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TRANSPORT | 3 September 2026

Glasgow's M8 Is Being Physically Lifted Off Its Supports This Weekend

Read online: <https://modern.scot/glasgows-m8-is-being-physically-lifted-off-its-supports-this-weekend/>



Engineers will close the eastbound M8 through central Glasgow for extended periods between Friday night and Monday morning while they jack part of the Woodside Viaduct away from the concrete structures that have supported it for more than half a century. The operation is one stage in a repair programme that began after inspections found the motorway's supports were in substantially worse condition than expected.

Late on Friday night, traffic will be removed from a section of the M8 through Glasgow and engineers will begin transferring the weight of part of the motorway from the structures on which it normally rests.

The work will take place on the Woodside Viaducts between Junction 18 at Charing Cross and Junction 16 at Craighall.

Amey, working for Transport Scotland, will jack two triangular crosshead bridge supports beneath the eastbound carriageway.

The eastbound motorway will close between Junctions 18 and 16 from 10pm on Friday 4 September until 11am on Saturday, again from 10pm on Saturday until 6am on Sunday, and from 7pm on Sunday until 6am on Monday.

The westbound motorway will remain open.

Traffic travelling east from further west will be directed towards the M74 and M73. Traffic joining closer to the city centre will use local diversions before returning to the motorway.

The closures are required because the operation involves one of the more unusual engineering procedures now taking place beneath Scotland's motorway network.

The viaduct is being lifted sufficiently for its load to be transferred from deteriorated elements of the original structure into a temporary steel support system.

Once that transfer has been completed, engineers can work on the concrete structure without requiring it to continue carrying the full motorway load above.

This weekend's operation forms part of a programme involving 23 separate supports beneath the Woodside Viaducts.

The temporary works alone are currently estimated at between £126 million and £152 million.

They are not the permanent repair.

The motorway above Woodside opened in 1971

The Woodside Viaducts belong to a particular period in Glasgow's history.

After the Second World War, planners were attempting to redesign a city built largely around nineteenth-century streets for rapidly increasing motor traffic.

Robert Bruce's First Planning Report of 1945 proposed extensive reconstruction of central Glasgow. By the early 1960s, Glasgow Corporation had commissioned detailed proposals for an Inner Ring Road.

Scott Wilson Kirkpatrick and Partners produced the engineering proposals for its northern section.

The north and west flanks of the Inner Ring Road were approved in 1965.

Construction followed in stages.

The Woodside section was delivered through two principal contracts between 1967 and 1971.

Its second stage was dominated by elevated motorway.

Two multi-span viaducts, approximately 365 metres and 460 metres long, were constructed above the existing city.

The elevated design allowed roads including Garscube Road to remain beneath the motorway and enabled the route to cross an already developed urban area.

The viaduct beams were precast from post-tensioned concrete. Individual beams weighed as much as 80 tonnes.

They were supported on reinforced-concrete pierheads carried on piles or concrete foundations.

A casting yard was established beside the works so that large numbers of beams could be manufactured close to the motorway construction site.

By mid-1970 the beams had been installed.

The Woodside section opened in May 1971.

The original construction contract cost about £4 million, equivalent to roughly £50 million in 2023 prices according to the Scottish Roads Archive.

More than half a century later, the temporary engineering now required beneath the viaducts is expected to cost more than twice that inflation-adjusted figure.

Inspections found the supports were in worse condition than expected

The present works began with investigations undertaken in 2020 and 2021 ahead of planned refurbishment.

Engineers carried out intrusive inspections of the viaduct supports.

Transport Scotland says those inspections found that the crossheads were in a much worse condition than anticipated.

Traffic restrictions followed in March 2021.

Lanes were narrowed and slip roads restricted to reduce the load being carried by the structures.

Those restrictions have remained part of the operation of the motorway while temporary support systems have been designed and installed beneath it.

The affected structural elements include half-joints.

A half-joint is a structural arrangement in which the end of one section of a bridge is reduced in depth and supported on a corresponding projecting section of another structural element.

The arrangement can create a compact connection between bridge sections, but it concentrates significant forces into a relatively small area.

The Woodside programme requires the load to be taken away from the affected joints before repairs can be carried out.

That is the purpose of the jacking operation.

The motorway cannot simply be supported from anywhere underneath

Supporting an elevated motorway would be complicated on an empty site.

Woodside is not an empty site.

Beneath the motorway is another layer of Glasgow infrastructure.

Water mains, gas infrastructure, sewers, streets and other services occupy the ground around the viaduct columns.

The Glasgow Subway also passes beneath the area.

Transport Scotland says four of the locations around the subway tunnels require specially designed structures so that the load from the motorway can be transferred to ground outside the tunnel footprint.

Another support requires a steel collar around the existing columns because of underground services nearby.

Each of the 23 locations requires an individual propping design.

Column heights differ.

Span lengths differ.

The widths of the structures differ.

The loads being transferred therefore differ.

The ground beneath them is also occupied by infrastructure constructed at different periods and recorded to different standards.

An underground sewer was not where the drawings said it was

One of the problems encountered during the works demonstrates the difficulty of rebuilding infrastructure inside a city whose underground systems have accumulated over generations.

In spring 2025, engineers discovered a sewer beneath planned piling works.

