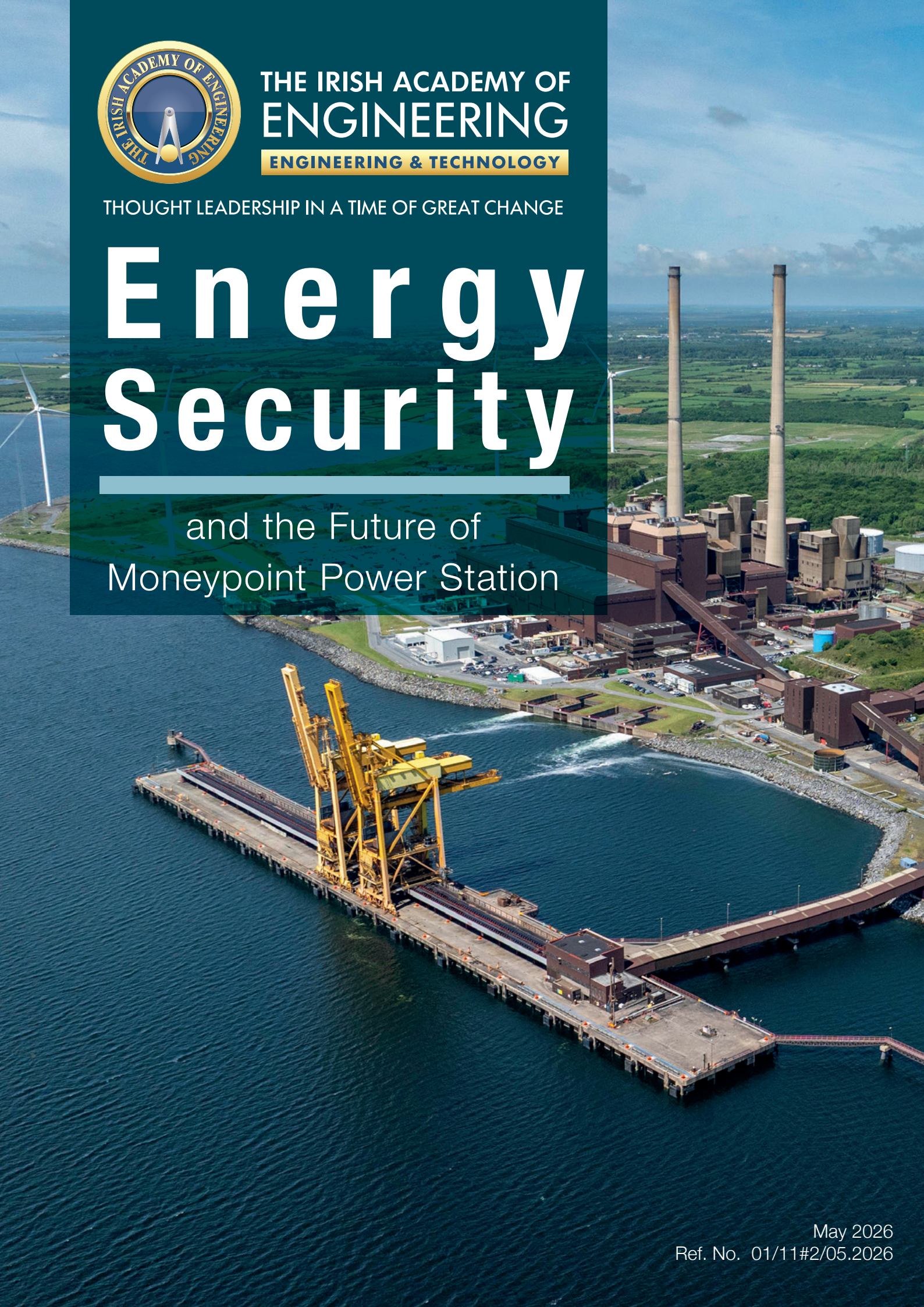
THE IRISH ACADEMY OF ENGINEERING

ENGINEERING & TECHNOLOGY

THOUGHT LEADERSHIP IN A TIME OF GREAT CHANGE

Energy Security

and the Future of Moneypoint Power Station



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THE IRISH ACADEMY OF ENGINEERING

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PREAMBLE

This report has been prepared by the Energy & Climate Action Committee of the Irish Academy of Engineering.

It is the first of a series of issue-specific reports addressing, in greater detail, policy challenges previously identified in *Rebalancing Ireland's Energy Policy* (November 2025) and taking account of developing circumstances since then.

EXECUTIVE SUMMARY

Ireland is an island - located at the end of vulnerable supply chains – with no indigenous energy resources to adequately and reliably meet the country's needs.

These needs are met overwhelmingly by fossil fuels (83%) with only a small contribution from indigenous wind and solar (8%).

Although much more renewables will be deployed over the coming years, the critical dependence on imported fossil fuels will persist up to and beyond 2050 and, for as long as this remains the case, ensuring energy security must be a priority in national energy policy.

Recent events in the Strait of Hormuz have highlighted a known national risk exposure and it is clear that the decision to switch the country's largest power station (Moneypoint) from coal to oil in 2025 - prior to its planned and premature closure in 2029 - was a mistake and this decision needs to be reconsidered:

- If it is not too late, Moneypoint's coal handling equipment and large coal yard should be brought back into operation to have the station available to operate at full capacity for up to 90 days, as and when required.
- If this is not possible, then two additional heavy fuel oil tanks – for which planning permission has been secured – should be constructed to double Moneypoint's oil storage capacity to permit operation for up to 22 days.
- The planned closure in 2029 should be postponed to 2036 to provide strategic energy storage for the electricity system for 10 years while a significantly larger LNG facility than is currently proposed in the State-led Strategic Gas Emergency Reserve project is developed elsewhere.

