

Report of a Pilot Inspection
Northern Ireland Electricity Networks Limited

November 2023



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1. INTRODUCTION

A. BACKGROUND INFORMATION

Northern Ireland Electricity Networks Limited (NIE Networks) owns the electricity transmission and distribution networks in Northern Ireland (NI) and is the distribution network operator. It transports electricity to every home, business and farm in NI, to over 910,000 customers.

NIE Networks is a wholly-owned private subsidiary of the Electricity Supply Board (ESB)*, operating as an independent company within ESB, with its own board of directors, executive team, staff and also, separate regulation*. Of the board's six directors, four are non-executive directors. The company is led by an executive team overseeing the development of the network to meet current and emerging energy needs. The executive team comprises of a managing director; an executive director, People and Culture; four directors overseeing Customer Delivery, Customer and Market Services, Finance, and Network Assets; a Chief Transformation Officer; and the company secretary. The company employs over 1400 staff with a wide range of technical and business skills.

Throughout the report, where text is accompanied by an asterisk, this indicates that additional information can be found in Appendix 2: Notes.

NIE Networks is contracted by the Department for the Economy (DfE) to deliver the ApprenticeshipsNI 2021 programme (the apprenticeships programme) in the professional and technical (P&T) area of electrical power engineering. Within this P&T area, apprentices follow a number of specialist pathways: overhead lines; plant maintenance electrician; underground cable jointing; and engineering planning. The NIE Networks' apprenticeships programme is award-winning and the only Institution of Engineering and Technology accredited apprenticeship programme in NI.

The delivery of its apprenticeships programme is managed by a technical training manager, supported by a quality assurance and training development officer, along with apprentice co-ordinators, a senior instructor, and an apprenticeship safety engineer. This management team report to the executive director, People and Culture.

The company's headquarters are in Belfast, with its practical training for the apprenticeships programme delivered from its technical training centres located in Ballymena, Campsie and Craigavon. The practical training is provided by a team of 11 specialist training engineers/instructors, with a dedicated team of administration assistants and a human resource advisor to support the apprentices and training staff. Since 2008, the Northern Regional College (the College) has been sub-contracted to deliver the technical certificate of NIE Network's apprenticeships framework, and also the essential skill of information and communication technology (ICT) at level two.

At the time of the pilot inspection in November 2023, 66 apprentices were registered across NIE Networks' four specialist pathways of electrical power engineering: 34 were registered at level two and the remainder were registered at level three. Of these, 16 (eight at level two; eight at level three) were plant maintenance electrician apprentices; 17 (nine at level two; eight at level three) were overhead lines apprentices; and 23 (18 at level two; the remaining at level three) were underground cable jointing apprentices; and ten were engineering planning apprentices at level three.

All data used for the inspection and presented in this report has been supplied and verified by NIE Networks at the time of the pilot inspection.

B. VIEWS OF THE APPRENTICES AND STAFF

The Education and Training Inspectorate (ETI) issued online confidential questionnaires to apprentices and staff in advance of the pilot inspection.

Fifty-two (79%) of the apprentices responded. They all indicated that the programme is interesting and challenging, they have been provided with clear guidance and rules around acceptable and unacceptable behaviours when learning, and the classroom and workshop training sessions are well taught.

The inspectors also met and spoke with a sample of the apprentices during their training sessions, in a number of focus groups, and during workplace visits. They all spoke very appreciatively and positively about how they benefit from the regular contact they have with the apprentice coordinators. They also spoke about how they are given good feedback on their progress and are well supported in directed training and during on-site training.

Ninety-four percent (17 of 18) of the staff directly involved in delivering the apprenticeships programme day-to-day completed the online confidential questionnaire. They indicated that the company supports them well to deliver the apprenticeships programme, including through access to appropriate ICT equipment and learning resources and regular feedback about their work.

The inspectors also met and spoke with staff, including training staff in a focus group. They all spoke about how they are well supported to develop and maintain their occupational skills and wider competencies required to successfully deliver the apprenticeships programme. They reported that they have a productive and mutually respectful working relationship with the College staff, and also that they have good working relationships with the apprentices.

C. THE PROCESS OF INSPECTION

During the pilot inspection and informed by NIE Networks' quality improvement planning and underpinning self-evaluation processes, the ETI inspectors worked alongside the company to consider how well it:

- has identified and articulates its vision;
- prioritises actions to achieve the vision;

- overcomes the main challenges it faces;
- monitors and reviews progression to identify, celebrate and embed success; and
- grows and develops an inclusive community of learning.

