative Romney Marsh Partnership and there is also interest in new nuclear at the location, supported by the District and County Council.

Next year also marks the 20th anniversary of the founding of Nuleaf and an event to mark this is under consideration. There may be scope to host such an event as part of the Gathering, for example with a meeting and dinner in either location or in London followed by a site visit to Sizewell or Dungeness the next day.

Members are invited to offer their thoughts on these proposals.

5.6 The information pages on Nuleaf's website have been reviewed and updated to reflect the changes within NDA and other developments such as the launch of the new UK Policy. A refresh of Briefings and Policy Documents is now underway, and a new Briefing on the Decommissioning and Radioactive Substances Policy is in preparation.

6. New nuclear and fusion reports

6.1 The new Labour Government has announced up to £5.5bn of support for Sizewell C¹², with the aim of *'providing certainty and ensuring the project has access to the necessary financial support to remain on track.'* The announcement came as the new Government reaffirmed its commitment to the project.

6.2 A Manchester-based company, Circular Refining and Products, has unveiled plans to build small modular reactors (SMRs) on an industrial estate in Deeside, north Wales. The proposal is to construct a 100MWe nuclear plant alongside a 100Mwe electrolyser to produce hydrogen. The initial phase will see a 20Mwe reactor and equivalent sized electrolyser built. The company plan to submit a pre-planning application to Flintshire Council to see if it is a project they would support; and to seek a nuclear license from ONR.

¹² [Government unlocks up to £5.5bn for nuclear power subsidy scheme - BBC News](#)

The company claim that the production of 'ruby' hydrogen has a significantly lower carbon footprint than the fossil fuels it would replace. If approved, the site could be operational by 2028, creating between 50 and 150 jobs¹³.

6.3 It was announced on the 21st August that South Gloucestershire and Stroud College (SGSC) has sold its 40-acre science park site at the former Berkeley nuclear power station for £6.5 million¹⁴.

The land has been purchased by Chiltern Vital Group (CVB) who are interested in the development of Small Modular Reactors (SMRs) and the creation of a low carbon energy 'super-cluster'. An announcement from Government on a technology provider to develop new nuclear at Oldbury is expected soon. The land is already host to a University Technical College run by SGSC – this is not being sold as part of the agreement and will continue operating as before.

¹³ [Plans for nuclear park in Deeside to produce 'ruby' hydrogen | The Leader \(leaderlive.co.uk\)](https://www.leaderlive.co.uk/news/1711111/plans-for-nuclear-park-in-deeside-to-produce-ruby-hydrogen/)

¹⁴ [Former Berkeley power station site sold for £6.5m - BBC News](https://www.bbc.com/news/health-67811111)

Appendix 1: Great British Nuclear Joint NNLAG and NuLeaf Virtual Meeting

Thursday July 18th, 2024, 1pm

1. Attendees

Name	Council
Cllr. David Moore - Chair	Cumberland Council and Chair Nuleaf
John McNamara	Great British Nuclear (GBN)
Guy Esnouf	Great British Nuclear (GBN)
Philip Matthews	Nuleaf
Chloe Atkinson	Nuleaf
Michael Moll	Chair NNLAG and Suffolk County Council
Cllr. Richard Rout	Suffolk County Council
Angharad Crump	Anglesey County Council
Cllr. Neville Evans	Anglesey County Council
Brendan Sweeney	Former NuLeaf Chair, Barrow in Furness
Cllr. Joesph Ghayouba	Cumberland Council
Iain Irving	Cumberland Council
Jonathan Cook	Cumberland Council
Andrew Seekings	Cumberland Council
Heather Morrison	Cumberland Council
Eleanor Godesar	Dorset Council
Bethany Rance	East Suffolk Council
Naomi Goad	East Suffolk Council
Charlotte Rushmere	Essex County Council
Terry Burns	Essex County Council
Cllr. Paul Thomas	Folkestone and Hythe Council
Cllr. Jim Martin	Folkestone and Hythe Council
Rod Lean	Folkestone and Hythe Council
Deb Amartya	Gloucestershire County Council
Merixell Martell	GMF Europe
Cllr. Mark Cassidy	Lancaster City Council
Edward Wright	Lincolnshire County Council
Matthew Winslow	Maldon District Council
Richard Outram	Manchester City Council
Cllr. Mike Caswell	Somerset Council
Louise Martin	Somerset Council
John Burton	Somerset Council
Joanna Whitehead	Somerset Council
Cllr. Chris Davies	South Gloucestershire Council
Gillian Ellis-King	South Gloucestershire Council
Jon Severs	South Gloucestershire Council

