

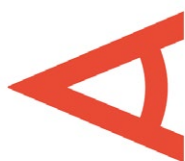
# Our **Zero** e-Mission Future



## An Electricity Association of Ireland & Cornwall Insight Event

MANSION HOUSE, DUBLIN

3<sup>rd</sup> November 2022



**CORNWALL INSIGHT**  
CREATING CLARITY



**ELECTRICITY  
ASSOCIATION  
OF IRELAND**

# A Brief Overview

On November 3rd, the Electricity Association of Ireland, in association with Cornwall Insight, were delighted to host an informative and engaging session on the topic 'Our Zero e-Mission Future'. Industry leaders across electricity generation and supply gathered at the Mansion House on Dawson Street to discuss the developments being made by their business to transition to a zero e-Mission future.

Set against the backdrop of energy prices skyrocketing due to the Russian invasion of Ukraine, as well as market interventions seeking to balance customer protection and future investment, this conference was aptly timed to provide the audience with an insight into the future of energy in Ireland.



ELECTRICITY  
ASSOCIATION  
OF IRELAND

Session 1 | CEO Roundtable

Session 2 | A Retail Market for a  
Zero e-Mission Future

Session 3 | A Single Electricity Market  
for a Zero e-Mission Future





# Introductions

The day was broken down into three expert sessions beginning with a CEO Roundtable to showcase ongoing developments within each speaker's company to transition to a zero e-Mission future. This was followed by an Electricity Retail Session, to discuss how to bring the consumer with us on the road to decarbonisation. Our final session to close the day was a Markets Session, considering the need for effective market design and the proposed EU market interventions.



**Kevin O'Sullivan**

**Kevin O'Sullivan**, Environment and Science Editor at The Irish Times, expertly chaired each of the sessions and led the discussions, pushing our panel of speakers to touch on a wide range of topics. He touched on some of the issues himself such as the war in Ukraine and the reduced scale up of renewables due to the war in his opening address.

**Robert Buckley**, of Cornwall Insight, gave an excellent overview of the current energy trilemma, balancing security of supply, affordability, and a move to decarbonisation. He outlined that as we move forward to decarbonisation, the role of gas will not go away and that gas prices are set to remain high out to 2030. This emphasised the importance of efficiency in both generation and domestic use of gas as a key mitigation. He remarked that an elevated level of political scrutiny is set to continue and the importance of the island of Ireland working in an integrated way to ensure green objectives are met.



**Robert Buckley**

**Peter O'Shea**, Chairman of the Electricity Association of Ireland and Head of Corporate and Regulatory Affairs, ESB Group, gave an opening address, emphasising the importance of electricity as an enabler for social and economic development. Peter went on to recognise the role EAI plays and will continue to play as an insight into the collective interest of a fully integrated transition to net zero, which reflects the aims of the Government. He noted the system wide approach of EAI is a valuable asset on both sides of the border, connecting an all-island grid in a unified aim. Peter highlighted how pivotal a time it is for the energy sector and emphasised the importance of the role that the participants of the conference will play over the coming years in achieving a fully resilient energy system that serves its customers.