The NIE Networks' apprenticeship programme for electrical power engineering and the arrangements for child and adult protection were evaluated.

2. SUMMARY OF KEY FINDINGS

- NIE Networks highly values the apprenticeships programme. It is regarded as strategically important to its workforce planning and development, to ensure a balanced complement of skilled operatives, technicians, and engineers is in place to meet current and emerging business needs. The company is committed to a culture of “*growing talent from within*” and widening access to under-represented groups.
- The recent, comprehensive review and ongoing development of the curriculum for the apprenticeships programme ensures the curriculum is holistic and responsive, with provision that is contemporary and aligned well to the skills needs of its workforce.
- The well-planned delivery of the directed training sessions, together with systematic tracking and monitoring of key milestones and achievements, enables the apprentices to make well-paced, appropriate progress in their learning and in the development of skills and competencies necessary to fulfil their job roles safely and confidently.
- A well-considered, comprehensive range of health and wellbeing events and initiatives provide the apprentices with ready access to services that meet well their various support needs and promote healthy lifestyles and mental resilience.
- NIE Networks' inclusive ethos and supporting policies impact positively on widening access to prospective apprentices from under-represented groups and ensure that specialist provisions are in place for those with additional needs. These provisions, which include associated support and outreach programmes, contribute to equity in the company's workforce.
- A high priority is given to developing the apprentices' digital skills to build their capacity for working in a digitalised learning and working environment; all of the apprentices are provided with a personal digital tablet to enable them to access online learning resources and complete electronic assessment portfolios.

- There is a strong focus on supporting the apprentices to achieve to their potential, including through their development of key transferable skills* and provision of opportunities to progress to further and higher education. Over the last two years, the apprentices who completed their training all achieved the full apprenticeship framework. All of the apprentices were retained by the company.
- A well-structured quality improvement plan captures the strengths and identified actions necessary for continuous improvement, with robust processes to track and review progress. Although the training staff participate readily and regularly in peer observations of professional practice, the outcomes of the observations are not used systematically enough to inform improvement planning in learning, teaching and training.
- Through its robust quality improvement planning processes and well-considered investment in training resources and facilities, NIE Networks has ensured that the apprentices are provided with industry-standard practical skills training, relevant day-release vocational education provision, and well-structured on-site training and assessment, which are effective in supporting their learning and development.
- Well-established links and partnerships with other educational providers, a range of external partners, agencies and employers, together with a programme of staff professional learning and an apprentice consultative forum, ensure that a vibrant and purposeful community of stakeholders actively review and seek to improve the provision for the NIE Networks' apprenticeships programme.

Area for further action:

- A more systematic approach to improvement planning in learning, teaching and training is required, as part of the continuous development of the pedagogy for all teaching staff involved in the delivery of the programme; the outcomes of the peer observations should be used effectively to inform this approach.

3. MAIN REPORT

A. SETTING THE VISION

NIE Network's company-wide vision "*delivering a sustainable energy system for all*" is informed by a commitment to meet the Government-led future targets for sustainable energy and reduced carbon emissions, and is clearly aligned to the NI economic and skills policy position*. This vision is underpinned by the company's corporate values which are "*Safety-, People-, Customer-, Commercially-, and Future-focused.*"

The apprenticeships programme it provides is very much at the foundation of NIE Networks' commitment to a culture of "*growing talent from within*" as part of its people strategy and the realisation of the company-wide vision. A significant proportion (43%) of the company's current senior managers themselves started as apprentices of the company.

The quality improvement processes for its apprenticeships programme are well embedded. Well-targeted action planning is used to good effect to address the appropriately identified areas for improvement through self-evaluation. These include: the ongoing development and review of level two and level three qualifications, and the assessment and embedding of transferable skills; and the continued development and training of all staff, including through a continued process of sharing good practice within the company, and with other partners and stakeholders, including utility companies. The morale of the staff delivering the apprenticeships programme is very positive; there is a collective commitment to delivering a highly effective apprenticeship programme which realises the growth of a talented workforce to meet the company's current and future business needs.