It was not in the location shown on the available record drawings.

The sewer was also close to the Subway.

The discovery required changes to the work and contributed to delays in the westbound propping programme.

Transport Scotland has said inaccurate records of underground utility infrastructure have repeatedly complicated the project.

The motorway is consequently being repaired in an environment where engineers have to account not only for the original bridge but for infrastructure beneath it that may not correspond precisely with historical records.

The problem is not unique to Glasgow.

Major infrastructure projects in older cities frequently encounter utilities whose location, depth or condition differs from archived plans.

At Woodside, the consequence is magnified because new foundations intended to carry motorway loads cannot be placed through an existing sewer, water main or subway tunnel.

The motorway carries about 150,000 vehicles a day

Transport Scotland estimates that approximately 150,000 vehicles use the Woodside Viaducts each day.

The route forms part of the principal east-west motorway through Glasgow and connects with the wider M8, M74, M77 and M80 network.

Closing the structure for the duration of the repair programme was therefore not the approach selected.

Instead, the temporary propping system has been constructed while traffic continues to use the motorway above.

That decision has shaped much of the engineering.

Construction space is limited.

Work has to coexist with traffic.

Local streets remain in use.

The Subway must continue operating.

Utilities must remain protected.

The motorway itself cannot carry unrestricted traffic until the temporary support system is sufficiently complete.

The jacking taking place this weekend is intended to move the eastbound structure closer to that point.

Jacking transfers the motorway load into temporary steelwork

The engineering principle is relatively direct.

The execution is not.

Temporary steel supports are constructed beneath the viaduct.

Hydraulic jacks then apply controlled force to the bridge structure.

As the jacks take the load, weight is transferred away from the original support and into the temporary system.

The structure is not being raised to create a visibly higher motorway.

The movement required is controlled and limited to what is necessary to transfer the structural load.

Once the transfer is complete, the deteriorated half-joint can be repaired without continuing to carry the same load from the carriageway above.

After permanent structural repairs are eventually completed, the temporary jacks and propping can be removed.

This weekend's work concerns two triangular crosshead supports on the eastbound viaduct.

The closure provides the conditions required to undertake that load transfer without live traffic on the affected carriageway.

The temporary repair has become a major infrastructure project of its own

The first groundworks for the temporary propping began in August 2021.

The first props were installed in February 2022.

Transport Scotland initially expected a substantially shorter programme.

As engineering information developed, both the cost and timetable increased.

By May 2024, Transport Scotland was estimating the temporary works at between £126 million and £152 million.

The same cost range remains current.

The completion timetable has also moved.

Transport Scotland now expects the eastbound propping and jacking to allow lane restrictions to be removed in autumn 2026.

The westbound temporary works are expected to continue into the second half of 2027.

Those dates remain subject to construction conditions, weather and further underground or structural discoveries.

The £152 million does not buy Glasgow a permanent solution

The temporary support programme is intended to allow the motorway to return to full traffic capacity and permit more extensive repairs.

Transport Scotland is separately developing the permanent intervention.

Technical advisers were appointed in 2025 to examine long-term options.

The permanent project is currently at business-case and design-development stage.

Transport Scotland held public engagement on early options in February 2026.

The permanent cost has not yet been established.

The agency says a procurement strategy is being developed and that a cost estimate will be produced to inform the appointment of a contractor.

The eventual solution therefore sits beyond the £126 million to £152 million currently associated with temporary propping.

The temporary system stabilises the viaducts and permits repairs to proceed.

It does not settle how Scotland intends to maintain or replace these structures over the longer term.

Glasgow's motorway was designed during a different phase of the city

The Woodside Viaducts were built as part of Glasgow's Inner Ring Road programme.

Only the north and west flanks of the proposed ring were ultimately constructed.

The motorway reflected the transport assumptions of its period: rising private car ownership, expanding road traffic and large-scale reconstruction of urban transport networks.

Its construction also changed the physical city.

Elevated roads crossed established neighbourhoods and altered street patterns.

The wider Inner Ring Road programme was associated with the extensive redevelopment taking place across central Glasgow during the 1960s and 1970s.

Woodside's elevated motorway was designed to preserve some surface routes beneath it, but the structure itself became a permanent division within the urban landscape.

That history now creates an infrastructure inheritance.

The motorway exists.

It carries traffic volumes of national significance.

Communities and streets exist around and beneath it.

The Subway passes underneath it.

Replacing, rebuilding or substantially altering it would have consequences extending beyond bridge engineering.

Scotland has a generation of infrastructure reaching this age

The Woodside Viaducts are not alone in reaching the later decades of their design life.

Large parts of Scotland's motorway, bridge and trunk-road infrastructure were constructed during the major road-building period from the 1960s through the 1980s.

The Kingston Bridge opened in 1970.

The Woodside section followed in 1971.

Sections of the M8, M9, M90 and other strategic roads belong to the same broad infrastructure generation.

Concrete structures require inspection, maintenance and periodic intervention throughout their lives.

Traffic loading, water ingress, road salt, reinforcement corrosion, joint deterioration and the behaviour of materials over decades all influence condition.

The engineering challenge increasingly involves maintaining infrastructure while it remains heavily used.