In addition to Moneypoint providing energy security, the cost of its operation as a power station of last resort over the next 10 years should be evaluated and compared to the cost of procuring an equivalent capacity of new gas turbines. Given that Moneypoint is fully - or almost fully – depreciated, it is likely to be less costly to keep the station available than it will be to replace it with new gas turbines which would operate for a similarly low number of hours.

While operating Moneypoint on coal or oil would result in higher GHG emissions than operating an equivalent capacity of new gas turbines, minimising costs and preserving energy security are equally important considerations alongside GHG emissions reduction.

Notwithstanding that Ireland has made international commitments - confirmed in national law - to be climate neutral by 2050, it is inconceivable that the energy sector can achieve this. Irish energy policy needs to be reformulated based on the country's particular circumstances even if this, in turn, requires seeking reform of EU energy policy to better meet the needs of Member States.

1. INTRODUCTION

Ireland has a mandatory objective, set in national law, to be climate neutral by 2050.[1]

This requires the energy sector to become net-zero.

This, in turn, requires the share of energy services met by electricity to increase from 23% in 2024 towards 100% by 2050 and, in the course of this transition, for GHG emissions from power generation to be eliminated.

This latter requirement is formidable and brings to the fore fundamental challenges including how the standard required of the electricity system – 99.97% certainty that all demand can be met at all times – can be achieved for long periods (measured in weeks or months) when exogenous factors threaten the security of the country's energy supply chains.

Recent geopolitical shocks to energy supply chains (both oil and gas) as a result of the closure of the Strait of Hormuz highlighted the country's extreme exposure. The decision to abandon the strategic storage and power generation capacities at Moneypoint needs to be re-evaluated in the national interest notwithstanding the impact this would have on national GHG emissions reduction targets.

Since the mid-1980s, Moneypoint Power Station provided a major share of national electricity generation capacity and it has also, by design, been a major contributor to the country's energy security.

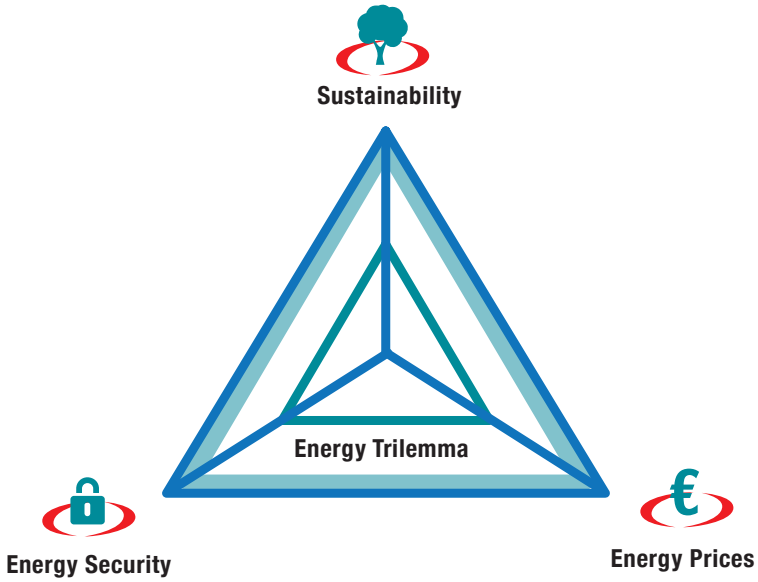
Energy security for electricity generation in Ireland has declined substantially in recent decades as policy has pursued the unachievable objective of a net-zero energy sector by 2050.

This has included the loss of 5 TWh of coal storage at Moneypoint in 2025 in advance of the planned and premature closure of Ireland's largest power station (915 MW) in 2029.

Renewables (wind and solar) currently meet only 8% of Ireland's energy needs. Decarbonising transport and heating by electrification requires a much larger electricity system that continues to be secure and reliable, even if this means an interim reliance on fossil fuels at Moneypoint and elsewhere. Deployment of more wind and solar, other renewables (such as biomethane and geothermal) and storage technologies (including batteries, pumped storage and hydrogen) will not be able to meet this requirement without the backup of fossil fuels for the foreseeable future.

Energy policy needs to consider more than GHG emissions and consider all three legs of the Energy Trilemma to achieve an appropriate balance between sustainability, on the one hand, and energy security and the price of energy for consumers, on the other.

1 *Climate Action and Low Carbon Development Act 2015* and *Climate Action and Low Carbon Development (Amendment) Act 2021.*



Moneypoint should continue to be available to operate, if possible, on coal with a 90 day / 5 TWh strategic coal stock or - if it is too late to reverse the decommissioning of the station's coal handling facilities – with, at the very least, a 22 day / 1.2 TWh stock of heavy fuel oil. The station should remain in operation for at least a decade (to 2036) while alternative strategic energy storage capacity under sovereign control is provided elsewhere, notably by way of a significantly larger LNG facility than is currently proposed in the 1.2 TWh State-led Strategic Gas Emergency Reserve project.

If needs be, Irish energy policy should be reformulated based on the country's particular circumstances to meet the needs of the people of Ireland. This, in turn, would provide the basis for national inputs to reform EU energy policy to better meet the needs of Member States if that is what is ultimately required.