B. IMPLEMENTING AND IMPROVING TO ACHIEVE THE VISION

The curriculum for the apprenticeship programme is holistic, responsive, and matched well to the company's current and emerging business needs, and associated workforce planning and development. The well-structured planning sets out blended programmes of on-site and directed training at both level two and level three which are delivered by highly experienced and skilled instructors, lecturers and workplace supervisors with industry standard expertise and competence. There are clear progression pathways to further and higher education and continued employment.

Twenty-two of the apprentices are completing a level two/three framework, of which nine are overhead lines apprentices, eight are plant maintenance electrician apprentices, and the remaining are underground cable jointing apprentices.

A standalone pilot level two framework was introduced in September 2022. Of the eight apprentices registered at the outset, six are underground cable jointing apprentices, and the remaining are plant maintenance electrician apprentices. They are due to complete in September 2024 and a further 26 apprentices were recruited to this pilot in September 2023. Twelve of the 26 are underground cable jointing apprentices, nine are overhead lines apprentices and the remainder are plant maintenance electrician apprentices.

The key objectives of the pilot level two framework have been well-considered. The intent is to: meet better the practical occupational skills demands in developing the electricity network; and widen access to the apprenticeship for applicants with an appropriate GCSE grade profile for this area of work. Units for the pilot level two framework are matched well to the range of jobs in which the apprentices are employed. An appropriate progression pathway to level three is available for the 34 apprentices involved in this pilot, including the opportunity to apply for both further and higher education courses of study.

A level three engineering planning pathway has been established in response to the business needs of the company, namely demand for technical and digital skills in relation to utilising and embedding geographic information systems (GIS) and associated processes within the company's workstreams. There are currently ten apprentices on this pathway.

In anticipation of the operational end in March 2024 of the current level three electrical power qualification, which is part of the level three framework, the approval by the regulator of a replacement qualification* is in the final stages; it is projected to be accredited for use early in 2024, with apprentices able to collate evidence of occupational competency from May 2024 onwards.

At both level two and level three, all of the apprentices demonstrate good or better standards of work, both in the directed training and on-site. They are developing very good practical occupational skills and display a strong disposition for learning and development of technical skills and professional competencies. They have a clear focus on safe working practices and a good awareness of the importance of ensuring their own safety and that of those working around them. Specialist support for the development of presentation skills is provided for the apprentices. Training provided for the apprentices has supported them in the development of wider life skills, for example in dealing with difficult customers, resilience, and first aid.

All of the sessions observed were effective. They were well planned, with an appropriate range of teaching and training approaches used to engage the apprentices to good effect in their learning. The apprentices demonstrated a good understanding of and aptitude for the practical training tasks being undertaken. At times however in theory-based sessions, apprentices were overly passive. The apprentices do respond readily and thoughtfully to questioning to affirm their learning but there were missed opportunities for them to engage in groupwork, enquiry-led discussion, and problem-solving tasks. The workshop and practical training environments are very well equipped.

The workplace training and assessment processes are well planned, with a strong focus on the development of employability and transferable skills through on-site placements which are used to develop well the apprentices' skills in team working and in a customer-facing environment. The apprentices receive regular progress reviews from the training staff through the digital tablets provided, with effective use of real-time cloud-based recording, tracking and monitoring applications and ongoing communication. Regular apprentice progress review meetings provide the apprentices with an opportunity to discuss and resolve with their mentors any pertinent issues relating to their progress, in a timely and constructive manner.

The health and wellbeing of the apprentices is clearly a high priority, with a forum established and the provision of a wide range of initiatives which the apprentices can avail of. A calendar of events is highly effective in supporting well the promotion of healthy lifestyles, good mental health and ensuring that the apprentices retain a focus on their own safety and wellbeing, and that of the team around them.

C. BUILDING EQUITY

There is a clear focus on promoting inclusion and equality of opportunity within the company. As NIE Network's employees, the apprentices' views on diversity and inclusion are captured well through their engagement in a diversity and inclusion forum. There is also effective collaboration with outside agencies to support the company to effectively embed a culture of equality and inclusion.

The company's achievement in embedding a culture of inclusion was recognised at the NI Apprenticeships Awards event in March 2023 by a Special Award for Diversity and Inclusion, and the Silver Investors in Diversity Mark in May 2023. As a consequence of targeted recruitment strategies to increase the representation of females, 12% of the current year one apprentices are female.

