

Below is the transcript of a speech Kathryn Porter (of <https://watt-logic.com/2026/03/14/scotlands-looming-energy-crisis/>) gave at a **Net Zero Watch** event in **Edinburgh on 9 March 2026**:

Good evening, and thank you for inviting me to speak today.

Scotland is often described as an electricity superpower. Not only is that not true, the Scottish grid is actually extremely vulnerable, being held together by just two power stations: Peterhead and Torness.

So critical is this dependence that the National Energy System Operator, NESO, will not allow both to go on maintenance at the same time. Yet within the next 5-6 years both could close.

Today I'm going to talk about grid stability and why Scotland is more vulnerable than the rest of Britain to blackouts. I'm then going to address our ongoing dependence on oil and gas in light of current world events.

We often hear politicians and commentators here in Scotland claiming that with its huge wind resources, Scotland can achieve energy independence. It is an appealing idea. Scotland has vast natural resources, a long Atlantic coastline exposed to powerful prevailing winds, and enormous potential for renewable generation. On paper it can look as though Scotland could produce far more electricity than it consumes.

But electricity systems are more complicated than simply producing energy.

They are made up of physical machines operating in real time. Every second of every day the wires, transformers, generators and control systems that make up the grid must remain in balance. If that balance is disturbed too much the consequences can be immediate. The grid can become unstable. And when instability spreads through a power system it can lead to blackouts.

To understand why, we need to begin with some basic physics. I can see some of you groaning, but it's impossible to understand the risk without understanding something of how power grids actually work, any why the narratives of wind and batteries are dangerously naïve.

Our power grids are built around alternating current, that is current that varies in a regular sine wave pattern over time – this is the conventional shape of a wave that we all think of when we picture a wave. Voltage also varies in the same way.

This electricity is generated utilising some fundamental principles of physics. If you rotate one magnet inside the magnetic field of another magnet you can induce a current in a wire. In our power grids, this happens in conventional power stations.

An external power source is used to power electromagnets mounted on a rotor which is driven by a turbine to rotate inside another electromagnet called a stator. The turbines all power stations turn at 3000 RPM to give a wave that has a frequency of 50 Hz (by dividing 3000 RPM by 60 seconds to get 50 cycles per second also known as 50 Hz)

For the engineers in the room, if you add magnets you can reduce the speed of the turbine, so one magnet with two poles will turn at 3000 RPM but two magnets with four poles will turn at half the speed to give the same frequency, and this is what we have in nuclear power stations.

The entire power grid is structured around these properties: current and voltage alternate at a stable 50 Hz and the size and shape of the voltage wave must remain stable everywhere on the grid. The entire grid is designed around maintaining this stable waveform.

Before a generator connects to the grid it must match the grid's voltage, frequency and phase – that is the peaks and troughs of the waves line up. This process is known as synchronisation. Once connected, the generator becomes electrically coupled to the entire network. All the generators on the grid effectively become parts of the same giant rotating machine – they are both mechanically and electromagnetically coupled to the grid. The synchronisation process ensures that waveforms from all the power stations align so one power station isn't cancelling out the next one.

If electricity demand increases the generators experience greater load and their rotation will tend to slow slightly. The system frequency falls. If generation exceeds demand the turbines will tend to accelerate slightly and frequency rises. These changes are usually extremely small but they are critical signals that tell system operators whether supply and demand are balanced.

You may have heard the term "inertia". This is a property where a conventional power station resists the changes in frequency – falling frequency would try to slow the rotation of the turbines but they are big heavy lumps of metal whose speed is hard to change, meaning they resist those changes and help to keep the frequency stable.

This is important because a lot of equipment can break if the frequency moves away from 50 Hz by too much, including turbines, so they have protection relays that will simply cause them to disconnect if they detect a dangerous frequency level. If your power stations start disconnecting you end up with blackouts so it's pretty important that doesn't happen.

Conventional generators also have electromagnetic inertia which means they also support voltage. Voltage can be thought of as the electrical pressure that pushes current through the network. If voltage rises too high or falls too low equipment can be damaged.

