

National Energy Summit 2022



From left: Helen O'Sullivan, co-founder and operations manager, Flex Power Solutions; Alex Blanckley, principal, AFRY Management Consulting; Ivan Yates, broadcaster and summit host; Chris Collins, country president for Ireland, Schneider Electric; Edwina Nyhan, director of strategy and regulation, Gas Networks Ireland and Paul Griffiths, chief executive, Mag Mell Energy Ireland Ltd

Pictures: Maura Hickey

Curbing fossil fuel demand to ensure a greener future

The first National Energy Summit was a robust affair with lively debate, strong findings and a real appetite and desire to collaborate for a better future. **Quinton O'Reilly** reports

If there was one thing that summed up the first ever National Energy Summit, staged at Croke Park on Tuesday, April 26, it was active engagement.

Not only were speakers working together and critiquing issues when they arose, but throughout the day, it was clear that when speakers talked about collaboration and moving in the same direction, they practised what they preached.

"The more I look at this, the more I think there is great [opportunity]," said Ivan Yates, broadcaster and summit chair. "The targets we set for ourselves on this irreversible journey between now and 2050 are really quite extraordinary."

The event itself could not have arrived at a more opportune time. The context of a world facing significant social, economic and geopolitical upheaval represents both challenges and incredible opportunities.

Ireland has ambitious targets to reduce emissions by 80 per cent by 2030 and achieve net-zero by 2050. With this as the context, the topics of energy security, policy, scalability and affordability were touched on throughout the day.

Speakers included Calin Tasnadi, technical group lead for the Heat Pump Association of Ireland; Kristian Ruby, secretary-general for the union of the Electricity industry, Eurelectric; and Paddy Phelan, president of the Irish Energy Storage Association (IESA).

Setting the challenge

The first few keynotes of the day set the tone for the day's events, with Mary Lou McDonald, president of Sinn Féin, mentioning that each generation faces its own unique challenges for progress and survival in humanity's story.

"Today, that challenge is how we meet our energy needs now and into the future," she said. "As you meet here today for your deliberations, we stand at a crossroads, as does the whole world, and the decisions we make today will shape the future."

Further setting the scene for the upcoming discussions was Elaine O'Connell, policy officer at the directorate general for energy for the European Commission. She highlighted the many ways the European Commission is ad-



Sean Finan, chief executive, Irish Bioenergy Association (IrBEA); Calin Tasnadi, technical group lead, Heat Pump Association of Ireland and Siobhan McHugh, chief executive, Demand Response Association of Ireland



Paddy Phelan, president, Irish Energy Storage Association (IESA); Justin Moran, director of external affairs, Wind Energy Ireland and Conall Bolger, chief executive, Irish Solar Energy Association (ISEA)

ressing this challenge, mentioning the Green Deal, RePower EU and other initiatives.

"It's a big plan to become independent from fossil fuels and diversify our supplies. You might think Ireland is a small country, so what can we do, but Ireland is leading the way in certain areas," she explained.

"For example, the system here can handle 75 per cent renewables generation. This is world-leading and cutting-edge work: we're playing an outsized role in how the energy system can operate."

Building on these speeches was Brian Ó Gallachóir, professor of energy engineering at UCC & director of Science Foundation Ireland's MaREI Centre.

"The context has never been stronger in accelerating a transition," he said. "We've also had a significant change in the last few years politically, and it's important to acknowledge that."

A key theme that popped up during the summit was diversity of supply. While wind and solar are some key indicators of a successful energy grid, gas still plays a role either in its current form or in bioethanol as mentioned by Edwina Nyhan, director of strategy and regulation for Gas Networks Ireland.

In a panel discussion with Dr Colm Ó Conaill, energy attaché to the EU and Department of Foreign Affairs and Trade, Robert O'Rourke, senior manager of electricity networks for the Commission for Regulation of Utilities (CRU), and Jim Scheer, head of data and insights for the Sustainable Energy Authority of Ireland (SEAI), Nyhan said domestic customers were the priority, and that there was a clear plan if a shortage of supply ever occurred.

"Our domestic customers are our priority customers. There's a clear plan and all the various stakeholders affected would be involved, but our priority is those customers."

When asked what the most important message was for the second quarter of 2022, Ó Conaill said: "We know it will be very difficult, but that doesn't mean it's impossible. We have the roadmaps to do it; it's a question of deploying the necessary resources to deliver on that."

It's clear Ireland is much further on than it was a few years ago. Paul Griffiths, chief executive of Mag Mell Energy Ire-

land, said: "Back in 2018, nobody gave one iota of consideration to fossil fuel companies, whereas in 2019 and 2020, it became the key issue, quite rightly."

Future solutions

Much was made of the next steps renewables can take to ensure security of supply and storage, in a discussion with Paddy Phelan, president of the Irish Energy Storage Association (IESA), Conall Bolger, chief executive of the Irish Solar Energy Association (ISEA), and Justin Moran, director of external affairs at Wind Energy Ireland.

The issue of planning and speeding up the process came up during these sessions, with Muireann Lynch, research officer for the Economic & Social Research Institute (ESRI), highlighting the negative impact of delays.

"We did a bit of research and looked at the impact of all these planning delays. We were surprised that they were bigger than we thought," she said. "The ultimate losers are consumers: they ultimately pay higher electricity prices if projects are delayed and end up having to use higher emissions."