**Peter O'Shea**





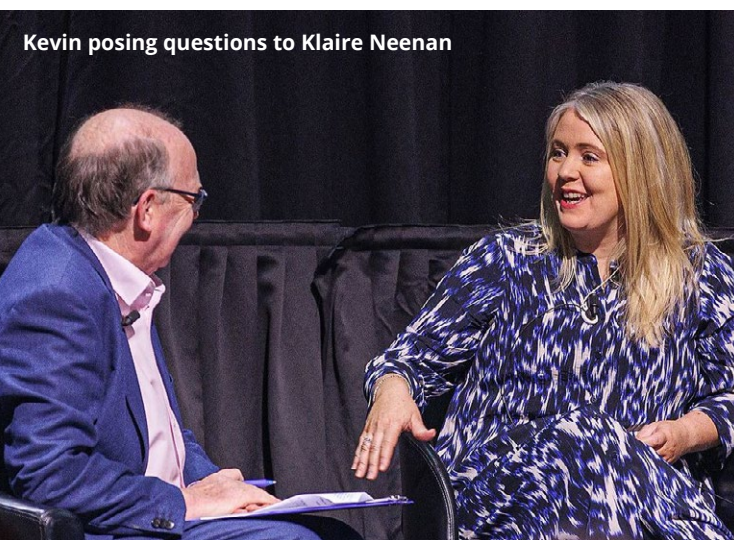
## Session 1 | CEO Roundtable

### How is your company approaching net zero and what business opportunities will the transition bring?

**Klaire Neenan**, Managing Director of SSE Airtricity, kicked off the discussion framing how the challenges we face now are greater than the challenges faced in 2009 with renewables at only 14% of supply. Tackling these challenges head on, SSE will be investing €14 billion into renewables to 2026. SSE are also developing the largest offshore wind farm at Dogger Bank with 3.6 GW of capacity.

Closer to home, SSE have also established a 'Green Home Upgrade', allowing for homes to avail of efficiency improvements and energy upgrades. Recognising the role that other renewables will play in the transition, Klaire also noted SSE's co-operation on the Galway Hydrogen Hub, working to create a hydrogen ecosystem linking various stakeholders. SSE aim to build 1GW of decarbonised thermal by 2031 in GB/Ireland utilising Hydrogen.

**Ian Thom**, CEO of Energia, noted the increased prevalence of Black swan events and the need to get back to being utilities that provide an integrated model and resilience. He was keen to emphasise the importance of baseload generation in facilitating the transition. With Their 750MW CCGT (Combined Cycle Gas Turbine) plant in Huntstown, 375MW in wind energy and €3 billion in investments, Energia will be a significant part of that transition. He noted the importance of reducing carbon intensity as a mitigator of climate change and pledged Energia's commitment to reducing carbon intensity by 50%. Whilst Ian appreciated the current factors affecting energy prices, he emphasised that now is not the time for knee-jerk reactions or retrospective changes due to the significant investment that is required in building a renewable system.



Kevin posing questions to Klaire Neenan



Ian Thom providing Energia's input



Kieran White



**Kieran White**, SVP of Orsted Europe, continued the discussion. Portrayed by Kevin O'Sullivan as the 'newcomer', Kieran described Orsted's position globally and the projects currently being brought to Ireland. He outlined that Orsted would continue to deploy offshore and onshore wind, but also solar and storage facilities and the 3 pillars needed to support this were:

- 1) A Supportive Policy Framework
- 2) Efficient Permitting
- 3) Access to the Grid

Looking across the Atlantic to Houston Texas, Kieran gave us a unique perspective on what can be done to decarbonise the transport and cargo industry describing the Orsted partnership with Merx to power 12 new ships on e-methanol.

Kieran also brought another crisis to the fore, the biodiversity crisis. Drawing attention to the 68% reduction of animals on Earth since the 1970's, linking the effects of pollution and land use to the energy industry he stated that it is a challenge we will also have to resolve.

**Dave Kirwan**, CEO of BGE, described how BGE is providing customers with a clear mechanism to decarbonise. This includes providing a technology platform for heat pumps, solar panels and digital technologies backed up by a trebling of engineers available to customers and a new intake of apprentices next year. He emphasised that education is required to create the skill sets necessary for a transition to net zero.

Baseload is a key factor of the transition and to aid this BGE are developing two 100MW gas fired generation plants in Dublin and Athlone to mitigate the effects of intermittency of wind. These plants can generate at 20MW increments to allow for flexibility in meeting demand.