If grid voltage rises, the current in the electromagnets that generate electricity in synchronous generators automatically adjust and act to pull the grid voltage back down.

In both cases – frequency control and voltage control – conventional power stations do this automatically due to their physical properties. They do not require an external control system to detect changes in grid behaviour and instruct the changes.

Wind and solar generators behave very differently. They produce direct current ie current and voltage that do not vary in time. They are converted to alternating current using electronic devices known as inverters.

Inverters work by following what the grid is doing a bit like a game of jump rope – the grid current and voltage are alternating which is like the rope turning, and the inverter is like the child playing – if the rope is turning in a stable and predictable way the child will jump in and skip, and similarly, the inverter will inject its current onto the grid.

But if the grid is not stable the inverter will not inject or stop injecting, just as a child will jump out of the game if the rope starts to turn in an unpredictable way, or at the wrong speed.

These inverters are "grid following" ie they cannot create the current and voltage wave. There are some efforts to develop grid forming inverters that would do this but there are big challenges in their development and so far, there are no such devices in operation anywhere in the world where they are actually forming the grid.

Batteries behave in a similar way, and while batteries and inverters can be used to provide synthetic inertia and voltage control, they cannot do this naturally. They require a control system to instruct

them to act, and they take current away from powering loads to provide this service which makes it expensive because the income they lose must be compensated.

And in the limit, if you had lots of these devices on the grid, to control a voltage problem you could easily create a frequency problem – you take current away from powering loads in order to support voltage and in doing so you are reducing generation which makes the frequency fall.

Frequency is broadly the same everywhere on the grid, but voltage is not. This means it is very important to retain enough synchronous conventional generation around the grid to ensure voltage remains stable. *These constraints are not theoretical. They are rooted in the fundamental laws of physics.*

When we ignore those constraints, electricity systems become fragile, which is exactly what we are seeing in Spain in its solar-dominated grid. Spain has allowed most of the conventional generation in the south to close and is now struggling to control voltage, with the grid operator warning that further blackouts cannot be ruled out.

Before moving on to addressing how these issues are manifesting in Scotland, I want to discuss briefly the Iberian blackout in April last year which cost 11 lives and resulted in an estimated 165 excess deaths over the two days affected by the outage.

There has been a lot of misinformation about the incident, with many renewables advocates insisting it wasn't caused by renewables. I can tell you categorically that it was.

First of all, the grid was very weak with low levels of conventional synchronous generation. A grid fault occurred which was later traced to a faulty solar inverter. This caused both voltage and frequency oscillations. Initially these were damped but they recurred.

Simultaneously, a large amount of solar generation turned off as prices went negative. Negative prices mean you pay the customer to consume the electricity, rather than receiving money for it. Obviously, generators won't produce if it costs them money, so they turned off.

This caused frequency to fall.

In the weakened state of the grid, a large number of wind and solar generators disconnected as a result of this drop in frequency. This was a failure to meet their grid code obligations which required them to be able to ride through drops in frequency of that magnitude.

These further disconnections caused an even larger drop in frequency, this time outside the ride through rules in the grid code. This caused large numbers of conventional power stations and interconnectors to trip off.

That caused a catastrophic drop in frequency – within seconds the entire grid collapsed causing a full system blackout.

So while the original fault was caused by a solar inverter that is in my view irrelevant. Grid faults will always occur and can be caused by all sorts of things. The fact that the Genesis of the blackout was an inverter fault is not really important.

What IS important is that the real cause of the blackout was the failure of inverter-based generation, that is wind and solar, to comply with grid code fault ride through requirements. This failure was not shared by conventional generation and it was THE critical factor in the blackout.

So yes, renewables absolutely did cause the Iberian blackout but not for the reasons most people think.

Scotland faces a similar problem and is now one of the most technically fragile parts of the British grid.

There is another concept that engineers worry about which rarely appears in public discussions about energy policy. That is system strength, which refers to how robust the electrical grid is when disturbances or faults occur.