Building a new road across an undeveloped site and repairing a fifty-five-year-old elevated motorway above a functioning city are different forms of construction.

Woodside belongs to the second.

This weekend is one operation inside a project that will continue for years

The eastbound closures begin at 10pm on Friday.

For traffic approaching Glasgow from the west, the principal strategic diversion will use the M74 and M73.

Vehicles joining around Anderston and Charing Cross will be directed through local roads before returning to the M8.

Emergency services, bus operators, Glasgow City Council and Transport Scotland have coordinated arrangements for the closures.

Football clubs with fixtures during the weekend have also been contacted because of the effect on journeys through Glasgow.

By Monday morning, the motorway is scheduled to reopen.

The engineering beneath it will continue.

Completion of the eastbound temporary propping is currently expected later this year. Work on the westbound structure is expected to continue through 2027.

After that comes the permanent intervention.

The Woodside Viaducts opened in May 1971 as part of the infrastructure intended to carry Glasgow into the motorway age.

In September 2026, engineers are temporarily transferring sections of that motorway onto new steel structures so that the concrete beneath can be repaired.

The operation taking place this weekend lasts several nights.

The decision about what Glasgow ultimately does with the viaducts will last considerably longer.

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INFRASTRUCTURE | 3 September 2026

The Invisible Infrastructure Running Scotland's Water Is Being Rebuilt for £230 Million

Read online: <https://modern.scot/the-invisible-infrastructure-running-scotlands-water-is-being-rebuilt-for-230-million/>



Scottish Water's new technology contracts began on 1 September. Behind Scotland's reservoirs, treatment works and 64,000 miles of pipes sits another national network: thousands of communications links, operational control systems, cloud platforms and business applications. Two global companies have now taken major roles in running it.

On 1 September 2026, two contracts worth up to £230 million began operating inside Scottish Water.

BT has taken responsibility for networks and security

services under a contract worth up to £130 million.

Accenture has begun an applications management contract worth up to £100 million.

The agreements were awarded in July following a procurement process that began in March 2025. Each has an initial four-year term, with extension options that could take the arrangements to eight years.

The physical water system remains publicly owned.

The technology increasingly used to observe, connect, analyse and manage that system is entering a different phase.

BT says its contract covers approximately 7,000 network connections using broadband, MPLS, satellite and internet services. It also covers a large operational-technology network associated with the delivery of water services.

Accenture will manage core business systems, business-critical applications and Scottish Water's enterprise data platform. The company says its Scotland-based team will operate with staff in Glasgow and will also examine opportunities to use artificial intelligence in asset management, risk analysis and operations.

These systems sit behind an organisation supplying around 1.4 billion litres of drinking water each day, collecting and treating wastewater from more than 2.7 million households and businesses and operating infrastructure distributed across almost every part of Scotland.

The pipes remain the most visible measure of the system.

The digital network is becoming increasingly inseparable from them.

Scotland created one national water company in 2002

Scottish Water is itself the result of a major infrastructure reorganisation.

For much of the twentieth century, water and sewerage responsibilities were connected to local and regional government.

The Local Government etc. (Scotland) Act 1994 removed those services from the regional structure and created three public water authorities: the North of Scotland Water Authority, East of Scotland Water Authority and West of Scotland Water Authority.

That arrangement lasted six years.

The Water Industry (Scotland) Act 2002 created Scottish Water and transferred the assets, liabilities and functions of the three authorities into one national public corporation.

The organisation began operating on 1 April 2002.

The parliamentary case for consolidation included efficiency, consistent charges and the ability to manage the investment required to improve drinking-water and wastewater standards through a single national body.

Scottish Water remains publicly owned and accountable through the Scottish Government, while operating commercially within a regulated system.

The Water Industry Commission for Scotland regulates its economic framework. The Drinking Water Quality Regulator oversees drinking-water quality. The Scottish Environment Protection Agency regulates environmental performance in areas including wastewater discharge.

The organisation now serves 2.62 million households and more than 159,000 business premises.

Its physical estate includes 229 water-treatment works, 1,838 wastewater-treatment works, 30,516 miles of water pipes and 33,691 miles of sewers.

That is more than 64,000 miles of pipe.

A national system of that size cannot now be operated solely through physical inspection and local control rooms.

The water network has acquired a second network

Modern water infrastructure contains equipment that measures pressure, flow, water quality, reservoir levels, pumping performance, treatment processes, sewer conditions and other operational variables.

Pumps can be controlled remotely.

Alarms can be transmitted from isolated sites.

Network conditions can be analysed centrally.

Field staff can receive information electronically.

Data from large numbers of assets can be compared to identify unusual patterns or predict maintenance requirements.

This technology is generally divided into information technology and operational technology.

Information technology covers systems familiar in other large organisations: corporate applications, communications, databases, employee systems, customer systems, finance, analytics and cloud

infrastructure.

Operational technology controls or monitors physical processes.

In a water utility that can include the systems connected to pumps, valves, treatment equipment, reservoirs and other assets involved in physically moving and processing water and wastewater.

BT's new contract reaches across both environments.

The company says it is taking end-to-end responsibility for Scottish Water's connectivity and security estate, including approximately 7,000 network connections and the operational-technology network.