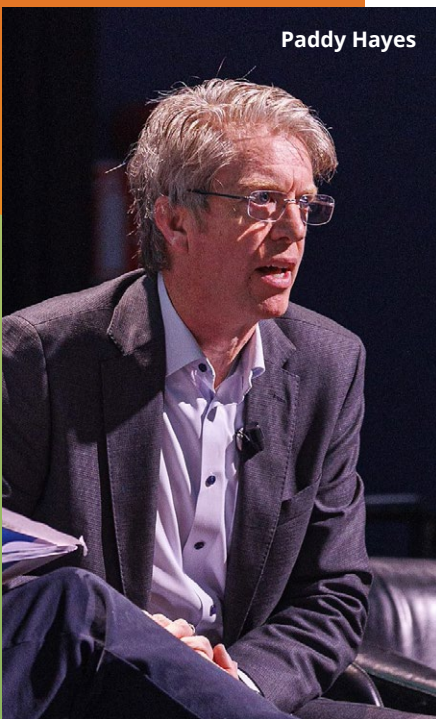
Kieran White, Dave Kirwan, Paddy Hayes



**Paddy Hayes**, CEO of ESB, told us that Ireland will soon be achieving the equivalent of peak demand with renewables. This is a massive milestone in achieving the transition to net zero. But this provides its own challenges, and opportunities.

He told us that we need to develop systems to take surplus green energy off the grid and effectively use that energy. ESBN and NIE Networks are investing so that we can connect to the Grid quickly and efficiently. Storage, systems services, and hydrogen plants need to be granted permission to develop at a faster rate to fully realise the goal of a renewable energy supply. He noted how ESB will be taking a step back from thermal investment and that Moneypoint is becoming a Green Atlantic Energy Hub. He indicated that taking Moneypoint off coal was as important as putting more renewables on the system. He was happy to announce that the day after the conference Ireland's first synchronous condenser, used to stabilise the grid, would be opened in Moneypoint.

Paddy Hayes





## How do you see the security of supply issue being managed?

### Dave Kirwan BGE

- ▶ We need to be resilient with balance sheets that can weather the storm.
- ▶ Customer support is everything. BGE have doubled their customer support agents to identify and aid customers who are at risk of not being able to pay bills.
- ▶ Giving customers 24 months to clear any debt.

### Paddy Hayes ESB

- ▶ Moratoriums on disconnections for the coming winter months will help customers.
- ▶ Using SMART Meters and tariffs to reduce demand and Investment into systems services will also play a significant role.

### Klaire Neenan SSE

- ▶ €25 million affordability fund is in place to assist vulnerable customers.
- ▶ Continuing to provide funding for energy efficiency upgrades with the aim of reducing a customers demand and bills.
- ▶ Ensuring that there is an appropriate technology mix to tackle the crisis.

### Ian Thom Energia

- ▶ There has been distressing interactions with customers - we need to be the helpful voice instead of automating all processes. He has seen an increase in counselling to agents who are on the front lines, facing customers.

## Where does Ireland fit in an EU context?

### Kieran White, Orsted

- ▶ Ireland is at risk of falling behind EU counterparts. This is primarily due to access to planning permission.
- ▶ We need to resource institutions that will allow for the swifter implementation of offshore and onshore projects

### Dave Kirwan, BGE

- ▶ The absence of market coupling across the GB and EU markets is an issue that needs resolution. We need to economize not politicize!
- ▶ We need a supply chain at scale, BGE is seeing the advantage of leveraging procurement at Centrica level.

### Klaire Neenan, SSE

- ▶ SSE see a huge benefit of working across an all island team.
- ▶ As SSE prepare to open a one stop shop in the North, the lessons learned in the South will be invaluable.

### Paddy Hayes, ESB

- ▶ There will be technology transfer from the North Sea developments.
- ▶ In times of stress, we will see that we are better connected. The UK has been a good partner.

## What future looking technologies can we expect to see in the coming years?

### Ian Thom, Energia

- ▶ Offshore wind will begin to play an even bigger role over the coming years.
- ▶ Investors need certainty, emphasising the need to resolve the terms and conditions for the offshore auction.