Cllr. Chris Davies,	South Gloucestershire Council
Isaac Nunn	Suffolk County Council
Ross Walker	Suffolk County Council
Cllr. TJ Haworth-Culf	Suffolk County Council
Steve Smith	Nuleaf consultant
Rachael Whaley	Westmorland and Furness Council
Craig Taylor	
Ayse Ozcan	
Roly Arbon	Suffolk County Council – <i>Minutes</i>

2. Welcome and introductions

Welcome from Cllr. Richard Rout – Member responsible for Nationally Significant Infrastructure Projects (NSIPs) at Suffolk County Council, the current chair of NNLAG.

Local Authorities are important stakeholders in nuclear development.

High attendance shows level of interest local authorities have in the development in new nuclear.

Key that developers engage fully with local authorities and host communities to achieve the best outcomes possible especially in respect of socioeconomic issues.

NNLAG looks forward to more detailed discussions going forward.

Welcome from meeting Chair, Cllr. David Moore.

Positive that GBN is engaging with Nuleaf and NNLAG.

People attending today from all over the country and from Europe, which demonstrates the interest in new nuclear.

3. GBN Presentation

John McNamara, Head of Stakeholder Engagement presented an update from GBN.

Looking back at key milestones achieved since GBN started. Two sites have now been purchased at Oldbury and Wylfa.

Currently awaiting whether the change of government will affect anything currently planned for GBN.

GBN was set up to remove blockages preventing new nuclear and speeding up and derisking projects coming forward.

Simon Bowen Executive Chair of GBN was asked by Government to write a report on removing blockages to new nuclear.

Report had 25 recommendations, which are wide ranging and focuses on how to get Small Modular Reactors (SMRs) moving, what we do with future Gigawatts (GW) and management of Advanced Modular Reactors (AMRs).

Also addresses things such as skills, supply chains, nuclear fuel and UK's resilience.

GBN formally set up with the initial aims to take forward competition for the best SMR designs for the UK and will also buy sites and match SMR designs up with sites.

GBN currently working through the recommendations of the Bowen report.

Starting point was selecting six reactor designs to take part in the competition launched in October 2023.

Six vendors given until July-2024 to submit tenders. Timeframe challenging although vendors already in position to sell reactors when competition commenced.

Upset some developers of newer technologies, but key goal of government was that SMRs could be developed at speed.

GBN was set up in July 2023 and managed to be in the position to buy two sites by March 2024 – Oldbury and Wylfa, which it now owns.

Noted that both locations include land close to Magnox reactors which are now being decommissioned.

Initially GBN have only been looking at sites in EN-6 National Policy Statement (NPS).

Originally eight sites identified in EN-6, however Hinkley Point C now being developed, and Sizewell C is expected to receive confirmation of the Financial Investment Decision (FID) later in 2024.

That leaves six sites to be considered and three landowners involved.

Plan is to have two fleets of SMRs, but GBN could still look at smaller sites outside of those identified in EN-6 but have potential to house smaller numbers of SMRs.

As Government directive is to work at scale and pace, GBN are concentrating on sites where output can be maximised.

EN-7 currently under consultation which has a change of focus from EN-6 to promote flexibility.

Will also consider non-nuclear sites including industrial sites which could benefit from nuclear energy.

Strategy for AMRs also being looked at by the Department. For example, the United States developing small reactors to power data centres.

SMR initial tender deadline July 2024.

Five companies remaining after one pulled out – Rolls Royce, Westinghouse, Hitachi, Holtec and NuScale.