In a strong system, sudden changes in behaviour from a grid fault or the loss of a large generator or load are absorbed smoothly. Voltages remain stable, equipment continues operating normally, and the system quickly settles back to equilibrium.

In a weak system, the same disturbance can produce large swings in voltage or frequency. Protection systems may operate unexpectedly, equipment including generators may disconnect to protect themselves, and instability can spread across the network.

One way engineers measure system strength is through something called the short circuit level.

When a short circuit occurs, for example when lightning strikes a transmission line, conventional generators produce a very large spike in current because of their natural electromagnetic properties.

Protection systems on the grid have been designed around this behaviour. They use the sudden surge in current to detect the fault and isolate it quickly before it damages other parts of the network.

Unfortunately, inverter-based generation such as wind and solar behaves differently. Most inverters deliberately limit the current they supply during faults in order to protect their electronics.

As synchronous generators disappear from the system, the short-circuit strength of the grid declines. Faults become harder to detect. Protection systems become harder to operate. And disturbances propagate more easily, spreading across the network instead of being contained locally.

This is one of the reasons that synchronous condensers are being installed at several locations across Britain. A synchronous condenser looks almost identical to a conventional generator. It's essentially the same rotating machine, except that rather than having a rotor driven by a turbine, it's driven by power from the grid.

And it doesn't produce electricity.

In other words, we're now installing expensive machines whose sole purpose is to replace services that conventional power stations once provided automatically.

That illustrates a broader point about the energy transition. When synchronous generators disappear, the system does not simply become cleaner and more efficient.

Instead, we have to rebuild the functions of the grid those machines used to provide naturally. And for free. We have to replace simple physical behaviour with complex engineered substitutes.

That's not impossible. But it is neither simple nor cheap. And it is certainly not something that should be taken for granted.

Another factor that is often overlooked is geography.

Electricity systems are not just about how much generation capacity exists. They are also about where that generation is located relative to the transmission network and the centres of demand.

In the British grid, most demand sits in England, particularly in the Midlands and the South East.

Much of the new renewable generation, however, is located far from those demand centres. A significant portion is in northern Scotland, which is why we often hear people saying that if we had locational pricing the north of Scotland would have very cheap electricity.

That could be true but it would also be very unreliable, unless those expensive engineering solutions I just mentioned were added, so the region's electricity would actually not be cheap in practice.

So, with all this generation now located a long way from consumers, it must travel long distances through the transmission network to reach them. Long transmission corridors introduce their own stability challenges.

Voltage becomes harder to control. Power flows become harder to manage. And the system becomes more sensitive to disturbances.

This is one reason why synchronous generators located in strategic positions on the network are so important.

Historically, the Scottish grid had a number of synchronous generators around the country – Torness, Peterhead and others such as the huge Longannet coal-fired power station which closed in 2016.

Longannet did not close at the end of its life. It was closed early for environmental reasons, and its closure was celebrated. But its closure also marked the start of Scotland's grid stability problems.

Today the Scottish grid is supported by just two large power stations: Torness and Peterhead, and some small hydro generation.

Torness is a nuclear power station that sits on the border with England. Electrically it sits in a critical location helping stabilise power flows across the border.

The Peterhead gas fired power station plays a similar role in supporting the northern part of the Scottish network.

Just two plants support an entire national grid region.

But Torness is going to close soon. The current closure date is March 2030. It may be able to extend that by a year or two, but not more. By March 2032, Torness will be closed.

Peterhead was built in 2000 and is also coming to the end of its life. It has pre-qualified for a capacity contract to re-power it (basically a new plant). But there are two major uncertainties around this.

First: will it actually clear the auction? The government has set a procurement target of around 45 GW, a number that appears extremely optimistic. This winter, regular daily peak demand was 45 GW, but the true peak demand on the tightest day was 51 GW.

Procuring only 45 GW assumes peak demand will remain modest, and only covers normal demand, not what we see on the coldest days (when typically wind output is low since the weather systems that bring the coldest temperatures also typically bring low wind).

