cigre Ireland | Next Generation Network



Annual Report 2025

Next Generation Network

The CIGRE Ireland Next Generation Network (NGN) initiative is dedicated to advancing the future of electrical power networks through cutting-edge research, collaborative events, and informative newsletters. By focusing on emerging technologies and fostering engagement among young professionals, the NGN plays a pivotal role in shaping the next generation of power systems.

It was established in 2018 under the CIGRE Ireland National Committee to support and connect early-career engineers, researchers, and students (typically aged 35 and under).

Since its formation, the network has grown steadily, bringing together a diverse community of individuals spanning from utilities, consultancies, manufacturers, academia, and system operators.

Stay Connected

CIGRE Ireland LinkedIn

CIGRE Ireland

Contents

Our team 4
Foreword 5
Events 2025 6
Reflections 2025 10
Looking Ahead 11

Our team

NGN Ireland is delivered by a volunteer committee drawn from utilities, consultancies, manufacturers, system operators, and academia, with strong support from the CIGRE Ireland National Committee. NGN committee members contribute to, event organisation and moderation, speaker engagement and international collaboration, managing communications and member outreach as well as representation of young professionals within CIGRE Ireland.

Our 2025 NGN Committee members:


Hamid Reza Shokrani
Finsbury Infrastructure


Robert Fenlon
SuperNode


Denis Hardi
H&MV


Neema Shayo
EirGrid


Aran Stokes
EirGrid


Chandira Prabu Jinchandran
ESB


Anelisa Ketani
ESB


Luis Miguel Gomez
GP Joule


Miro Cengic
Mace


Nothando Thwala
EirGrid


Herick Conceicao
Apto


David Byrne
EirGrid


Sean Ritson
SONI


Ahmed Ali Shaikh
TUD


Nima Sal Sudhan
ESB


Alan Hickey
SSE


Cormac MacGrory
Finsbury Infrastructure

Foreword

2025 marked another milestone year for the CIGRE Ireland Next Generation Network (NGN), defined by strong member engagement, expanded visibility, and a clear strengthening of its role within Ireland's power system community.

Throughout the year, NGN continued to deliver on its core purpose: supporting early-career professionals and students while creating meaningful connections between academia, industry, and the international CIGRE network. Through a balanced programme of technical webinars, in-person engagements, competitions, and global collaboration initiatives, NGN Ireland has reinforced its position as a key platform for developing the next generation of power system professionals.

At a time of rapid transformation across the energy sector, driven by renewable integration, system flexibility challenges, grid expansion, and interconnection — the contribution of young professionals has never been more critical. The activities of 2025 demonstrated not only a strong appetite for engagement but also the capability of NGN members to actively contribute to shaping the future of the power system.

Today, NGN Ireland represents a diverse community spanning utilities, consultancies, manufacturers, academia, and system operators. As part of the global CIGRE NGN community, now established in 39 countries — NGN Ireland plays a vital role in aligning local engagement with international knowledge-sharing and technical collaboration.

NGN Ireland is focused on:

- Promoting awareness of emerging power system challenges and technologies
- Supporting professional development and technical excellence
- Encouraging participation in CIGRE Study Committees and Working Groups
- Strengthening links between academia and industry
- Enabling collaboration between early-career and senior professionals

Through these activities, NGN provides a structured pathway for young professionals to engage with one of the world's leading power system communities.

The NGN host and provides a number of annual opportunities to its members, including:

- CIGRE Ireland NGN Presentation Competition
- Company-specific NGN competitions
- Technical visits to substations, renewable sites, and energy storage facilities
- Joint international webinars
- Student awards for the Best Final Year Project
- Sponsorship of university student societies
- Mentorship and networking meetups for knowledge-sharing and collaboration



Hamid Reza Shokrani
Finsbury Infrastructure
Chairperson CIGRE Ireland NGN

2025 at a Glance

In 2025, NGN Ireland continued to build on its foundations by delivering activities that combined technical depth, professional development, networking and international perspective. Ensuring that we use CIGRE as a platform where people from diverse backgrounds – from students to senior management professionals – could meet, engage, and network. The growth, engagement and impact from the year include:

- Young members now represent 56% of CIGRE Ireland membership, up from 47% in 2024
- Record participation in the NGN Presentation Competition
- Expanded collaboration with universities and student societies
- Increased visibility through LinkedIn and communications

- Irish representation in international NGN initiatives, including the CIGRE global exchange programme

These achievements underline the growing relevance of NGN Ireland as both a national and international platform for early-career professionals.