Its model combines network monitoring and cyber-security functions through a converged Network Operations Centre and Security Operations Centre.

Network faults and cyber-security events will therefore be observed within a more integrated operational system.

Scottish Water has already moved most of its computing into the cloud

The new contracts are not the beginning of Scottish Water's digital transformation.

Its 2024-25 Annual Report said approximately 80 per cent of its systems had already moved to cloud environments.

The organisation described its policy as cloud-first and said the remaining legacy systems would progressively be migrated away from locally hosted infrastructure.

Microsoft Azure is identified in the procurement documents as Scottish Water's principal cloud platform.

The tender described a digital estate in which older enterprise applications had increasingly been replaced by software-as-a-service products, while analytics, data science and information management had become core functions.

Scottish Water has also been moving towards software-defined networking.

These changes alter the structure of an infrastructure company.

Historically, much of the technical intelligence of a water network sat within the equipment installed at a treatment works or pumping station and within the experience of the people operating it.

More of that information can now be transmitted, stored, combined and analysed across a national digital platform.

The result is that the condition of physical infrastructure can increasingly be understood through digital information before a person reaches the site.

Accenture will manage the applications and the data platform

The Accenture contract covers what the procurement describes as combined line-of-business and Azure application management.

Accenture says it will manage Scottish Water's core business systems, business-critical applications and enterprise data platform.

The company will operate a dedicated service desk through a Scotland-based team centred in Glasgow.

It has also said it will work with Scottish Water to examine artificial-intelligence applications.

Possible uses identified by the company include anticipating risk, analysing assets and making operational information available more quickly.

This development follows Scottish Water's existing use of analytics.

The organisation has already created dashboards intended to combine customer and community information and has been introducing mobile devices for field workers.

Its 2024-25 report described the deployment of more than 500 tablets to field staff, including devices capable of maintaining connectivity in remote locations.

Scotland creates an unusual operating environment for a digital utility.

Large urban networks in Glasgow, Edinburgh, Dundee and Aberdeen sit within the same national organisation as infrastructure serving islands, remote Highland communities and widely dispersed rural settlements.

Terrestrial broadband cannot provide identical connectivity everywhere.

BT's reference to satellite among the technologies used across the 7,000 connections reflects that geography.

Water has become part of Scotland's cyber-security infrastructure

Scottish Water is legally treated as an operator of an essential service under the Network and Information Systems Regulations 2018.

The regulations apply to sectors where disruption to network and information systems could interfere with essential services.

For Scotland's water sector, the Drinking Water Quality Regulator acts as the competent authority.

Scottish Water therefore operates under cyber-security obligations beyond those applying to an ordinary corporate network.

Its own risk reporting lists cyber security as an increasing organisational risk.

The risk includes deliberate external or internal attack affecting information technology or operational technology.

Scottish Water has reported measures including security patching, vulnerability and threat-management services, security gap analysis, compliance with the NIS Regulations and ISO 27001 certification for its data centres.

The increasing connection between operational equipment and central digital systems creates both capabilities and dependencies.

A disconnected asset can be harder to monitor remotely.

A connected asset becomes part of a larger communications environment that must be secured.

The water industry therefore faces the same engineering problem appearing across electricity, transport, manufacturing and other forms of infrastructure: digital connectivity can improve knowledge and control while expanding the number of systems through which disruption could occur.

The contract replaces a more fragmented supplier structure

The BT arrangement also changes how Scottish Water buys digital services.

BT describes the contract as a move away from a traditional multi-supplier model towards a single integrated network and security service.

Scottish Water's original procurement divided the requirement into several potential lots and combinations.

The final award created two large contracts.

BT received the £130 million converged networks and security operations contract.

Accenture received the £100 million combined line-of-business and Azure application-management contract.

The procurement records three bids for each of the successful awards.

Other possible contract configurations were discontinued.

Consolidation can reduce the number of boundaries between suppliers when responsibility for a fault or security incident has to be identified.

It also concentrates responsibility in fewer external organisations.

Scottish Water retains responsibility for the public service itself. BT and Accenture are contractors rather than owners of the water network.

The contracts nevertheless place substantial parts of the utility's digital operation within long-term commercial relationships with two multinational technology companies.

If all extension options are used, those relationships could continue into the 2030s.

The £230 million sits inside a much larger rebuilding programme

Scottish Water is entering another period of major capital expenditure.

In 2025-26 it invested a record £1.13 billion in water and wastewater infrastructure.

The organisation has proposed a £13.4 billion business plan for 2027 to 2033.

About £8 billion of that proposal is intended for maintaining and improving pipes, treatment works and related infrastructure. The remaining expenditure covers operating and essential costs.

The programme is being developed in response to several pressures occurring simultaneously.

Some infrastructure is ageing.

Population is changing geographically.

Environmental standards are increasing.

Intense rainfall creates pressure on sewer systems.

Long dry periods affect water resources.

Scottish Water reported that 2025-26 began with Scotland's driest start to a year for more than six decades before later periods brought intense rainfall and flooding.

Its physical infrastructure has to respond to both conditions.

Digital systems are increasingly being used to decide where intervention should occur, which assets are under pressure and where capital should be directed.

The physical network is too large to renew at once

Scottish Water's 64,000-mile pipe network contains infrastructure installed over many decades.