All made deadline and put in substantive initial tenders.

Evaluating the tenders will be a considerable process with the tender document itself running to some 2000 pages.

Further clarity required from the new government on how GW is taken forward and what their priority is on new nuclear.

GBN is growing quickly from 35 employees in September 2023 to 210 currently employed with UK nuclear industry coming together to resource GBN.

Guy Esnouf continued discussing the objectives of GBN.

GBN goal is to ensure that new nuclear can be delivered, using learning from the past to speed up the process.

Government required to be involved to reduce project risk for new nuclear.

GBN looking at SMRs as they can be delivered faster – by the 2030s – with FID by 2029.

Recognising the role nuclear will play decarbonising the grid from 2030-2050.

4. Questions

1a. Cllr. Joesph Ghayouba – Cumberland Council

Sellafield where he is based is currently owned by Nuclear Decommissioning Authority (NDA) – how are discussions going regarding the land purchase as it's understood that NDA are not willing to give up the land?

Guy Esnouf - GBN

UK need to balance risk and remediation with new power generation. Discussions over land are still ongoing which will lead to recommendations to the new government but still needs some more time.

1b.

Will new nuclear impact Sellafield?

John McNamara - GBN

NDA are still currently the landowners, so GBN needs to be careful to comment on use. Discussions are ongoing between two government bodies (GBN and NDA) and currently there is a need to fully understand the amount of land Sellafield requires for remediation, which is a changing issue.

Sellafield looking at techniques and innovation and will also need to construct new facilities for decommissioning. Once land use has been established, then GBN can consider whether there is enough land remaining for SMRs.

2a. Cllr. Paul Thomas – Folkestone and Hythe Council

Is there an indicative timescale on when the EN-7 consultation will conclude?

Guy Esnouf – GBN

Not yet. Feedback is currently being reviewed and outcome likely to be later in the year after September. Thinking has changed regarding sites and criteria compared to EN-6.

2b.

What discussions have GBN had regarding the development of Dungeness?

Guy Esnouf - GBN

As the Final Investment Decision is needed by 2029, GBN wanted to build on work which had already taken place regarding potential sites, hence why EN-6 sites were looked at first. This does not mean that other sites will not be considered in the future, just they are not being looked at right now.

3a. Jonathan Cook – Cumberland Council

Novel fuel types are coming forward, but are GBN naturally biased towards traditional fuel types?

Guy Esnouf – GBN

Initially, GBN is currently looking at understanding the sites and at using fuels which we understand now. But this is just the start. There are interesting other fuels coming forward and another consultation is looking at this.

3b.

Noted that regarding the sites purchased and SMR developments, presumably GBN's thinking is around the right development for the right sites, rather than just using what is available?

Guy Esnouf - GBN

For the SMT selection, GBN is looking at two different reactor types. This is protect resilience, legal challenge, financial issues etc.

Having two sites now does not end GBN's interests on other options.

4. John Burton – Somerset Council

How is GBN going to work with Great British Energy (GBE) as there could be the potential for crossover and duplication?

Guy Esnouf - GBN

Not sure yet. GBN and GBE appear to have similar goals.

GBE is being set up to move projects on, but there is a difference between renewable and nuclear development. Expecting to see something soon regarding the potential relationship.

5a. Iain Irving

To hit timescales to place contracts next year on identified sites, does it have to be sites in EN-6 that are involved?

Guy Esnouf - GBN

Not necessarily. GBN starting with EN-6 sites, but it does not end there. GBN needs to consider things like potential land and water requirements for the technologies coming forward, and the site needs to be confirmed to complete the contracts with SMR vendors. EN-6 sites have an advantage of course due to their allocation in EN-6.

John McNamara - GBN

GBN is looking to match sites to the technology. Technology coming forward are scaled down versions of those which we know already works. Different outputs and technology involved in proposals, but all will be classified as SMRs.

5b.

Was Megawatt (MW) output specified in the competition?

John McNamara - GBN

SMRs are normally classified as having an output of 300-400MW output. However, Rolls Royce have a design which generates c500MW.