2. IRELAND'S ENERGY SECURITY RISK EXPOSURE

Ireland's energy supplies come, overwhelmingly, from imports – almost 80% in 2024 (**Table 1**).

	With GHG emissions	Without GHG emissions	Totals	With GHG emissions	Without GHG emissions	Totals
Imports						
Oil through ports	85.1 TWh	3.7 TWh	88.8 TWh	50.7%	2.2%	52.9%
Gas in undersea pipelines	39.5 TWh		39.5 TWh	23.5%		23.5%
Electricity via undersea cables		5.1 TWh	5.1 TWh		3.0%	3.0%
Total Imports	***124.6 TWh***	***8.8 TWh***	***133.4 TWh***	***74.2%***	***5.2%***	***79.4%***
Indigenous						
Wind and solar		12.9 TWh	12.9 TWh		7.7%	7.7%
Fossil (mainly natural gas)	11.7 TWh		11.7 TWh	7.0%		7.0%
Other	2.1 TWh	7.8 TWh	9.9 TWh	1.2%	4.6%	5.9%
Total Indigenous	***13.8 TWh***	***20.7 TWh***	***34.5 TWh***	***8.2%***	***12.3%***	***20.5%***
Grand Total	**138.4 TWh**	**29.4 TWh**	**167.9 TWh**	**82.5%**	**17.5%**	**100.0%**

Table1: Primary Energy in Ireland, 2024
Source: *National Energy Balances 1990-2024, SEAI*

While the sources of these imports have proven to be reliable over decades, there have been supply threats from time to time:

- The oil shocks of the 1970s (the OPEC oil embargo during the Yom Kippur War in 1973 and the Iranian Revolution in 1979)
- Decreased reliance in Europe on Russian gas following its invasion of Ukraine in 2022
- The recent closure of the Strait of Hormuz

Ireland responded to energy security of supply threats responsibly in the past. The ESB gradually moved from an over-dependence on peat and hydro in the 1950s to coal and oil in the 1960s. As oil became increasingly cheap, coal became comparatively uneconomic. However, this led to an over-dependence on oil to a point where, in the 1970s, options to move to a mix of oil, nuclear and coal were considered. This ultimately led to the construction of Moneypoint in the early 1980s.

The oil shocks of the 1970s created a focus on energy security which, in time, led to the establishment of NORA[2] Today, NORA maintains 1.7 million tonnes of oil stocks - with an energy content of 21 TWh and a value of €1 billion - to provide security of supply for transport and heating.

In the power generation sector, security of supply was provided by a combination of Moneypoint, the peat stations and by the discovery of gas at Kinsale.

2 NORA: *National Oil Reserves Agency*

During its 42 year lifetime, from 1978, the Kinsale gas field supplied 627 TWh of energy and, in doing this, provided substantial energy security. As the Kinsale field approached the end of its life in 2020, the Corrib field began, in 2015, to supply gas but it too is now declining (**Figure 1**).

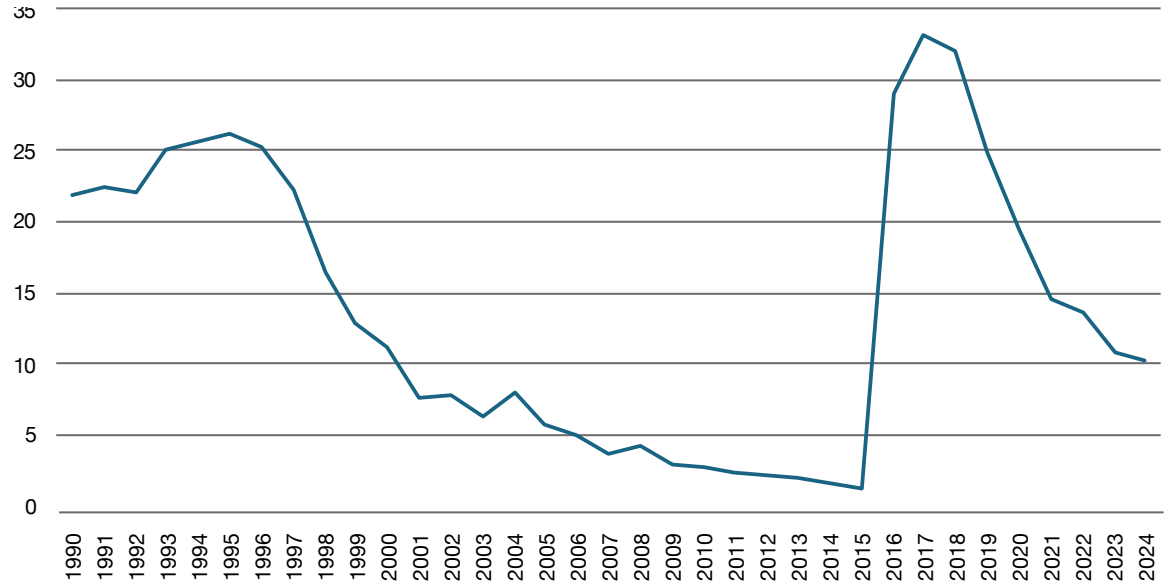


Figure 1: Trends in indigenous natural gas flows, 1990 to 2024, TWh (LHV)
Source: *National Energy Balances 1990-2024*, SEAI

Where Corrib once accounted for 55% of demand, this fell to 16.5% in 2025. By the time Corrib is depleted - within the next ten years - it will have supplied in the order of 210 TWh over its lifetime.