Replacing all ageing assets pre-emptively would require enormous capital expenditure.

Utilities therefore use condition, failure history, risk, consequence and other information to determine which assets should be replaced first.

Data becomes part of that investment process.

Pressure monitoring can identify unusual conditions.

Flow data can contribute to leakage analysis.

Wastewater monitoring can provide evidence about network performance.

Maintenance records can be combined with asset age and failure history.

Weather information can be incorporated into operational planning.

Customer reports can be geographically connected to physical assets.

The enterprise data platform managed under the Accenture contract consequently connects to decisions involving physical capital.

A digital system that improves the identification of a failing asset can alter when money is spent on a pipe, pump or treatment process.

The model remains publicly owned while relying heavily on private suppliers

Scotland's water structure differs from England's.

Scottish Water remains a public corporation rather than a privately owned regional water company.

The public model does not mean every function is performed internally.

Construction, engineering, technology, professional services, equipment and other activities are purchased extensively from external suppliers.

The organisation employs around 4,700 people but its investment programme supports a much wider contracting and supply-chain workforce.

BT and Accenture are joining that structure at the digital level.

BT is a UK-headquartered telecommunications company operating extensive network infrastructure.

Accenture is a multinational professional-services and technology company with operations across numerous countries.

Accenture says the Scottish Water service will be locally led through its Glasgow operation.

BT has similarly committed a Scotland-based team.

The published material does not specify the total number of jobs attached to either contract.

It also does not publish a complete breakdown of how the maximum £230 million value would be distributed between labour in Scotland, software licensing, cloud costs, telecommunications infrastructure, security tooling and services supplied elsewhere.

The contract values are maximum values across the available terms, rather than an announcement that £230 million will immediately be spent.

Artificial intelligence is entering the water system through the back office first

Accenture's announcement explicitly identifies artificial intelligence as an area to be explored.

The description is broad.

It does not state that AI will autonomously operate Scottish treatment works or make unsupervised decisions about water supply.

The uses described are centred on risk anticipation, asset performance, data analysis and operational information.

Utilities internationally have been developing machine-learning systems for areas including leakage detection, predictive maintenance, demand forecasting and treatment optimisation.

These systems depend on reliable underlying data.

A pressure sensor transmitting incorrect information can produce incorrect analysis regardless of the sophistication of the model receiving it.

Asset records also have to describe the real physical system accurately.

The first stages of AI adoption in infrastructure therefore depend heavily on less visible work: standardising data, modernising applications, connecting systems, managing identities, securing networks and replacing old software.

The £230 million contracts largely occupy that layer.

Scotland's water infrastructure now has two forms of resilience

The conventional engineering meaning of resilience concerns whether reservoirs, pipes, treatment works, pumping stations and sewer systems can continue functioning when individual components fail or conditions

change.

The digital system introduces another requirement.

Connectivity has to remain available.

Applications have to operate.

Data has to remain accessible and accurate.

Operational systems have to remain secure.

Staff must retain the ability to operate physical infrastructure if individual digital services fail.

Cyber-security and engineering resilience consequently meet inside the same organisation.

Scottish Water's new BT contract brings network and security operations into one service model. Its Accenture contract brings applications and the enterprise data platform under another.

Both arrangements began on 1 September.

The public will continue to encounter Scottish Water primarily through taps, toilets, reservoirs, road excavations, treatment works and bills.

Behind those services, a national digital infrastructure is now being reorganised on contracts capable of running for eight years.

It connects thousands of sites and helps manage an asset base created over more than a century of Scottish water engineering.

Scotland formed a single national water company in 2002 by combining three regional authorities.

Twenty-four years later, the next layer of consolidation is taking place inside the systems used to run it.

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TRANSPORT | 3 September 2026

Scotland Is Rebuilding the Gourock–Dunoon Ferry Link But Has Not Decided How Many Ferries to Build

Read online: <https://modern.scot/scotland-is-rebuilding-the-gourock-dunoon-ferry-link-but-has-not-decided-how-many-ferries-to-build/>



A programme intended to replace ageing passenger ferries and rebuild three Clyde harbours has reached an unusual stage. The original strategic case considered three new vessels. The Scottish Government has now confirmed that the number required for Gourock–Dunoon remains under examination.

Scotland is developing a new generation of passenger ferries for one of the busiest and most unusual transport corridors in the country.

The programme covers Gourock, Dunoon and Kilcreggan. It brings together the redevelopment of Gourock

harbour, alterations at Dunoon and Kilcreggan and replacement passenger vessels for the two routes crossing the Clyde.

On 2 September 2026, the Scottish Government confirmed that its Outline Business Case has still not determined whether the Gourock–Dunoon passenger service should receive one replacement vessel or two.

The answer followed a parliamentary question from Highlands and Islands MSP Tim Eagle asking directly whether the business case related to construction of one or two vessels for Dunoon.

Connectivity Minister Stephen Flynn said the number of replacement vessels was being considered as part of the overall Outline Business Case and would be reported in due course.

A second answer confirmed that the business case remains under development. Once complete, it will go to Transport Scotland's Investment Decision Making Board and then to ministers.

There is no confirmed delivery date for the new vessels.