While the future isn't crystal-clear, there is cause for optimism, with Alex Blanckley, principal at AFRY Management Consulting, pointing to the example of energy storage.

He highlighted the major benefits of increasing the number of hours of storage to 1.6GW, including more renewable electricity generation, reduced emissions, and improved societal benefits like saving money.

"As you add longer duration of storage, the benefits go up, and that stops when it gets to eight hours," he said. "What's clear is that the longer duration of six hours-plus is a good thing."



Brian Ó Gallachóir, professor of energy engineering, University College Cork and director of SFI's MaREI Centre

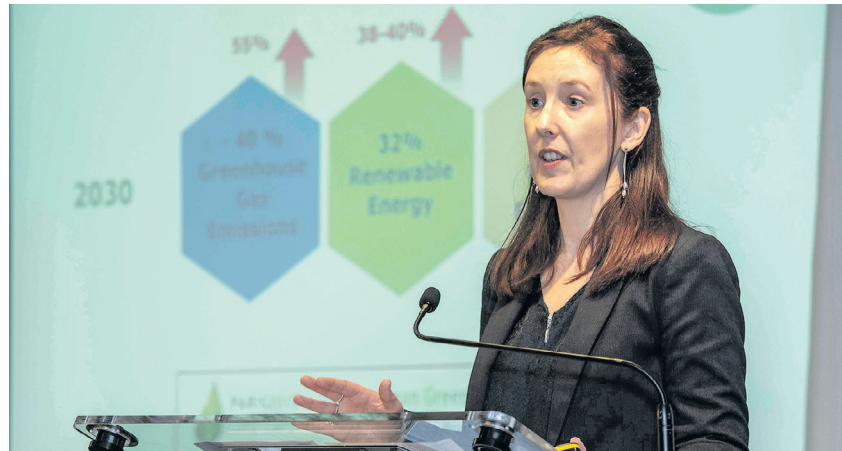
Linked to this was a conversation on how every building and entity could become its own power generator and contribute to the grid.

In the panel discussion on accelerating ambition to scale up for the future, Siobhan McHugh, chief executive of the Demand Response Association of Ireland, mentioned the benefits of having multiple sources contributing to the system.

"It gives you a way to monetise an asset," she explained. "Rather than just



Sinn Féin leader Mary Lou McDonald was a keynote speaker



Elaine O'Connell, policy officer at the Directorate General for Energy, Internal Energy Market Unit, European Commission



James O'Donnell, associate professor, School of Mechanical and Material Engineering, University College Dublin; Chris Collins, country president, Schneider Electric Ireland and Barry Hayes, assistant professor, School of Engineering, University College Cork



Donna Gartland, chief executive, Codema; Marie C Donnelly, chairwoman, Climate Change Advisory Council and Helen O'Sullivan, co-founder and operations manager, Flex Power Solutions



Muireann Lynch, research officer, Economic and Social Research Institute (ESRI); David Carroll, head of innovation and research, EirGrid Group and Grace Aungier, conference director, iQuest

being an energy user, you're providing a service to the energy system."

"You're going from a world of paying for energy to now providing a service that will not just benefit you in your individual site, but will help to integrate renewables into the grid."

Similarly, Chris Collins, country president for Schneider Electric Ireland, mentioned microgrids in the chat about how digitalisation is accelerating progress this decade. He offered one example of a building – through a combination of solar, wind and storage – generating 103 per cent of what it uses.

"We can have small generation facilities on-site, buildings with solar and storage included that can move via generator or to the grid," he said. "It produces what is needed and consumes what is needed."

During the afternoon, speakers such as James O'Donnell, associate professor at the School of Mechanical & Material Engineering, University College Dublin (UCD), Sean Finan, chief executive of the Irish Bioenergy Association (IrBEA), and Barry Hayes, assistant professor at the School of Engineering, University College Cork (UCC), gave their views on digitalisation and scaling.

But the spotlight series on heating was of major interest.

Energy Association (IrDEA), explained that the technology is so well-established in Europe that Ireland can learn from these countries. It can follow best practices and start off with fourth-generation district heating powered by renewables.

This was mirrored in a talk by Helen O'Sullivan, co-founder and operations manager of Flex Power Solutions, who spoke about the collaboration between electricity and heat.

Ireland is a leader in wind energy but this is under-utilised, she said. But decarbonising the heating sector using indigenous renewable energy is possible through tools such as high-pressure electrode boilers and projects like Tallaght District Heating System, which provides low-carbon heat to buildings.

Finishing on a strong note was Marie C Donnelly, the chairwoman of the Climate Change Advisory Council, who ended the day with a crucial message.

"The direction of travel that we're taking is fundamentally about demand management," she said. "To take an expression we all used over the last two years, we need to flatten the curve."

"Ultimately, in the electricity system, why do we have a demand curve today in 2022 that looks the same as 15 years ago? With all the technologies and possibilities we have out there, why have we not flattened the demand curve in the electricity system?"



Robert O'Rourke, senior manager, Electricity Networks, Commission for Regulation of Utilities (CRU); Jim Scheer, head of data and insights, Sustainable Energy Authority of Ireland (SEAI); Edwina Nyhan, director of strategy and regulation, Gas Networks Ireland; and Dr Colm Ó Conaill, energy attaché to the EU, Department of Foreign Affairs and Trade, Ireland