Additionally, the company's entry requirements for the level two pilot were extended from a profile of a General Certificate of Secondary Education (GCSE) or equivalent of three GCSEs at grades C to A* to three GCSEs grades D to A*, including English, mathematics and a science, technology, engineering or mathematics (STEM) related subject. While the intent is to widen access to the apprenticeship for applicants, all of the 34 apprentices recruited to the pilot to date however have four or more GCSEs or equivalent at grades C to A*, including English, mathematics, and a STEM subject. Seven (21%) of these apprentices had a qualification which exempts them from completing the essential skill of ICT at level two.

Overall, of the current cohort of 66 apprentices, none required essential skills in literacy or numeracy. Fifty-three (80%) were identified on entry to the apprenticeships programme as needing to complete the essential skill of ICT at level two. Of these 53 apprentices, 24 were in year two at the time of the pilot inspection. They had all successfully achieved the essential skill of ICT at level two through the company's well-established and successful fast-track delivery model. The remaining 29 are year one apprentices. At the time of the pilot inspection, they were scheduled to undertake this essential skill in the second term of the academic year 2023/2024, using the same delivery model. As a consequence of the highly effective development of the apprentices' digital skills, they are well equipped to work in a digitally controlled environment.

The systematic planning for a holistic curriculum includes regular periodic skills gap analysis for each apprentice, with any necessary targeted support provided to address identified skills deficits. Additional support is provided for apprentices with significant barriers to training and development, to enable them to participate fully and to complete their apprenticeships programme successfully. For example, appropriate adjustments have been made to the teaching and assessment strategies and training for staff has included deaf awareness training.

D. EMBEDDING SUCCESS

Through NIE Networks' apprentice council and its apprentice employer engagement surveys, the apprentices' contributions to the development of the apprenticeships programme, and ways of working within the company are highly valued and impactful, fostering an equitable and inclusive working and learning environment.

All of the apprentices engage in educational outreach activities with post-primary schools, including careers events, the delivery of STEM activities, and support of pupils in the development of their interview skills. The apprentices are encouraged also to participate in activities which promote well team working and collegiality, such as fun days and sporting events.

Success is celebrated on the internal company intranet and social media platforms. The apprentices are recognised at the company's annual awards event. Awards include the company's apprentice of the year, the apprentice journey of the year, and the ambassador of the year. They are also rewarded through an apprentice bonus scheme. Teamwork, recognition and reward are favourably rated in responses to the company's internal engagement survey.

The retention rate for the current cohort of apprentices is high (96% for 2022/23). All nine apprentices from the 2021/2022 cohort successfully completed the full framework at level three and secured permanent employment with NIE Networks. A summative assessment panel at the end of the apprenticeships programme is used well to assure the training managers that the apprentices have the skills, knowledge, and competencies to progress to the next stage of their development.

The apprentices report the benefits of a range of training opportunities provided through outside agencies, which have for example, have supported them well in dealing with unconscious bias*. During 2023, NIE Networks was awarded the DfE Apprenticeship Award for Large Employer, the DfE Apprenticeship Award for Diversity and Inclusion, and the Chartered Institute of Professional Development (CIPD)* People Management Award for Best Apprenticeship scheme.

E. GROWING A COMMUNITY OF LEARNING

All of the staff delivering the apprenticeships programme are provided with ongoing and relevant continuing professional development opportunities, which includes for example the completion of assessor awards. The Certificate in Teaching qualification has been completed by the majority (64%) of the training engineers/instructors, with the remainder in the process of completing the qualification or scheduled to begin.

The training staff participate readily and regularly in peer observations of professional practice through a well-planned, structured process to enable professional reflection. The outcomes of the peer observations should be used effectively to inform a more systematic approach to improvement planning in learning, teaching and training, particularly to advance the continuous development of pedagogy.

There is a necessary focus on providing impactful and targeted continuous professional development in specialist occupational areas; this ensures the skills and technical development of the apprentices by the staff is to the appropriate industry standard. The training engineers/instructors maintain the currency of their occupational skills through, for example, their deployment on stand-by duties.

NIE Networks collaborates highly effectively with a range of external partners, agencies, and employers, including the College, ESB and NI Water* for the benefit of the apprentices. It also leads and contributes to a wide range of cross-function strategic groups and working parties, to develop new approaches in meeting the skills needs of the utility sector, with a particular emphasis on the development of sustainable energy use and distribution.