The Government says a timetable will follow approval of the Outline Business Case and Final Business Case.

CalMac is carrying out life-extension work on the existing vessels to maintain operations in the meantime.

The earlier plan assumed three new ferries

Documents released by the Scottish Government in 2025 show how the programme has developed.

The original Strategic Business Case considered upgrades at Gourock, Dunoon and Kilcreggan alongside three new passenger vessels.

Two would replace the vessels operating between Gourock and Dunoon. A third would replace the vessel

serving Kilcreggan.

Two procurement approaches were examined.

One involved buying three sister ships through a single procurement, reducing design costs and creating vessels with common characteristics.

The other considered a bespoke vessel for Kilcreggan, potentially reducing operating costs on that shorter route.

When Transport Scotland's Investment Decision Making Board approved progression from the Strategic Business Case to the Outline Business Case, it required the underlying policy on routes and vessel provision to be confirmed.

A new Community Needs Assessment followed.

That assessment has altered the assumptions around the future service.

The Government reduced the planned Dunoon timetable

The Community Needs Assessment for Cowal and Rosneath was published in September 2024.

Transport Scotland commissioned Stantec to examine what level of service was required on the Gourock–Dunoon and Gourock–Kilcreggan passenger routes.

The work included community engagement, passenger surveys and consideration of future timetables.

Ministers subsequently decided that the Gourock–Dunoon service should operate 27 daily return sailings rather than the 30 previously timetabled.

The reduction was intended to align the service more closely with identified community need while allowing the replacement-vessel programme to concentrate on reliability.

The decision also changed one of the assumptions feeding into the business case.

A ferry fleet is designed around a timetable.

The number of vessels required depends on crossing time, turnaround, operating hours, maintenance requirements, resilience and the frequency the operator is expected to provide.

Transport Scotland is now determining that relationship through the Outline Business Case.

The present Dunoon ferries were bought second-hand

The reliability problem has a specific history.

The existing Gourock–Dunoon vessels were purchased second-hand by David MacBrayne for the passenger ferry contract that began in 2011.

Scottish Government documents state that they were not designed specifically for the route and have proved susceptible to weather disruption.

The Strategic Business Case identified their condition and reliability as the principal reason for replacement.

This differs from parts of Scotland's wider ferry replacement programme, where vessel age itself is a major driver.

The current Dunoon service operates with MV Ali Cat and MV Argyll Flyer.

Both are passenger-only vessels.

Their replacement is being considered alongside harbour design because vessels and ports have to function as one transport system. Vessel dimensions affect berths, pontoons, passenger access, dredging, breakwaters and manoeuvring requirements.

Gourock–Dunoon was once a car ferry

The present passenger-only service is the result of several decades of competition, subsidy policy and European regulation.

Gourock–Dunoon was historically a passenger and vehicle route within the Caledonian MacBrayne network.

That changed after Western Ferries began operating between McInroy's Point, near Gourock, and Hunters Quay, north of Dunoon, in 1974.

Western Ferries demonstrated that a vehicle service across the Clyde could operate commercially without public subsidy.

The private operator subsequently expanded its fleet and timetable.

Government policy then encountered an unusual problem.

The state was subsidising a ferry carrying vehicles between Gourock and Dunoon while a private company was carrying vehicles commercially on a broadly equivalent crossing nearby.

During the early 1980s, government concluded that the principal public-service case for subsidy related to foot passengers.

The vehicle element of the town-centre service was expected to operate commercially.

Restrictions were also placed on the subsidised service's timetable to limit its effect on the private operator.

The arrangement continued through prolonged discussion with the European Commission over state-aid and competition issues.

In 2005, Gourock–Dunoon was separated from the main Clyde and Hebrides ferry contract and tendered as a single route.

The vehicle-carrying town-centre service continued until July 2011.

Since then, the publicly supported route has carried foot passengers only.

Two ferry systems now cross the same stretch of Clyde

The result is a transport arrangement unlike most of Scotland's ferry network.

CalMac operates the publicly supported passenger service between the town centres of Gourock and Dunoon.

Western Ferries operates commercially between McInroy's Point and Hunters Quay.

The services do not perform identical functions.

The town-centre passenger ferry connects directly into Gourock railway station, giving Dunoon passengers access to trains towards Glasgow.

Western Ferries carries cars, commercial vehicles, buses, cyclists and foot passengers between terminals outside the two town centres.

For a passenger travelling without a car, the Gourock town-centre terminal provides a direct interchange with the railway.

For vehicles, Western Ferries provides the principal Clyde crossing.

Transport Scotland's latest published statistics show the scale of the corridor.

Western Ferries carried approximately 1.3 million passengers in 2024.

It also carried around 617,000 cars and 28,000 commercial vehicles and buses.

Transport Scotland records it as the busiest ferry route within Scotland by passenger and vehicle numbers.

The public investment now being designed therefore sits alongside an established privately operated transport business carrying much of Cowal's road traffic.

The town-centre ferry performs a rail function as well as a maritime one

Gourock station stands immediately beside the ferry terminal.

The railway runs through Inverclyde towards Glasgow Central.

The passenger ferry therefore acts as the missing section of a public-transport journey between Cowal and the central belt.

A resident can travel from Dunoon town centre across the Clyde and continue by rail without using a car.