The second question is about timing. Even if Peterhead does secure a contract, the repowering project requires major equipment. The capacity market assumes you can build your plant in 4 years, but the current lead time for a new gas turbine is 7-8 years.

Even if the equipment can be secured, the project would take at least a year to complete – most likely two years – which would remove Scotland's only major gas plant for the duration of the work.

Right now, the National Energy System Operator, NESO, does not allow both Peterhead and Torness to have simultaneous maintenance outages, and Peterhead often runs, not for the electricity it can produce but for the grid stability it provides.

And if neither Peterhead nor Torness is running Scotland would rely on distant Saltend power station near Hull, a long way from the border and in electrical terms, light years away from the north of Scotland.

Without Torness and Peterhead the Scottish grid could become completely inoperable. Not because it lacks generation capacity but because it lacks conventional generation to form and support the grid.

If Peterhead gets its capacity contract but cannot secure the turbines for 7 years, it will not re-open until after Torness closes. Which is a recipe for disaster for Scotland.

The Scottish grid already has stability issues since the closure of Longannet. These challenges are not theoretical future risks. Scotland already experiences voltage control issues.

There have also been documented cases of sub-synchronous frequency oscillations in Scotland.

Sub-synchronous oscillations are complex phenomena which occur when electrical interactions between generators, transmission networks and power electronics create resonant frequencies within the system which can damage turbines and generators.

They can force plant offline. And in extreme cases they can propagate instability across the network. Such disturbances were detected in Spain prior to the April blackout.

So, what a grid failure would actually look like? When people imagine blackouts they often picture something gradual — perhaps lights flickering and slowly going out.

In reality large power system failures happen extremely quickly. Electricity systems operate on timescales measured in milliseconds.

When frequency falls below critical levels, protection systems act automatically to disconnect generators and equipment in order to protect them from damage. This process can quickly cascade.

Each time a generator trips offline, the remaining generators suddenly have to supply more power. Grid frequency falls, causing more generators disconnect, pulling frequency down further, and within seconds the whole system can collapse.

Which is what we saw in Spain – once the cascade began the grid collapsed within seconds.

In a full system blackout the entire grid shuts down. Transmission lines become de-energised. Power stations disconnect. Cities lose electricity simultaneously. This is why critical sites such as hospitals have backup diesel generators on site which are supposed to instantly fire up to take over from the grid in the event of a blackout.

Restoring power after a blackout is a complex process known as black start.

Large power stations cannot simply restart themselves when the grid is down. They normally require electricity from the grid to start pumps, compressors and control systems.

Black start capability therefore relies on a small number of specialised generators capable of starting without an external electricity supply – usually by means of their own backup diesel generators.

These generators gradually energise parts of the network, allowing larger plants to reconnect step by step. The process of restoring a national grid can take many hours, even days.

During that time transport systems stop functioning. Telecommunications fail. Water systems struggle to maintain pressure. And modern societies, which depend heavily on continuous electricity supply, become extremely vulnerable.

Events like the Iberian blackout remind us that electricity is not simply another commodity. It's the foundation upon which modern societies operate.

Which is why engineers tend to be conservative when designing electricity networks. Reliability isn't an optional extra, it's the central objective.

And that brings us back to the choices currently being made in the British electricity system.

As inverter-based generation increases, frequency and voltage oscillations are becoming more common, and the grid becomes weaker.

Essentially NESO is taking a huge gamble on new technologies to solve this problem. It has been procuring synchronous condensers, grid-forming batteries, flywheels and synthetic inertia systems

These technologies can certainly help, although only synchronous condensers and flywheels are proven to support the grid as they are physically and sometimes also electromagnetically coupled to the grid.

Grid forming inverters and other synthetic inertia systems are still experimental.

But we should be clear about something. These technologies have never been deployed at the scale required to replace multiple large synchronous generators across an entire regional grid.

This is essentially a massive engineering experiment. Being conducted largely without the knowledge and consent of the people of Scotland.

Experiments are not inherently bad. But complex systems rarely behave perfectly when first deployed. They require testing, iteration, and operational experience.