### Paddy Hayes, ESB

- ▶ Hydrogen is the forerunner and is the best fit for balancing renewable generation.
- ▶ ESB are always looking for innovative technologies and developments that can lead to the more efficient generation and movement of energy.





## Session 2 | Retail Session

Session 2 brought the consumer into focus with members of our EAI Retail Committee. The informative discussion showed the commitments suppliers are making to protect and enable customers as we transition to net zero.

Andrew Enzor, Cornwall Insight



This session began with an introduction by Andrew Enzor, Managing Consultant at Cornwall Insight, who told us how Net Zero will require behavioural changes as we move towards local generation through solar and community generation, as well as changes to consumption as consumers respond to alerts to reduce demand. These changes will be relying on consumers engaging

with modern technologies such as EV's and Smart meters. He noted how the crises has put customer engagement at an all-time high. Customers are willing to explore measures to reduce their own costs, as well as reducing their demand out of a civic duty.

Engaged members of the audience



This has created a role for the industry to protect customers through the crises, as well as the opportunity to move at pace. The pathway is clear, if we fail to bring customers along at this point, we risk losing years of progress through customer disengagement. If we succeed, we can lay the foundations for a future retail market, with flexibility at the meter, central to its design. He pointed to bundled products to fund upfront costs whilst allowing savings to be realised.



## How do you see us 'getting it right' and bringing customers on the journey to net zero?

**Gillian Kinsella**, Chair of the EAI Retail Committee and Senior Policy Manager, BGE, opened the discussion amongst the panellists. Her position was that we need to bring customers along by enabling them to understand their energy use. This can be achieved through access to Smart Metering data, allowing customers to see their energy usage at half hourly intervals.



Gillian Kinsella

**Stuart Hobbs**, Director of Energy Services, SSE, recognised the current levels of engagement are up, and stated that to sustain this, we need to remove industry jargon so we can encourage consumer confidence in making the long-term investments which are necessary to move to decarbonisation.



Stuart Hobbs



Caoimhe McWeeney

**Caoimhe McWeeney**, Senior Regulation Analyst, Energia, stated that customers need to be brought along through continued energy efficiency investment into homes. This needs to be achieved both cheaply and easily to provide support for customers through the current crises. Caoimhe also acknowledged the role that Smart meters will play in promoting renewables and energy management, giving consumers a central role in the transition to net zero.

**Niall Hogan**, Head of Innovation and Regulation, Electric Ireland, emphasised that electrification is the path to net zero as it is a cross industry vector with multiple applications. In bringing the customers along with journey they need to be given control. This is control over usage which is enabled through Smart meter data and technology. Customers should be able to pinpoint times to turn on high demand devices and gain more flexibility with their electricity use.



Niall Hogan



## How will we improve usage of Smart meters?

### Gillian Kinsella, BGE

This boils down to data access for all customers, and for suppliers. There are high levels of interest currently and we need to sustain this by getting customers their data and allowing them to utilise that data to reduce their bills.

### Niall Hogan, Electric Ireland

Customers care about their usage and have never been more engaged. We need to use the Smart data to present to customers graphical representations of their usage and provide clear bill expectations based on their unique profile.

### Stuart Hobbs, SSE

Customers should have access to 'Hyper-Personalisation', providing a range of solutions specific to their needs, creating a democratisation of Energy. We need to answer the consumer question, 'what's in it for me'?

### Caoimhe McWeeney, Energia

Through incentivising customers by providing competitive time of use tariffs. We also need to ensure we are coordinated in messaging to customers, ensuring that customers are clear on the meter capabilities and the opportunities that presents to customers.

## How can suppliers help customers increase the energy efficiency of their homes and what challenges need to be addressed?

### Stuart Hobbs, SSE

We must make sure customers view suppliers as a solution and not a problem. We can do this through promoting the use of one stop shops as well as providing financial and technical support for customers on retrofit journeys.

### Gillian Kinsella, BGE

The Climate Action Plan has set ambitious targets, against the backdrop of rising materials and labour costs. We need to support customers by implementing measures such as a Vat rate of 0% on energy efficiency measures.