In another example of misguided policy – similar to the bans on nuclear power - Government introduced a legislative ban on new oil and natural gas exploration and licensing in 2021, thereby eliminating an important possible source of future energy security.[3]

Following the cessation of supply from Kinsale, the closure of the peat stations, and given the imminence of Corrib's end of life, Ireland's security of supply for power generation greatly diminished and, in 2025, comprised:

- Coal stocks in Moneypoint for up to 90 days of operation.
- Small volumes of oil stored for dual fuelled gas turbines (natural gas and distillate) for a small number of days.

Since Moneypoint ceased to run on coal in June 2025, the last significant source of energy security for Ireland's electricity system has been lost.

The risk exposure caused by Ireland's dependence on imported fuels has been correctly recognised in National Risk Assessments. As long ago as 2014, Government recognised the potential for energy supply shocks by reference to Russian aggression towards Ukraine - including the annexation of Crimea - eight years before its full invasion:

> *Ireland is completely dependent economically and socially on a secure energy supply – particularly on oil for transport and electricity for everyday life. Ireland imports nearly all of its energy needs, as indigenous energy production amounts to only about 14% of the total primary energy supply.*

3 *Climate Action and Low Carbon Development (Amendment) Act 2021, Section 21*.

> *Ireland's status as an island on the periphery of Europe renders it vulnerable to disruptions to the supply of oil, gas or electricity. Such disruption could arise from natural disaster or geo-political change, as the recent crisis in Ukraine has highlighted.*[4]

This exposure continues to be recognised in the National Risk Assessment – most recently in 2024. Unfortunately, however, the only significant policy response has been the launch of the *Strategic Gas Emergency Reserve* project in the Shannon Estuary, the scale of which – at 1.2 TWh – is self-evidently inadequate compared to the 5 TWh of energy security which Moneypoint provided.

As an island with no indigenous energy resources that can adequately and reliably meet the country's needs - and located at the end of gas supply chains - ensuring energy security is particularly challenging. Ireland has a much larger dependence on fossil fuels than most other European countries (**Table 2**) and provisions to ensure energy security are inadequate.

	Fossil fuels	Renewables, Biofuels and Nuclear	Electricity Imports ("+") or Exports ("-")	Other	Total
Sweden	30.4%	74.0%	-6.1%	1.7%	100.0%
Finland	33.1%	64.7%	0.8%	1.4%	100.0%
France	46.1%	56.5%	-3.5%	0.8%	100.0%
Denmark	52.2%	42.6%	1.8%	3.4%	100.0%
Portugal	60.9%	34.2%	4.0%	0.9%	100.0%
EU - 27	**67.1%**	**31.9%**	**-0.1%**	**1.1%**	**100.0%**
Spain	70.5%	29.7%	-0.7%	0.5%	100.0%
Ireland	**81.8%**	**14.2%**	**3.0%**	**1.1%**	**100.0%**

Table 2: Sources of Primary Energy in selected EU countries, 2024
Source: *Eurostat*

The impact of the decision to close Moneypoint on coal without the provision of any compensating energy security measures is clear from the summary in (**Table 3**).

4 *National Risk Assessment 2014*, Section 2, Page 14

	Current	Past / Putative	Indigenous natural gas
Corrib peak year - 2017			33.6 TWh
Kinsale peak year - 1995			26.2 TWh
NORA (total holding)	21.0 TWh		
Shannon LNG (*consented* 2008 project)		5.6 TWh	
Moneypoint (on coal 1987 to 2025)		5.0 TWh	
NORA (in five tanks on the Poolbeg Peninsula)	1.5 TWh[1]		
Shannon LNG (*proposed* 2023 project)		1.3 TWh	
Moneypoint (on oil to end of life in 2029)	0.6 TWh[2]	1.2 TWh[3]	
State-led Strategic Gas Emergency Reserve *project* (2025)		1.2 TWh	

Table 3: Examples of current and past / putative energy storage capacities compared to peak gas flows from Corrib and Kinsale, TWh (HHV). Notes:

1. Part of NORA's total holding of 21.0 TWh
2. Based on existing 2 x 25,000 tonne tanks.
3. Assumes an additional 2 x 25,000 tonne tanks are constructed under extant planning consent (*319080*). See Section 3

The level of energy security which the Strategic Gas Emergency Reserve will provide contrasts starkly with the energy security which indigenous sources of natural gas provided in the past and is a fraction of the energy security which the coal yard in Moneypoint provided.

3. MONEYPOINT POWER STATION

Moneypoint Power Station (**Figure 2**) compromises three boiler / alternator sets with an aggregate generating capacity of 915 MW. It is located on a 245 hectare site on the Shannon Estuary with access to deep water. The station is connected to load centres in the east of the country by two 400 kV overhead transmission lines. When it was built, it was the largest power station in the country with the capacity to meet nearly 40% of the country's maximum demand at the time.

The station was designed to operate on coal and has a 330 metre long jetty with depth alongside of 25 metres capable of receiving Cape Size bulk carriers carrying up to 180,000 tonnes of coal (with an energy content of 2.1 TWh).

The coal storage yard had a capacity to store 600,000 tonnes of coal with an energy content of 5 TWh. This gave the station the capacity to operate for 90 days at a maximum output of 915 MW to generate 2 TWh of electricity.