What concerns many engineers is that the current approach appears to assume that these solutions will work immediately and flawlessly. Which is a very optimistic assumption.

So when we talk about the future of Scotland's electricity system, we must remember something simple.

The grid does not respond to ideology or environmental targets – it responds to physics.

And physics does not negotiate.

If the system becomes too weak, instability will appear. If synchronous machines disappear too quickly, frequency and voltage control become harder.

And if we rely too heavily on untested solutions, we take risks with the reliability of the entire system.

The boring engineering details matter.

Before I finish, I want to step back and widen the lens slightly. Electricity is only one part of the energy system. In political debates we often talk about electricity as if it is the whole story. It isn't.

In Britain today we still depend heavily on gas for heating and oil for transport.

Roughly 80% of homes are heated with gas. And almost all road transport still relies on petroleum fuels.

So, when we talk about energy security, we are not just talking about electricity generation. We are talking about the entire energy system. And right now, that system is once again becoming vulnerable.

Many people believed the energy crisis that followed Russia's invasion of Ukraine in 2022 had passed. Gas prices eventually fell from their extreme peaks as new production was developed to replace Russian gas.

But in reality, the underlying vulnerabilities have not been solved. In some ways they have been made worse.

During the crisis many policymakers argued that the lesson was simple: we should build more renewable generation so that we could "get off gas".

But as I have just explained, electricity systems don't work that way. Wind and solar can generate electricity, but they cannot replace the stability services provided by synchronous generators. The engineering to do this is years away from being proven, never mind implemented at scale into our power systems.

And more importantly, replacing oil and gas entirely would require a massive re-engineering of the entire energy system. Heating would need to be electrified across tens of millions of homes. Transport would need to shift almost entirely to electric vehicles, requiring expensive charging infrastructure

Industrial heat would need to be electrified or replaced with hydrogen.

That transformation might happen eventually, although it would be horrifically expensive. But it is not something that can happen in the short or even medium term.

Which means gas and oil will remain essential parts of the energy system for decades. Against that reality, turning our backs on domestic oil and gas production is strategically foolish.

The UK still sits on one of the most mature and technologically advanced offshore energy provinces in the world: the UK Continental Shelf in the North Sea.

For half a century the North Sea has powered the British economy generating hundreds of billions of pounds in tax revenues and supporting vast supply chains across Scotland and northern England.

And it has helped provide the fuels that keep our energy system running.

Yet today the basin is often described as if it were already finished. This is simply not true. The North Sea may be a mature basin, but it's not an empty one.

I'm now in my 6th decade and by most measures am "mature". But I'm some way away from retirement and (touch wood) years away from my ultimate demise. Being mature does not mean being at death's door, thank you very much!

Large recent discoveries in the Norwegian sector, right on our doorstep, demonstrate that significant resources still remain. The Norwegian authorities continue to encourage exploration and development, and companies continue to find new reserves.

The geology does not suddenly stop at the border between the Norwegian and British sectors. Some of these finds almost certainly extend into the UK Continental Shelf. But last year was the first in decades that we did not drill a single new exploration or appraisal well, so we simply don't know.

What we do know is that the geology hasn't changed. Policy has.

The British regulatory and fiscal regime has become increasingly uncertain and punitive. Investment has slowed, projects that might once have been developed are now being delayed or cancelled and operators are shifting their focus overseas.

This matters for several reasons.

First, domestic production provides significant financial benefits to the UK. Oil and gas production generates tax revenues. It supports high-value jobs across the offshore industry, and it sustains a large and highly specialised supply chain.

We're talking about highly skilled jobs, built up over decades, in engineering, offshore operations, subsea technology, marine services, fabrication, maintenance, logistics and geoscience.

These are not low-value jobs that can easily be recreated elsewhere. They are skilled, productive and strategically important jobs, many of them based in Scotland and particularly in the north-east. And they do not exist in isolation.

Around every offshore platform or subsea development sits a much larger economic ecosystem: ports, helicopter operators, vessel operators, engineering consultancies, specialist manufacturers, inspection services, training providers, safety contractors and countless small and medium-sized businesses that depend on a healthy offshore sector.