Events 2025

Biannual NGN Presentation Competition 2025

The CIGRE Ireland NGN Presentation Competition, held on 4 November 2025 at the EirGrid Conference Centre (The Oval, Dublin), represented a cornerstone event in the NGN calendar.

The competition is designed to:

- Develop technical communication and presentation skills
- Showcase innovative work by early-career professionals and students
- Provide direct exposure to senior industry leaders
- Create a pathway into international CIGRE representation

The 2025 competition saw a record number of abstract submissions, reflecting the increasing visibility and credibility of NGN within the Irish energy community. The competition culminated in a final event featuring top finalists from Trinity College Dublin, SONI, and ESB, presenting on topics such as:

- Machine learning applications in power systems
- Offshore substation design innovation
- Transmission policy development
- Advanced substation analysis methods

The event also included a keynote presentation by John Ging (EirGrid) titled: "Interconnecting Culture and Electricity Systems", which provided a broader systems-thinking perspective on infrastructure and collaboration.



Figure 1: Presenters, panel member & NGN committee member in attendance

Finalists were evaluated by a distinguished panel of experts from, EirGrid Group, ESB and BnM. Aidan McNally a final-year Electronic and Computer Engineering student, was selected as the overall winner and will represent Ireland at the CIGRE Paris 2026 International Conference in the Young Members Showcase for energy sector professionals. The prize includes Prize includes conference attendance (valued at ~€1,500) and international exposure.

Aidan's winning presentation explored the application of artificial intelligence to address grid challenges in the Dublin central area, demonstrating both technical depth and practical relevance. The competition continues to serve as a launchpad for emerging talent, directly linking Irish young professionals with the global CIGRE platform.


Figure 2: John Ging (EIRGRID) giving his presentation on the day

ESB NGN Poster Competition (4 December 2025)

A flagship NGN Ireland activity in 2025 was the NGN Poster Presentation Competition in partnership with ESB. Hosted at the ESB offices on 4th December, this competition invites young professionals to present their work to peers and a panel of experienced industry judges.



Figure 3: Participants going through the poster presentations

The competition was designed to provide a less formal but highly interactive platform for early-career professionals from ESB to:

- Share project work and innovative ideas
- Engage in peer-to-peer learning
- Build confidence in presenting technical concepts
- Expand professional networks

Congratulations to the deserving winners:

- 1st: Fionnuala Murphy - Integration of Non-exporting Solar Generation of the Low voltage network
- 2nd: Amandeep Singh - Looped services integration with Artificial Intelligence
- 3rd: Conor Cassidy - Emergency SCADA system migration



Figure 4: Poster presentation winners being awarded

A big thank you to all our presenters for showcasing their remarkable projects and to everyone who attended and supported this event, making it another great success. The event highlighted the innovation and technical capability emerging from within industry, while also strengthening collaboration between NGN and ESB.

International Collaboration & Cross-Border Collaboration

A defining highlight of 2025 was NGN Ireland's participation in the inaugural CIGRE Global Young Engineers Internship and Exchange Programme, delivered in partnership with China Southern Power Grid (CSG). The programme which was a month-long exchange programme was hosted in Guangzhou, China, and 10 engineers were selected globally, and NGN Ireland was represented by two of our members, Hamid Reza, the NGN Chairperson, and Harry Pratt an NGN member.

The programme was designed to provide deep technical immersion and international collaboration, combining, structured technical training, industry site visits, research exchange sessions and cross-cultural collaboration. It provided unparalleled exposure to large-scale, highly advanced power system operations, including, Ultra High Voltage Direct Current (UHVDC) systems, hybrid AC/DC network operations, digital grids and digital twin technologies, smart substations and automation, AI, robotics, and many more. The experience provided both technical and strategic insights into future power system development at scale.



Figure 5: The 10 CIGRE NGNs selected for the Exchange Program

Participant Reflections

"*A highlight was presenting at the opening ceremony, alongside senior government representatives and global power system leaders, including the Mayor of Guangzhou, Mr Shukai XU (Board Chairman of Guangzhou Power Supply Bureau), Konstantin O. PAPAILIOU (President of CIGRE), and Marcio Szechtman, former Chair of the CIGRE Technical Committee - whose leadership was instrumental in bringing this exchange programme to life.*" – Hamid Reza Shokrani, Finsbury Infrastructure

"*A key takeaway from the program was the scale of digitisation and automation involved in operating and maintaining the power grid. This reinforced the importance of developing practical and scalable technology solutions.*" – Harry Pratt, EirGrid





Figure 6: (L-R) Hamid Shokrani and Harry Pratt making their presentations during the Pearl River Night Tech Salon

This programme demonstrated the value of international knowledge exchange, global collaboration in solving shared system challenges and the opportunity for Irish engineers to learn from and contribute to world-leading systems, positioning participants at the forefront of global innovation.