The station was commissioned between 1985 and 1987, operated on coal until 2025 and is scheduled to operate on heavy fuel oil (HFO) up to 2029 at which stage it will be decommissioned.

Figure 2: Moneypoint Power Station
Source: *ESB Group*

The station has two 25,000 HFO tonne tanks. Each tank has an energy content of 0.3 TWh.

In 2024, planning permission was granted for works to transition the station away from coal burning and to operate it on HFO only until December 2029.[5] This decision included permission to build an additional two 25,000 tonne HFO tanks. These have not yet been constructed but, if they were built, the HFO energy storage capacity at Moneypoint would increase from 0.6 TWh to 1.2 TWh allowing the station to operate at full capacity for 22 days.

5 An Bord Pleanála decision *319080.*

ESB's plan for the Moneypoint site envisages its redevelopment as a green energy hub – **Green Atlantic @ Moneypoint** - for offshore wind and hydrogen projects as part of the company's **Net Zero by 2040** strategy **(Figure 3**). [6,7]

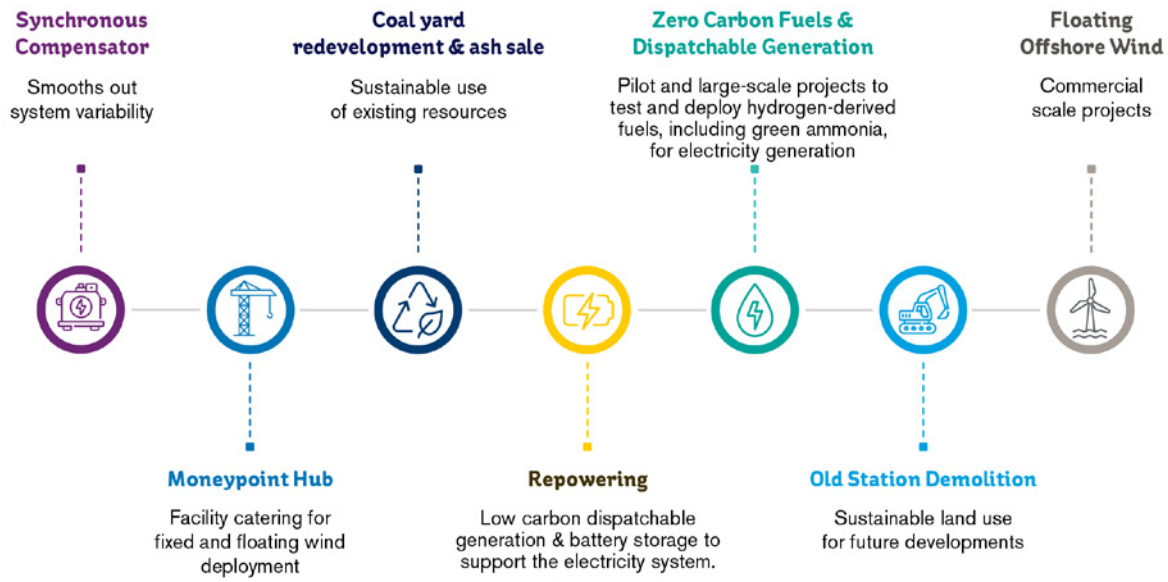


Figure 3: Envisaged programme for the redevelopment of Moneypoint
Source: *ESB Group*

In line with best practice for programmes of large infrastructure projects, a Strategic Environmental Assessment has been prepared.[8] However, consents have yet to be sought either for offshore wind projects or for hydrogen or other redevelopment projects at the site. It is likely, therefore, that the existing power station could be available for a number of years yet. In this report, we have assumed that it might be available to 2036.[9]

6 *Green Atlantic @ Moneypoint*, ESB

7 *Net Zero by 2040 strategy*, ESB

8 *SEA documents*, ESB

9 Britain's last coal fired power station – the 2,000 MW Ratcliffe-on-Soar station – operated for 54 years from 1968 to 2024. By comparison, Moneypoint's planned lifespan is 40 years.

4. HOW MONEYPOINT MIGHT CONTRIBUTE TO FUTURE POWER GENERATION REQUIREMENTS

What happens to Moneypoint power station is important, not only from the perspective of energy security, but also from the perspective of the cost of providing firm and dispatchable generating capacity as a backup to renewables.

Although renewables – wind, solar and hydro – have a power capacity (5,973 MW at end 2024) almost equal to maximum demand (6,012 MW in 2025), the adequacy and reliability of the electricity system critically depend on 5,907 MW of fossil fuelled gas and steam turbine plant (**Table 4**).

	Total Generation Capacity	De-rated Generation Capacity	Derating factor
Renewables			
Renewables	5,973	606	10%
Total Renewables	**5,973**	**606**	**10%**
Fossil Fuels			
CCGT	3,396	2,944	87%
Thermal	1,218	878	72%
Peaker	788	709	90%
Temp Emergency Generation	505	455	90%
Total Fossil Fuels	**5,907**	**4,986**	**84%**
Other			
Demand Side	703	138	20%
Interconnector	900	400	44%
Storage	1,018	449	44%
Total Other	**2,621**	**987**	**38%**
Grand Total	**14,501**	**6,579**	**45%**
% fossil fuel	41%	76%	

Table 4: Total generation capacity and derated generation capacity, Winter 2024 / 2025
Source: *Winter Outlook 2024/25*, EirGrid

Although fossil fuel plant accounts for only 41% of the capacity available, when allowance is made for the intermittency of renewables, for the downtime of fossil fuel plant and for the uncertainty of other power sources – interconnection, storage and demand side units - the dependence on fossil fuel plant increases to 76% to ensure that demand can be met on the anticipated day of highest peak demand (**Figure 4**).