When production declines naturally over time, that industrial base can adapt. When decline is accelerated by policy, it is far more damaging. Projects are cancelled. Investment decisions are deferred and work moves overseas. And once those capabilities are lost, they are very difficult to rebuild.

That matters not just for the people directly employed in the sector, but for the wider Scottish economy.

The North Sea supports clusters of technical expertise that have taken generations to build. If we hollow them out prematurely, we do not just lose today's jobs, we lose future capability, and that has consequences well beyond oil and gas.

Because many of the skills needed for a realistic energy transition — offshore engineering, subsea construction, marine operations, project management, heavy fabrication — are exactly the skills that already exist in the North Sea workforce.

If we undermine that workforce, we also undermine our ability to deliver whatever comes next. There is a great deal of rhetoric about a "just transition", but it is hard to see what is just about

telling workers in Aberdeen, Aberdeenshire and the wider supply chain that they should accept the destruction of their existing industries on the promise that something else may turn up later.

A transition is only just if there is actually somewhere to transition to. At the moment, too often what is being offered is not a transition but a managed decline. And managed decline has very real consequences.

It means redundancies. It means skilled people leaving the sector permanently and young people deciding not to enter the industry at all. It means companies shifting capital, talent and equipment to other countries with more stable policies.

And once that happens, it does not easily reverse.

So when people talk casually about shutting down the UK Continental Shelf, they are not talking about switching off an abstract source of hydrocarbons like a tap that can easily be turned off and on again. They are talking about shrinking one of the most important industrial and technical ecosystems in the country.

They are talking about fewer jobs, fewer apprenticeships, less investment, weaker supply chains and lower tax revenues. And they are doing this at the exact moment when energy security, engineering capability and industrial resilience ought to matter more, not less.

That is why this debate matters. Because bad energy policy does not just create higher prices and greater import dependence. It destroys skills, industries and communities.

But the economic argument goes further than that. Domestic production also reduces the need for imported fuels. If Britain produces gas from its own continental shelf, that gas flows directly into the national gas network through existing pipelines.

If we don't produce that gas ourselves, we must import it. Often in the form of liquefied natural gas, or LNG. And LNG is expensive, because the gas must be liquefied at specialised export terminals, then it must be shipped thousands of miles by tanker, and then it must be re-gasified at import terminals before entering the pipeline network.

Each of those steps adds cost. Domestic production avoids those costs entirely.

So producing gas at home does not just generate tax revenues. It also reduces the overall cost of energy supply.

The security benefits are equally important. Britain's gas system now depends heavily on three external sources.

First, pipeline imports from Norway. Second, LNG cargoes from global suppliers such as Qatar and the United States. And third, whatever domestic production remains in the North Sea.

Each of those supply routes carries risks.

Norwegian gas has been extremely reliable, but Norway itself is now Europe's dominant supplier and its production capacity is finite.

LNG supply depends on global shipping routes and international markets. Cargoes that might otherwise come to Europe can easily be diverted to Asia if prices are higher there.

Geopolitical tensions can also affect LNG flows. Qatari gas fields are being bombed by Iran and have been shut down. It's unclear when they would be able to re-start production. And Shipping routes through the Strait of Hormuz are also being disrupted by Iranian action, stranding oil tankers.

LNG shipments from Australia must travel large distances to reach European markets, meaning that in practice Europe increasingly depends on US LNG to stabilise the market.

This has worked so far. But it's not something Europe controls, and annoying the US President, as we have recently, is not necessarily a smart choice under these circumstances.

Domestic production, on the other hand, is within our own jurisdiction. It doesn't depend on global shipping routes or international relationships. And that matters in a world where geopolitical tensions are increasing rather than decreasing.

The longer the wars in Ukraine and Iran continue, the more pressure there will be on global gas markets.

That means higher and more volatile prices.

Britain could have insulated itself from some of that volatility by maintaining stronger domestic production. Instead we have allowed investment to decline at the very moment energy security has become more important.