## In the context of rising prices, how will customers be supported over the coming months and into the future?

### Niall Hogan, Electric Ireland

There have been measures from the Government to help customers with their bills. This includes the energy credit to the value of €600, and the Temporary Business Energy Support Scheme.

### Caoimhe McWeeney, Energia

Support and information are provided to customers through our winter readiness program, which highlights tips to reduce use as well as providing support for vulnerable customers. In the long term we need to improve the quality of housing stock.

## How can customers increase their consumption of renewable electricity and what role can suppliers play?

### Caoimhe McWeeney

- ▶ Restraints on planning permission for solar have been removed, making it more accessible.
- ▶ Offering credit to customers through the microgeneration support scheme.

### Niall Hogan

- ▶ Currently supply issues in the market need to be addressed to meet the demand.
- ▶ Continuing to offer customers a monthly payment for energy sold back to the grid.

### Gillian Kinsella

- ▶ Bringing the potential new Small Scale Generation scheme to the market, allowing for larger renewable producers to export electricity.





## Session 3 | Markets Committee

Session 3 was focused on the current state of the market, and the investments which need to be brought in to move towards net zero. Our panelists provided an insider view to the challenges suppliers are facing within the market with analytical insight provided by Ruth Young from Cornwall Insight.

**Ruth Young**, Senior Consultant, Cornwall Insight, began the session by posing the question as to whether the market is working?

The current high prices due to the wholesale gas price, highlight the deficiencies of the market, with end users feeling the impact. The current issues regarding security of supply show the capacity market is not sustaining the necessary generation.

However, this is a market that is years in the making and its functioning determines long term investment needed to meet net zero targets.

Knee-jerk reactions now could be costly for 2030 targets.

She told us that whilst prices remain high and there is pressure on the consumer, price cannibalization will come into play as the number of renewables on the grid increases and prices will begin to fall.

Ruth provided the perspective that across the economy there needs to be a reduction of emissions of 51%, and the energy sector will have to lead the way. Resulting from this we need to start looking to solutions such as hydrogen for the difficult to abate sectors of industry. There also needs to be significant investment into Systems Services which will provide the operational capabilities of a 95% SNSP.

Ruth Young, Cornwall Insight







Lawrence Slade

### What do investors look for in a market, and how does Ireland fit into that image?

**Lawrence Slade**, CEO, Global Infrastructure Investor Association, opened up the discussion from an investor perspective. He told us that his company manages 70 global infrastructure investment funds with a total value of €1.3 trillion, each including energy infrastructure.

Lawrence indicated that investors seek to ensure that there is certainty around regulations and political stability in the areas of investment.

Political uncertainty in the UK has led to a large decrease in investment, meaning massive investment opportunities for Ireland. But can Ireland act fast enough to capitalise with the introduction of the US Inflation Reduction Act that could draw away supply chain from Europe?



Julie-Anne Hannon &amp; Jag Basi

### What can the regulator do to balance the need to retain existing capacity and encourage new entrants, whilst keeping an eye to delivering decarbonisation?

**Stacy Feldmann** Wholesale Regulation Manager, SSE, as well as the Chair of EAI Markets Committee, began by discussing the regulatory facilitation of the market and how investment signals must work in harmony.

Her position is, while temporary changes must be made in order to deal with the short-term market issues, the market bedrock itself should be kept as is.



Stacy Feldmann

**Julie-Anne Hannon**, Senior Manager of Regulatory Affairs, BGE, talked about the need for regulatory certainty during a period when the market is in a state of flux. The right signals are needed in DS3 System Services as well as the Capacity Market.

Julie-Anne outlined “quick wins” that could be implemented such as revisiting the system services price cap determined in 2013 and develop a price cap that is future-looking.

**Jag Basi**, Head of Regulation & Compliance, ESB GT, stated that the system was imbalanced, but warned of not losing sight of tomorrow. Like Stacy, he believes in the market we have today, along with a pathway for we need to be in the future.