The derating of renewables to 10% of their nominal capacity is the practical manifestation of intermittency in the planning and delivery of the 99.97% reliability standard demanded of the electricity system.

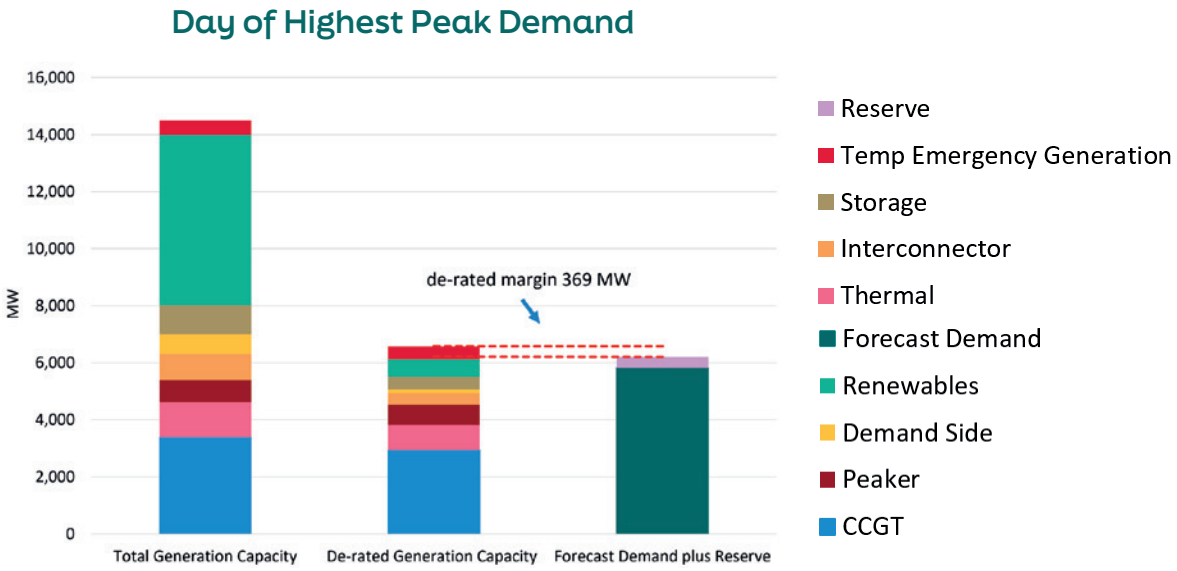


Figure 4: How EirGrid planned to be able to meet peak demand over Winter 2024 / 2025
Source: *Winter Outlook 2025/26*, EirGrid

The 76% capacity contribution from fossil fuel plant to ensure adequacy and reliability includes Moneypoint and the Temporary Emergency Generation (TEG) units introduced following the security of supply crisis of 2021 (**Table 5**).[10]

	Plant	Capacity
TEG 1	North Wall	191 MW
TEG 1	Huntstown	50 MW
TEG 2	Shannonbridge	262 MW
TEG 2	Tarbert	150 MW
Temporary Emergency Generation		**653 MW**
REU[11]	Moneypoint	820 MW
Retention of Existing Units		**820 MW**
Total		**1,432 MW**

Table 5: Capacity provided under the Electricity Security of Supply Programme 2021-2026
Source: *CRU*

10 *Security of Electricity Supply – Retention of Moneypoint Units (MP1, MP2 & MP3)*, CRU
11 REU: Retention of Existing Units

The cost - borne by consumers - of the Temporary Emergency Generation and of retaining Moneypoint in operation has been €1.3 billion over the past four years (**Table 6**).

	EirGrid approved revenue	CRU Reference
2022	€115 m	CRU/21/078
2023	€478 m	CRU202290
2024	€372 m	CRU2024104
2025	€337 m	CRU202482
Total	**€1,302 m**	

Table 6: Revenue approved from 2022 to 2025 to fund the Electricity Security of Supply Programme 2021-2026
Source: CRU

At the same time as the contribution from renewables increases, the amount of firm and dispatchable capacity required to ensure that the electricity system is adequate and reliable will also need to increase in line with demand.

EirGrid's median projections to 2035 for growth in the electricity requirement (**Table 7**) and in maximum demand (**Table 8**) show the need for new additional firm and dispatchable generating capacity in the years ahead.

TWh (energy)	Median	Low	High
2024	35.2 TWh	35.2 TWh	35.2 TWh
2035	49.2 TWh	42.4 TWh	53.9 TWh
AAGR	3.1%	1.7%	3.9%
Doubling in	23 years	41 years	18 years
Extrapolated to 2050	77.7 TWh	54.6 TWh	96.4 TWh

Table 7: Projections of electricity requirement (energy) in 2035
Source: *All-Island Resource Adequacy Assessment 2026–2035,* EirGrid

Max demand (power)	Median	Low	High
2024	6,020 MW	6,020 MW	6,020 MW
2035	7,190 MW	6,320 MW	7,820 MW
AAGR	1.6%	0.4%	2.4%
Doubling in	43 years	157 years	29 years
Extrapolated to 2050	9,160 MW	6,753 MW	11,172 MW

Table 8: Projections of maximum demand (power) in 2035
Source: *All-Island Resource Adequacy Assessment 2026–2035*, EirGrid

In planning the adequacy of generation capacity to 2035, EirGrid anticipates 1,900 MW of new capacity deployment by 2029 based on the outcomes of capacity auctions in recent years in which bids to provide 2,450 MW were successful (**Table 9**).