That relationship has influenced government policy for decades.

A Transport Scotland feasibility study commissioned in 2012 described the policy objective as maintaining a safe, reliable, frequent commuter ferry between Dunoon town centre and the rail terminal at Gourock.

The physical condition of Gourock harbour now forms part of the replacement programme.

Transport Scotland, Caledonian Maritime Assets Limited, CalMac and Argyll and Bute Council are working through a joint Gourock, Dunoon and Kilcreggan programme.

CMAL is responsible for developing the Gourock harbour masterplan and vessel replacement work.

Argyll and Bute Council controls the harbour infrastructure at Dunoon and Kilcreggan.

The programme therefore requires several public bodies to design vessels, terminals and service levels together.

Dunoon harbour itself has to change

Argyll and Bute Council has been developing proposals for Dunoon ferry terminal to accommodate the future passenger vessels.

The preferred concept includes removing the existing linkspan and replacing it with passenger access through a covered gangway to a pontoon.

The harbour would also require dredging.

The existing breakwater is proposed to be extended northwards to provide greater shelter at the ferry berth.

The council says improved shelter should reduce vessel movement at the berth and improve reliability.

The breakwater extension would also provide a berth for the paddle steamer Waverley.

The harbour design is intended to accommodate both existing and future ferries during the transition.

Kilcreggan requires its own infrastructure adjustments for the replacement programme.

The current Kilcreggan vessel, MV Chieftain, is considerably newer than the Dunoon vessels, having been delivered in 2007.

Government documents show that its proposed replacement was driven primarily by accessibility and the possibility of creating greater resilience through interoperability with the Dunoon service.

A common or compatible fleet could allow vessels to substitute for each other when one is unavailable.

One vessel and two vessels create different forms of resilience

The current Outline Business Case is therefore dealing with more than the cost of purchasing another ferry.

A one-vessel Dunoon service would require a different resilience model from a two-vessel service.

Scheduled maintenance, mechanical failure and unplanned repair all remove vessels from operation.

Where a route depends on a single dedicated vessel, another ship must be available elsewhere or the service must be reduced or suspended when that vessel cannot operate.

Two vessels create additional operating capacity but also create additional capital, crewing, maintenance and lifecycle costs.

Interoperability with Kilcreggan could provide another approach if the new vessels are designed to operate across both routes.

The original Strategic Business Case's consideration of three sister ships reflected that possibility.

The revised timetable and Community Needs Assessment have since altered the parameters being tested.

The Government has not yet published the resulting fleet recommendation.

Scotland is already extending the life of the existing vessels

The absence of a confirmed delivery date means the existing ferries must continue operating while the business-case process proceeds.

CalMac is carrying out life-extension work.

The sequence still includes approval of the Outline Business Case, development and approval of the Final Business Case, procurement, vessel construction, harbour works, trials and entry into service.

New ferries cannot simply be ordered independently of the shore infrastructure because the final vessel design and harbour arrangements have to be compatible.

The same issue has appeared repeatedly across Scotland's ferry investment programme.

Vessel procurement and port investment operate on different construction timetables but eventually have to meet at the same berth.

Gourock is part of a wider twenty-year ferry investment plan

The Scottish Government's Vessels and Ports Plan for 2025–2045 sets out a long-term programme for the Clyde and Hebrides and Northern Isles networks.

It includes major vessel replacement, port works and measures intended to increase fleet resilience.

Gourock–Dunoon and Kilcreggan sit partly outside the conventional island-ferry narrative.

Dunoon is connected to mainland Scotland by road through Cowal, and Western Ferries already provides a high-frequency commercial vehicle crossing.

The public passenger route nevertheless performs a specific transport function by connecting the town directly with Gourock and its railway.

The investment decision is therefore being made around the value of that public-transport connection rather than around the absence of any alternative route.

The Community Needs Assessment was commissioned to establish the scale of that requirement before new vessels and harbour infrastructure were committed.

The next document should put a number on the future service

The Outline Business Case remains the point at which the programme's principal options are being compared.

It will have to bring together future passenger demand, timetable requirements, vessel reliability, resilience, harbour works, capital cost and operating cost.

It will also determine whether the original concept of two Dunoon replacement vessels survives the revised service assessment.

Once the Outline Business Case is complete, it is scheduled to go first to Transport Scotland's Investment Decision Making Board and then to ministers.

A Final Business Case will still be required before the programme reaches its later delivery stages.

The Government has not given a date for the arrival of new tonnage.

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INFRASTRUCTURE | 3 September 2026

Glasgow Is About to Manufacture 100 Million Lasers a Year for the AI Economy

Read online: <https://modern.scot/glasgow-is-about-to-manufacture-100-million-lasers-a-year-for-the-ai-economy/>



A semiconductor manufacturing plant in Lanarkshire is being expanded to produce more than 100 million lasers a year. The components are measured on the scale of a chip, but they are becoming part of the physical infrastructure required to move data between the machines running artificial intelligence.

Sivers Semiconductors announced on 3 September that it will invest US\$30 million in its photonics manufacturing operation at Hamilton International Technology Park in Blantyre, near Glasgow.

The investment will expand the plant's capacity to more than 100 million continuous-wave distributed-feedback lasers a year.

