

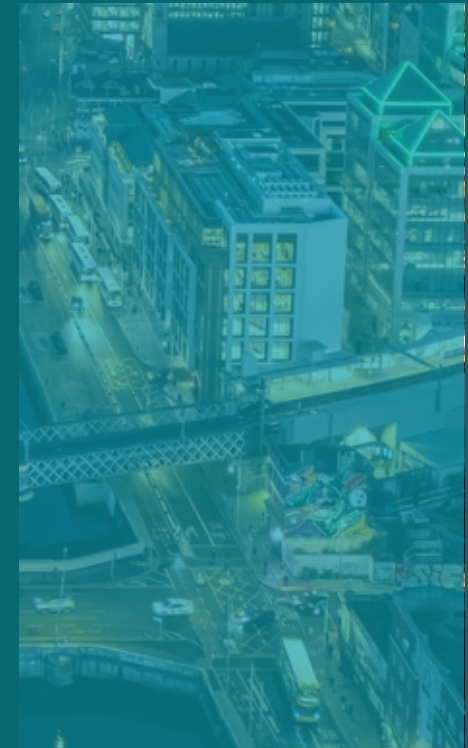
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THE SINGLE
ELECTRICITY
MARKET: AT
A GLANCE

HOW IT WORKS AND
WHY IT MATTERS



About

The Single Electricity Market (SEM) is the wholesale electricity market for the island of Ireland, covering both Ireland and Northern Ireland.

It was established to create a combined market where electricity is traded across two jurisdictions and two currencies, making it the first and only market of its kind globally.

The SEM enables generators and suppliers to buy and sell electricity in a transparent and competitive environment, ensuring that homes and businesses receive power efficiently and at fair prices.

The SEM's design promotes cross-border cooperation, optimises resource use, and supports system reliability by pooling generation capacity across the island of Ireland.

WHAT IS THE SEM COMMITTEE

The SEM is overseen by the **Single Electricity Market Committee (SEMC)**, a joint regulatory body comprising representatives from:



The Commission for Regulation of Utilities (CRU)



The Utility Regulator (UR)



Independent members

THE ROLE OF SEMC

The SEMC is the decision-making authority for all SEM matters, overseeing a wholesale electricity market that delivers secure, low-carbon, and efficient outcomes for consumers across the island of Ireland.

CONSUMER PROTECTION & COMPETITION

SEMC promotes competition and security of supply to keep prices competitive and reliable electricity available.

SUPPORTING INFRASTRUCTURE & INNOVATION

SEMC encourages investment in new energy infrastructure and innovation for a sustainable future.

Why

A JOINED-UP ELECTRICITY MARKET

Before the SEM was established, electricity was traded separately in Northern Ireland and Ireland.

The SEM creates a **single, all-island market**, it enables **cross-border electricity trading**, and it optimises the use of generation resources across the island.

This integration improves efficiency and allows electricity to flow where it is needed most.

SUPPORTING HOMES AND BUSINESSES

The SEM plays a vital role in everyday life by ensuring a **reliable electricity supply** for homes, schools, and businesses. It supports efficient pricing through **competitive market conditions** and **maintains security of supply** through forward planning and capacity investment.

4,100 MW
OF NEW
GENERATION

€6.7
BILLION

35.4
MILLION MWh

SUPPORTING INVESTMENT IN THE FUTURE

Significant investment has been supported through the market.

Over 4,100 MW of new generation capacity since 2017, strengthening long-term supply. This is a significant amount relative to the size of the market.

The investment is driven by the need for new flexible generation to accommodate renewables, facilitate demand growth and replacing older less efficient generation sources.

A LARGE AND ACTIVE MARKET

The SEM comprises three areas that provide revenue streams relating to the services provided by market participants: the energy market, the capacity market, and system services.

Together, these three areas ensure liquidity, competition, and robust price formation.

The SEM energy market has an ex-ante value of €6.7 billion.

ELECTRICITY GENERATION ACROSS THE SEM

In 2025, the SEM delivered a total generation of 35,437,000 MWh across the island of Ireland. The majority of this generation, 28,748,000 MWh, was produced in Ireland, with a further 6,689,000 MWh generated in Northern Ireland*.

This reflects the integrated nature of the SEM, enabling electricity to be produced and shared efficiently across both jurisdictions.



Benefits

COMPETITIVE PRICES FOR CONSUMERS

Promoting competition among generators and suppliers, putting downward pressure on prices, reducing the risk of market abuse through active monitoring, and delivering better value to consumers. 93% (6,490,535 MWh) of lower cost energy was imported to the SEM from GB via interconnectors, contributing to price convergence with neighbouring markets.

RELIABLE AND SECURE ELECTRICITY SUPPLY

Security of supply is a key priority, with the SEM delivering this through capacity auctions that secure future generation, providing investment signals that encourage new infrastructure, and enabling long-term planning via adequacy assessments. In 2024/2025 alone, 6,445 MW of capacity was secured for future delivery, ensuring demand can be met, while interconnectors support efficient price formation and market convergence.

EFFICIENT USE OF RESOURCES

By pooling generation across the island, electricity is produced where it is most efficient, optimising transmission and generation, reducing inefficiencies, and enabling a more cost-effective and resilient system.

TRANSPARENCY AND STRONG REGULATION

The SEM operates under clear rules and oversight, with market codes guiding participant behaviour, independent audits ensuring compliance, and a Market Monitoring Unit overseeing trading activity. Providing confidence to participants and consumers that the market is fair and well-regulated. SEMC supports this by ensuring rules and incentives align with climate goals while maintaining reliability and affordability.

Decarbonisation

DRIVING DECARBONISATION

The SEM plays a critical role in the transition to a low-carbon energy system. During 2024/2025:

-  36.8% of electricity generation came from renewable sources
-  Wind provided over 32% of generation
-  Solar reached record levels
-  Ending coal generation in June 2025 reduced emissions and lowered electricity carbon intensity.

The market facilitates the integration of renewable energy while maintaining system stability.

ENABLING INNOVATION AND FLEXIBILITY

The SEM supports new technologies, including:

-  Battery storage
-  Demand-side response
-  Low-carbon system services (LCIS)

Initiatives such as LCIS help maintain grid stability as we transition to a low-carbon electricity system.

REDUCING CARBON INTENSITY

The SEM has contributed to a decline in carbon emissions intensity, with cleaner electricity produced through:

-  Increased renewable generation
-  Greater use of flexible technologies
-  Reliance on coal reduced to zero

Reliability



ENSURING SECURITY OF SUPPLY AND PROMOTING COMPETITIVE MARKETS

CAPACITY AUCTIONS FOR SECURITY

SEMC secures electricity generation years ahead to ensure supply during high demand or outages, reducing shortage risks.

LONG-TERM PLANNING AND FORECASTING

Detailed modelling forecasts future electricity demand and supply, enabling early risk identification and policy action.

COMPETITIVE MARKET OPERATIONS

The SEM encourages competition via multiple trading markets and monitors to prevent anti-competitive behaviour.

INTERCONNECTION AND PRICE MODERATION

Interconnection with other systems can enable the import of lower-cost electricity, enhancing security of supply and helping to reduce overall system costs.