	New plant successful in capacity auctions	Assumed new Capacity delivery
2026	900 MW	610 MW
2027	1,160 MW	300 MW
2028	50 MW	590 MW
2029	340 MW	400 MW
Totals	**2,450 MW**	**1,900 MW**

Table 9: Assumptions for new conventional plant capacities
Source: *All-Island Resource Adequacy Assessment 2026–2035,* EirGrid , Table 5.2, Page 86

If, as suggested above, Moneypoint is retained until 2036 for security of supply reasons, then there may be a possibility to postpone some of the new additional capacity that EirGrid intends to procure in future capacity auctions. Moneypoint is an old plant - and is substantially or fully depreciated at this stage – and if operated for ten more years, could, potentially, reduce system costs.

Given the impact of Ireland's high electricity prices – with 190,000 domestic customers in arrears for over 90 days in a country of 1.8 million households – this cost saving could lessen the upward pressure on electricity prices. Of itself, it would not do so decisively but the planning of Ireland's electricity system needs to more actively consider the impact on the cost to consumers of every decision to deploy new generating assets, be they conventional or renewable.[12]

In addition to maintaining Moneypoint to provide some degree of energy security for the electricity system post its planned closure in 2029, the possible cost benefit of not proceeding with some of the planned new additional generation capacity over that period should be evaluated.

12 In *Rebalancing Ireland's Energy Policy*, the Academy recommended that the CRU be required to assess the impact on electricity prices of RESS and ORESS auctions before State contracts are awarded by carrying out full system cost benefit analysis based on the price of successful bids.

5. BALANCING EMISSIONS, COSTS AND SECURITY OF SUPPLY

The terms under which Moneypoint operates today, and until its planned closure in 2029, were set by CRU in 2023.[13]

However, circumstances have changed considerably in recent times, and this report recommends that the approach approved in 2023 – which foresaw Moneypoint running to 2025, and subsequently to 2029 – now be changed to allow Moneypoint continue in operation until 2036.

If this recommendation is accepted, the implication for GHG emissions will need to be considered.

Table 10 shows the emission factors for electricity generated using different types of fossil fuels.

Fuel	Emission factor from combustion	Station / power plant type	Indicative conversion efficiency	Emission factor from electricity generation
Bituminous Coal	341 kg CO_2 eq per MWh	Moneypoint	40%	852 kg CO_2 eq per MWh
Heavy Fuel Oil	274 kg CO_2 eq per MWh	Moneypoint	40%	684 kg CO_2 eq per MWh
Natural Gas	184 kg CO_2 eq per MWh	OCGT	30%	612 kg CO_2 eq per MWh
Natural Gas	184 kg CO_2 eq per MWh	CCGT	60%	306 kg CO_2 eq per MWh

Table 10: Emissions factors of different fuels and for electricity generated by each fuel
Source: IAE analysis

Based on these emission factors, **Table 11** shows the marginal annual emissions Moneypoint would generate if run on coal or on HFO at an assumed capacity factor of 10%.

	Assumption	Consequence
Capacity	915 MW	
Assumed capacity factor	10%	
Electricity generated		801,540 MWh
Marginal GHG emissions per MWh on coal	393 kg CO_2 eq per MWh	
Marginal GHG emissions on coal		0.31 Mt CO_2 eq
Marginal GHG emissions per MWh on HFO	225 kg CO_2 eq per MWh	
Marginal GHG emissions on HFO		0.18 Mt CO_2 eq

Table 11: Marginal annual GHG emissions from running Moneypoint on coal or oil over and above emissions from OCGTs / CCGTs for the same output
Source: IAE analysis

An increase in annual national emissions of 0.18 Mt CO_2 eq (HFO) or 0.31 Mt CO_2 eq (coal) would be small by comparison to current and future levels of national emissions and would offset, to a small extent, the substantial emissions reductions which the combination of more renewables and increased electrification (of transport and heating) will deliver.

13 *Security of Electricity Supply – Retention of Moneypoint Units (MP1, MP2 & MP3)*, CRU

How small these marginal increases in GHG emissions are can be seen in the comparisons in **Table 12**.

	GHG emissions reference	Coal	Oil
Marginal annual GHG emissions from Moneypoint (Table 11):		0.31 Mt CO_2 eq	0.18 Mt CO_2 eq
National emissions including LULUCF, 2024	58 Mt CO_2 eq	0.5%	0.3%
Emissions from energy industries, 2024	7 Mt CO_2 eq	4.4%	2.5%
Carbon Budget 2 2025 to 2030 (average annual)	40 Mt CO_2 eq	0.8%	0.5%
Carbon Budget 3 2031 to 2035 (average annual)	32 Mt CO_2 eq	1.0%	0.6%
Sectoral emissions ceiling for electricity 2026-2030	4 Mt CO_2 eq	7.9%	4.5%

Table 12: Comparison of the marginal annual impact on GHG emissions – of running Moneypoint on coal or oil - with current emissions and with various policy targets
Source: IAE analysis

If Moneypoint operated after 2029 and up to 2036, the low impact on annual GHG emissions would be outweighed by the energy security benefits and also, potentially, by the benefits from generation capacity cost reductions.