SMR – 300-400MW – Rolls Royce have a c500MW design. GBN categorised and provided standards that tenders would need to meet.

5c.

Are the three vendors which are unsuccessful precluded from future competitions?

Guy Esnouf - GBN

No the vendors would just be excluded from this tranche of funding. Interest exists from other vendors and the intention is that the government financial input into new nuclear projects will reduce over time.

GBN will set up development companies locally who will partner with the SMR manufacturer.

6. Cllr. Neville Evans – Anglesey County Council

On a discussion on clean energy seen on BBC Parliament, the new MP for Anglesey noted that there was no mention of nuclear in the Kings speech. Is Anglesey still being considered for development?

Guy Esnouf - GBN

Everything we have heard is positive and GBN expecting to receive further information from the new government around new nuclear in due course.

7. Chris Davies – South Gloucestershire Council

Is the information contained within this meeting is in public domain?

Guy Esnouf - GBN

Confirmed that information is in the public domain.

8. Cllr. Joesph Ghayouba – Cumberland Council

If Moorside is overlooked for development due to Sellafield retaining the land, is GBN doing anything to push for an answer regarding the land? Understands that Sellafield does not yet have a true picture of the waste which will be generated so it is difficult to know how much space is required.

Guy Esnouf - GBN

It is key to exercise caution in the decisions made around sites and technology. Government will decide the future of Sellafield, not NDA, Sellafield or GBN. The role of EN-7 is to get Britain building, which allows parties to put forward land for consideration for new nuclear. GBN also considering what's next beyond current sites held.

9. Cllr. David Moore – Cumberland Council

How can local authorities get involved in the process? Discussions between NDA and GBN do not take into account the interests of the community and the potential engagement local authorities can have. It feels as though local authority and community aspirations are not being picked up.

Guy Esnouf - GBN

The Department is currently preparing for EN-7 which will change the balance to allow access for other sites to be identified for new nuclear.

10. Jonathan Cook – Cumberland Council

How is risk being managed on projects to encourage new financiers to come in?

Guy Esnouf - GBN

The principle is Government is investing money to encourage private money. As more SMRs are built, the risk decreases, and private confidence will grow – which will see private funding coming in earlier in the projects.

John McNamara - GBN

If two SMRs vendors build factories to produce six SMRs, they are creating an industrial process to construct further SMRs which could open up opportunities for SMRs on smaller sites without GBN being a partner. The vendors could start looking to partner with other developers and SMRs could be exported in the future.

11. Gillian Ellis-King – South Gloucestershire Council

Are GBN waiting for direction from the new government on sites and as a result will not engage with individual sites, such as Oldbury at this stage?

Guy Esnouf - GBN

GBN are waiting for the new government to confirm their plans, and everything we have heard so far is positive. The new government are keen on new nuclear, but need to establish whether they will want to change anything from the previous government's plans. There is still the question on whether another large-scale nuclear site might be planned. GBN plans to continue to discuss Oldbury and eventually look at which developer which will be matched to the site.

John McNamara - GBN

Looking to hold early-stage discussions with local authorities and stakeholders once the new government confirms their agenda.

Guy Esnouf - GBN

Update expected shortly. It is clear that the government wants to work at pace.

12. Heather Morrision

Looking at specifics, Moorside has other confidential development arrangements under discussion which may reduce the availability of land for SMRs.

Final Comments

Cllr Paul Thomas

Essential that GBN directive is that new nuclear can be delivered. Nuleaf has had presentations on SMRs and AMRs but noted the bottleneck exists with the Office for Nuclear Regulation (ONR).

Guy Esnouf - GBN

Looking at the approvals regulations, biggest bottleneck is not ONR, however there are other things in the planning system which could cause issues. Environmental Assessment for Sizewell C is 40,000 pages. Addressing climate change should be a fundamental element of the planning system. ONR have been supportive in discussions and would not be doing their job if they were not asking tough questions.

Cllr. David Moore

Expressed the importance of engagement between GBN and host communities and local authorities and wishes to see ongoing collaborative work between Nuleaf, NNLAG and GBN.