These partnerships inform the development of the curriculum to meet the needs of the industry, in line with emerging technological changes and developments. For example, at the time of the pilot inspection collaborative work with the Construction Industry Training Board Northern Ireland (CITB NI)*, the DfE and the Keir Group* is well-advanced on the introduction of a programme aimed at providing entry level training to the joint utilities sector. It is intended that this new programme will equip participants with the skills and knowledge to enable them to work across all four main utility sectors*, as well as attaining industry recognised certification and registration cards (CSR).

The apprentices have also benefited from the company's strategic partnerships which have resulted in the development and application of high voltage technologies in the transport services industry. This includes work on both the development of the electric vehicle charging network and of hydrogen powered public transport in the region.

F. CHILD AND ADULT PROTECTION

At the time of the pilot inspection, the arrangements for child and adult protection take full account of current policy and guidance.

4. GOING FORWARD

In a sector of high strategic importance, NIE Networks is a progressive and innovative company focused on delivering the growing electricity transmission and distribution needs of the region, driven by the emerging demand for new energy technologies. The design and implementation of its apprenticeships programme is a key element of its people strategy and the realisation of the company-wide vision. The apprenticeships programme very much demonstrates the company's commitment to a culture of "*growing talent from within.*" There is a very significant investment in the skills development, progression and career success of the apprentices. The staff delivering the apprenticeships programme work well as a team to provide quality training, along with good levels of support and care to ensure that the apprentices' individual needs and expectations are well met. To advance the continuous development of pedagogy, a more systematic approach to improvement planning in learning, teaching and training is required, informed by effective use of the outcomes from the peer observations.

The aspects of highly effective practice which should be shared more widely are:

- how its structured practical skills training, including the digital skills development of the apprentices equips them well to work in a digitally controlled environment; and

- how the focus on care and support has positively impacted on the health and well-being of the apprentices and their readiness to learn.

ETI will continue to work with NIE Networks which is well placed to take forward the area for further action detailed above and in the body of this report.

5. APPENDICES

APPENDIX 1: QUANTITATIVE TERMS

In this report, proportions may be described as percentages, common fractions and in more general quantitative terms. Where more general terms are used, they should be interpreted as follows:

Almost/nearly all	-	more than 90%
Most	-	75% - 90%
A majority	-	50% - 74%
A significant minority	-	30% - 49%
A minority	-	10% - 29%
Very few/a small number	-	less than 10%

APPENDIX 2: NOTES

Page 1 **Electricity Supply Board (ESB)*** - The ESB Group is licensed to build, operate, maintain and develop the electricity network in the Republic of Ireland.

separate regulation* - Its business activities are regulated by the Northern Ireland Authority for Utility Regulation (the Utility Regulator or the UR).

Page 4 **transferable skills*** - Transferable skills are a set of skills that can be built up over time, through education, work, volunteering, and life experiences. Transferable skills are things an individual is good at that are useful to employers across many different jobs and industries. For example, time management and organisation skills.

Page 4 **the NI economic and skills policy position*** - Including the NI Programme for Government Draft Outcomes Framework; the New Decade, New Approach Social Inclusion Strategies, 2020; the OECD Skills Strategy Northern Ireland, 2020; the Economic Recovery Action Plan 2021; 10x Economy - an economic vision for a decade of innovation, 2021; the NI Skills Barometer 2021; and the NI Draft Industrial Strategy 2030.

Page 6 **the regulator of the new qualification*** - The regulator of the new qualification is the Council for the Curriculum, Examinations & Assessment (CCEA).

Page 8 **unconscious bias*** - Unconscious bias is when judgments or decisions are made on the basis of prior experience, and the individual is not aware that they are doing so. Unconscious bias may lead to discrimination and stereotyping based on for example race, gender, sexuality, ability, or age.

Chartered Institute of Professional Development (CIPD)* - The Chartered Institute of Professional Development (CIPD) is the professional body for human resources and people development.

Page 9 **NI Water*** - NI Water* (Northern Ireland Water) is a government owned company, set up in April 2007 to provide the water and sewerage services in Northern Ireland.

Construction Industry Training Board Northern Ireland (CITB NI)* - Construction Industry Training Board Northern Ireland (CITB NI) is the Industry Training Board for construction in NI.

Keir Group* - Keir Group is a nationwide provider of infrastructure services, construction and property developments.

four main utility sectors* - Electricity, gas, water and sewerage.

The Education and Training Inspectorate

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