And all of this ignores the upcoming decommissioning time bomb. Under our decommissioning rules, oil and gas companies pay extra taxes when their fields are producing, and receive rebates once they begin the decommissioning process to ensure they have cash on hand to meet those obligations.

The UK has not set aside these prepayments in a special fund. It has spent them.

And when the basin goes into net decommissioning, the Treasury will start paying out £billions per year in rebates to these companies, rather than receiving £billions in taxes.

These payments are not subsidies. They are an integral part of the fiscal system under which those projects were originally approved. If the government were to withhold those rebates, the companies could simply walk away from late-life assets, leaving the taxpayer responsible for the costs of decommissioning which would be a disaster.

Because of the hostile tax environment and the ban on new drilling, the basin will enter net decommissioning years earlier than it would otherwise have done, bringing those huge payments forward. They are now expected to start in the early 2030s.

What we should be doing is maximising the economic recovery of the oil and gas resources we have, while ensuring those decommissioning obligations are ultimately fulfilled. That requires a stable regulatory and fiscal framework.

Unfortunately, the current policy environment is moving in the opposite direction. Investment has been discouraged by repeated changes to taxation and regulation, while the windfall tax introduced during the 2022 energy crisis, has all but eliminated profitability in the sector. Some companies have an effective tax rate of more than 100%.

So, if we're serious about energy security, what needs to change?

First, the windfall tax needs to go and the ban on drilling lifted.

Second, the regulatory framework needs to be reset. The oil and gas regulator should have a clear mandate to maximise economic recovery of the remaining resources. Licensing processes should focus on turning acreage into wells as quickly as possible.

Exploration and appraisal activity needs to increase, not decline.

The system should prioritise fast delivery of new production. Tie-backs to existing infrastructure should be fast-tracked. Simple exploration wells should move quickly through the permitting process.

And the principle of “use it or lose it” should apply to licensed acreage so that resources do not sit undeveloped for years.

Environmental regulation should focus on preventing actual harm rather than creating endless procedural delays. Strict penalties should apply to spills or environmental damage. But routine operations should not be trapped in complex permitting processes that slow development without improving outcomes.

And finally, we need a supportive fiscal regime that encourages investment rather than discourages it.

Exploration and appraisal activity is inherently risky. Tax incentives can help stimulate that activity and ensure that discoveries are developed quickly.

None of this is about abandoning climate goals. The ban on drilling isn't meeting our climate goals, it's making them less achievable as clean domestic production is replaced with dirtier imports. The reality that oil and gas will remain essential parts of the energy system for decades.

And if those fuels are going to be consumed, it is better for them to come from domestic production under strong regulatory oversight than from imports produced under weaker environmental standards.

Energy policy must deal with the world as it is, not the world as we might wish it to be. And that reality is that energy security still depends heavily on oil and gas.

Which brings us back to Scotland.

For decades Scotland has been one of the great energy producing regions of Europe. The North Sea built entire communities, particularly in the north-east. Aberdeen became a global centre of offshore engineering. Scottish companies developed technologies that are used all over the world. Tens of thousands of highly skilled people, built careers in industries that powered not just Britain, but much of Europe.

Today many of those same people are being told that their industries are finished. They are told that oil and gas should simply be shut down, that conventional power stations should disappear, and that wind alone will carry us into the future.

But the reality, as I have tried to explain this evening, is that energy systems do not work that way.

Electricity grids must remain stable. Societies still depend on oil and gas. And the engineering foundations of our energy system cannot simply be wished away.

If we ignore those realities, the consequences will not be abstract. They will be felt in higher energy bills, in greater dependence on imported fuels, in the loss of skilled jobs, and potentially in a less reliable electricity system.

Scotland should be leading Europe in energy engineering, energy production and energy security. Instead, we risk dismantling the industries and capabilities that made that possible.

Energy policy should start from a simple principle: protect what works while building what comes next. Because the goal should not be to weaken Scotland's energy system in pursuit of political slogans.

The goal should be to keep the lights on, keep the economy running, and keep Scotland at the centre of Europe's energy future.

Thank you.