Student & Academic Engagement

In 2025, NGN Ireland remained actively engaged with universities and academic institutions, strengthening the link between education and industry.

A key highlight was sponsorship of the final-year project awards at University College Dublin (UCD). The UCD CIGRE Ireland Final Year Project Award is organised by CIGRE and UCD School of Electrical and Electronic Engineering, celebrates the outstanding talent emerging from our universities. The award was presented to Saoirse Fletcher Dunne. Saoirse received the award for her project: "Impacts and Challenges of a High Share of Solar PV on the All-Island Power System", supervised by Dr. Damian Flynn.

These initiatives aim to recognise academic excellence, encourage alignment of research with real-world system challenges and provide students with early exposure to industry networks. This continued focus is critical in developing a strong pipeline of future power system engineers.



Figure 7: Award presentation to Saoirse from the NGN committee

Turlough Hill Site Visit

NGN Ireland continued to prioritise site-based learning through technical site visits, providing members with direct exposure to infrastructure and system operations.

23rd October saw, 25 of NGN members visited Turlough Hill Pumped Storage Station in Wicklow, Ireland's only pumped hydro facility, commissioned in the 1970s, with a generating capacity of 292 MW.



Figure 8: NGN participants at the Turlogh Hill station

During the visit participants learned about its impressive technical characteristics, including its ability to ramp up to full output in just 70 seconds with its four reversible pump-turbine units. They also learned that beyond storage, Turlough Hill is a cornerstone of grid stability, as it can deliver a wide range of system services and would play a crucial role in the event of a full-scale Irish grid blackout. They also go to appreciate the site itself as it's an incredible feat of civil, mechanical, and electrical engineering.

This CIGRE Ireland NGN visit brought together professionals from across the energy sector - including renewables, data centres, gas generation, energy trading, academia, students and even the aluminium industry. It was a brilliant opportunity for learning and networking. These activities enabled NGN members to gain first-hand insight into system operation, asset management, and real-world engineering challenges.

Communications & Visibility

The CIGRE Ireland LinkedIn platform remained the primary channel for:

- Promoting NGN-relevant events
- Celebrating member participation and achievements
- Sharing international CIGRE and NGN content

Consistent posting helped raise awareness of NGN activities and reinforced its value to both students and early-career professionals.

In parallel, NGN Ireland continued to publish regular NGN newsletters, providing members with updates on:

- Past and upcoming events
- Successes of young Irish CIGRE representatives
- Opportunities to engage with NGN and CIGRE Working Groups

This consistent communication strategy has significantly improved NGN visibility across the Irish energy sector.

Impact Highlights

Strong participation across all NGN-led events

Increased engagement from students and graduates

Expanded collaboration with academic institutions

Continued Irish representation on international platforms

Growing awareness of CIGRE pathways among young professionals

Challenges and Lessons Learned

Maintaining engagement: Achieved through diverse and inclusive event offerings

Event delivery: Strengthened through early planning and strong partnerships

Student outreach: Improved with targeted communication and university engagement

Committee efficiency: Enhanced through structured roles and responsibilities

Looking Ahead: 2026 Priorities

2026 promises to be an exciting year, with the CIGRE Paris Session taking place. We aim to make 2026 the most active year yet for the NGN, with a strong programme of events and engagement.

Building on 2025, NGN Ireland aims to:

- Expanded collaborations with Irish universities and student energy societies
- New technical site visits to unique energy projects
- Strengthened partnerships with international NGNs for cross-country webinars and workshops
- Encourage deeper involvement in CIGRE Working Groups
- Increase communication and online visibility

2026 presents an opportunity to further establish NGN Ireland as a leading development platform for the next generation of power engineers.

How Young Professionals Can Get Involved

Young professionals interested in joining the group can:

- Become a CIGRE Ireland member and select NGN membership
- Participate in NGN events, technical visits, and webinars
- Volunteer with the committee or contribute to working groups
- Present at the annual NGN competition or technical sessions
- Apply to join the CIGRE NGN committee and play an active role in advancing knowledge sharing across the Irish power system while expanding your professional network

---

NGN Ireland would like to thank:

- The CIGRE Ireland National Committee
- All NGN committee members
- Industry partners and academic collaborators
- Event speakers and contributors
- All NGN members for their continued engagement and support

With special thanks to those who contributed to this report:

Nothando Thwala, Chandira Prabu Jinchandran, Robert Fenlon and Hamid Reza Shokrani.

Stay Connected

CIGRE Ireland LinkedIn

CIGRE Ireland