**Cian Fitzgerald**, Senior Regulation Analyst at Energia, discussed system supports to 2030 and the need for offshore wind, solar, as well as battery storage.

The Regulatory Authorities have, so far, not looked at long duration storage and this needs to be viewed as part of the transition.

Cian feels that the piece-meal issues such as these need to be focused on more and are the final piece in the puzzle for net zero.



Cian Fitzgerald





## With recent EU interventions particularly short-term measures - does it raise any concerns with respect to net zero?

### Lawrence Slade

- ▶ No future investment incentive in the proposed EU market changes.
- ▶ Where are the incentives and market signals to speed up investment in order to avoid winters like this one in the future?

### Jag Basi

- ▶ Need to ensure no double penalties from revenue cap as most wind is on Contracts for Difference.
- ▶ How the cap is implemented is important, so as not to affect the market order.

## What are the key priorities for generators that could be pushed forward to produce the best benefit for customers?

### Jag Basi

- ▶ We need to consider whole system thinking - storage, onshore, offshore, the system is connected, and the approach taken needs to reflect this.
- ▶ Spent money today could be really beneficial tomorrow

### Stacy Feldmann

- ▶ There is a need for the mindsets of the RAs and TSOs to change from cost saving to cost saving versus future benefits
- ▶ Cost benefit analysis of future projects.

### Lawrence Slade

- ▶ Failure to invest now kicks the can down the road and leads to issues that will require much higher levels of investment in the future.
- ▶ Holistic view is critical. Investors are interested in Hydrogen.

### Julie-Anne Hannon

- ▶ Renewables will not get us to net-zero on their own. Complementary renewable resource such as hydrogen needs to be an urgent focus
- ▶ 3500 MW of plants more than 20 years old, this aging fleet will need to be assessed as to their ability to generate in the future.





# Closing Remarks

**Dara Lynott**, CEO of the Electricity Association of Ireland, closed the conference by summarising the key aspects of each of the panels and providing some talking points to bring to the post conference lunch. He set out the 4 key aspects of the EAI strategy 2022-2025 being launched at the event as:

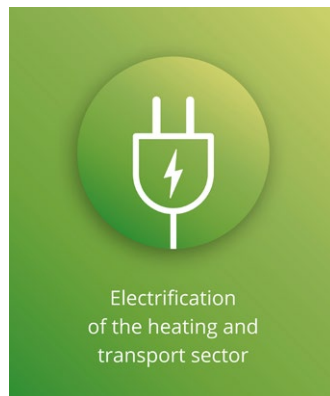
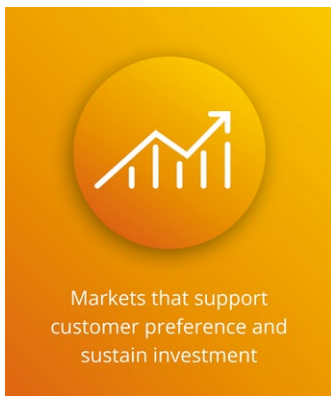
- ▶ A cost-effective transition to a decarbonised electricity sector.
- ▶ Electrification of the heating and transport sector.
- ▶ Efficient and competitive electricity and gas markets that support customer preference and sustainable investment in the sector
- ▶ Support the deployment of new low-carbon technology in a secure and resilient system.

Thanking the speakers for their contributions today, he also applauded the guests for the commitments they have made over the last number of years to the EAI in producing policy and informed thought leadership.

Dara acknowledged the work of Cornwall Insight and particularly, Cathal Ryan on ensuring the successful delivery of the conference.

A final note of thanks was made to Peter O'Shea, Chair of EAI, the board of directors and the secretariat.

Dara Lynott



Electricity Association of Ireland, 6 Merrion Square North, Dublin, D02 FF95 | [info@eaireland.com](mailto:info@eaireland.com) | [www.eaireland.com](http://www.eaireland.com)

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