6. CONCLUSIONS

Decisions on energy policy need to be informed by compromises between competing objectives and achieve a reasonable balance between them.

To date, energy policy decisions have been singularly focussed on the objective of reducing GHG emissions. The result of this has been an unacceptable decrease in national energy security and high electricity prices. The former is highlighted by recent geopolitical events. The latter is evident from the level of arrears on electricity bills.[14]

There are clear negative consequences for energy security from the decision to cease operating Moneypoint power station on coal and there are no current plans in place which will compensate for this.

There is a possibility to continue to operate Moneypoint for a period long enough to allow energy security for the electricity sector to be provided by other means, notably by the development of LNG / geological storage capacity for natural gas. Moreover, if Moneypoint were to operate for another ten years, it could potentially reduce the amount of new additional generation capacity that will have to be procured, thereby reducing the fixed costs of the electricity system to be recovered from consumers.

Notwithstanding that this course of action would increase GHG emissions from what they might otherwise have been, the impact would be relatively small and, when balanced against the other objectives which national energy policy must deliver, the continued operation of Moneypoint to 2036 - on either coal or oil - should be considered.

14 *Arrears and NPA disconnection update January 2026,* CRU

GLOSSARY

Term / abbreviation	Description
AAGR	Average annual growth rate
Capacity factor	A 10 MW generator running for 8,760 hours in a year would generate 87,600 MWh and would have a capacity factor of 100%. In practice generators run fewer hours in the year and not always at their maximum capacity. Their capacity factor is, therefore, less than 100%. In 2025, EirGrid reported that the capacity factor for wind was 26%.
CO_2 eq	CO_2 eq is a common measure used for the climate warming potential of different GHGs. It allows the contributions of different gases to global warming - including carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) – to be added together to give a single overall measure of their combined impacts. The CO_2 eq of a gas is calculated by multiplying its Global Warming Potential (GWP) by the mass of the gas (in kg or tonnes). The GWP of a gas is a measure of its cumulative warming impact over a specified time period usually 100 years, By definition, carbon dioxide (CO_2) has a GWP of 1.
CRU	Commission for Regulation of Utilities
DSU	Demand side unit. A DSU is one or more customer sites which can be instructed by EirGrid to reduce electricity demand when the margin between supply and demand comes under pressure.
FEC	Final Energy Consumption is the energy required to provide services such as transport, heating, lighting and for industrial process (including cement manufacture, factories and data centres). FEC in 2024 was 145.8 TWh or 12,360 ktoe.
FSRU	Floating Storage and Regasification Unit
GHG	Greenhouse gases, including carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O).
HFO	Heavy Fuel Oil
HHV	Higher Heating Value – or Gross Calorific Value - is the total heat released by the complete combustion of a unit of fuel, including the latent heat of vaporisation of water produced during combustion. It represents the maximum theoretical energy available. GNI data for energy flows in the national gas system are expressed in terms of HHV. The HHV for methane (the predominant gas in natural gas) is 15.4 kWh per kg. In this report, the energy content of coal and HFO are based on HHVs of 8.4 kWh per kg and 11.6 kWh per kg respectively.
IAE	Irish Academy of Engineering

Term / abbreviation	Description
LHV	Lower Heating Value - or Net Calorific Value - is the heat released by the complete combustion of a unit of fuel, excluding the latent heat of vaporisation of water produced during combustion. SEAI quotes energy figures for fuels in terms of LHV in the annual National Energy Balance. The LHV for methane (the predominant gas in natural gas) is 13.9 kWh per kg.
LNG	Liquified Natural Gas
MW	Megawatt is a measure of the power output of a generator (or the power demand of a load, such as a factory, a town or a data centre). In power systems, the total power capacity is typically in the thousands of MW and GW is often used instead. 1 GW = 1,000 MW. Steam powered generators (including nuclear, coal and oil fired units) generate electricity at an efficiency in the order of 35% to 40%, i.e. 60% to 65% of the energy in the fuel is transformed into heat and is mostly wasted. Sometimes the output of a nuclear plant is stated in MW_e to clarify that it is the electrical output that is being referred to. In this report, wherever MW (or GW) is used, it refers to electrical output.
NORA	National Oil Reserves Agency
ORESS	ORESS is an abbreviation for the Government's Offshore Renewable Electricity Support Scheme.
PER	Primary Energy Requirement is the combination of the energy content of the fuels (oil, gas and coal) imported into or sourced in the country (gas, peat, waste) and of the energy generated by renewables or imported via interconnectors. Some fuels (notably gas and coal) are, for the most part, used to generate electricity and much of their energy content is lost in this transformation. PER in Ireland in 2024 was 167.7 TWh or 14,420 ktoe.
RESS	RESS is an abbreviation for the Government's Renewable Electricity Support Scheme.
TWh	Terawatt-hour is a unit of energy. 1 TWh = 1,000,000 MWh (megawatt-hours) and 1 MWh = 1,000 kWh (kilowatt-hours). Also, 1 TWh = 86 ktoe.

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Disclaimer

The members of the Taskforce and the contributors participated in extensive discussions in the course of a series of meetings, and submitted comments on a series of draft reports. This report represents the collective view of the Academy, and its recommendations do not necessarily reflect a common position reached by all members of the Taskforce and do not necessarily reflect the views of individual members of the Taskforce, nor do they necessarily reflect the views of the organisations to which they belong.

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ENGINEERING & TECHNOLOGY

THOUGHT LEADERSHIP IN A TIME OF GREAT CHANGE

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