The expansion begins during the second half of 2026 and is expected to become operational in the final quarter of 2027.

New manufacturing processes and additional automation will be installed. Sivers is also changing the way it manufactures photonic semiconductors, increasing production inside Scotland while retaining external foundry, packaging and manufacturing partners, including partners in Asia.

The company calls the model Hybrid Manufacturing.

The immediate market is the infrastructure being constructed around artificial intelligence.

AI computing is normally described through processors, data centres and electricity. Behind those systems is another physical requirement: enormous quantities of information have to move continuously between processors, switches, servers and racks.

Electrical connections become increasingly difficult as data rates, distances and computing density increase. Optical communications use light to move information through fibre at very high speeds.

The Glasgow factory makes semiconductor lasers that generate that light.

Why an AI computer needs lasers

A modern AI data centre is not one computer.

It contains large numbers of processors operating together. Training and running large AI models can require information to pass repeatedly between graphics processing units, specialised accelerators, memory and networking equipment.

As computing clusters become larger, communication between those machines becomes part of the

engineering problem.

Photonics converts electrical information into optical signals that can travel through fibre.

Sivers manufactures indium phosphide semiconductor devices used for this purpose.

Indium phosphide, usually abbreviated to InP, is a compound semiconductor. It has properties that make it useful for producing lasers and other high-speed optical devices.

The technology differs from the silicon chips normally associated with computing.

Silicon is highly effective for logic and conventional electronic circuits. Compound semiconductors can perform functions that silicon alone cannot perform as efficiently, including generating light at wavelengths used in optical communications.

The continuous-wave distributed-feedback lasers being expanded in Glasgow provide stable optical output that can be integrated into high-speed communications systems.

Sivers says demand is increasing as data-centre operators move towards faster optical networking and place optical connections progressively closer to processors and network switching chips.

The company is working across several architectures, including conventional pluggable optical systems, near-packaged optics and co-packaged optics.

Those technologies differ in where the optical components sit inside computing infrastructure.

The general direction is towards moving optical communication closer to the computing hardware as the amount of data being transferred increases.

The Glasgow operation existed before the present AI boom

The factory is not a new arrival created by the current investment cycle.

Its history runs through CST Global, a University of Glasgow spin-out established to commercialise compound-semiconductor technology.

The company's own historical account and the University of Glasgow's published case study give different dates for the original foundation of CST Global. Both record the company's origins in University of Glasgow semiconductor research and its later development into a commercial photonics manufacturer.

The present manufacturing location entered the story in 2010.

CST Global acquired the Intense wafer fabrication operation at Hamilton International Technology Park and took over its manufacturing facility.

The plant became the company's production base.

By 2016, CST Global had reached production of one million distributed-feedback lasers a month.

In 2017, Swedish technology company Sivers IMA Holding acquired CST Global. The acquisition was accompanied by investment in manufacturing equipment and product development.

The business was subsequently renamed Sivers Photonics as the parent company became Sivers Semiconductors.

The manufacturing operation remained in Scotland.

The University relationship continued after the spin-out

The connection with the University of Glasgow did not end when the company became independent.

Research and manufacturing continued to cross between the university and the commercial operation.

One of the central institutions in that relationship is the James Watt Nanofabrication Centre.

The centre began operating in 2006 and now contains around £35 million of equipment for nanoscale research and fabrication.

Its electron-beam lithography systems can create patterns measured in nanometres. That capability has been used in the development and manufacture of semiconductor laser components.

The University says its researchers worked with CST Global and later Sivers on advanced fabrication methods and laser development, including devices for optical-access networks and later data-centre applications.

Kelvin Nanotechnology, the University's commercial nanofabrication subsidiary, also participated in the manufacturing relationship.

In 2017, CST Global and the University agreed to install and operate a metalorganic chemical vapour deposition machine at the company's foundry.

The equipment was owned by the University but operated within the commercial manufacturing facility, allowing research work and production capability to occupy the same industrial environment.

The arrangement also provided university researchers and students with access to commercial semiconductor manufacturing.

By March 2026, Sivers told the University that technology developed through the relationship had contributed to the shipment of 45 million advanced lasers across applications including optical networks, sensing, LiDAR and AI data centres.

The new manufacturing target is more than twice that cumulative number every year.

From one million lasers a month to more than 100 million a year

The production numbers show how the market has changed.

CST Global recorded the milestone of shipping one million distributed-feedback lasers per month in 2016.

The expanded Glasgow operation is being designed for annual capacity above 100 million continuous-wave distributed-feedback lasers.

That is manufacturing capacity rather than a guarantee that 100 million devices will be sold every year.

Sivers says the investment is being made in anticipation of customer production programmes expected to increase during 2027.

The company's latest financial reporting shows why it is expanding before all of those orders have arrived.

On 1 September, two days before announcing the Glasgow investment, Sivers reported that its commercial opportunity pipeline had increased to US\$1.2 billion by the end of July, up 268 per cent from December 2025.

The company also reported production orders in its photonics and wireless businesses and said several AI data-centre programmes were moving towards qualification and potential production during 2027.

Sivers raised 700 million Swedish kronor during the second quarter of 2026 and said part of that capital would be used to expand Glasgow manufacturing.

The company is therefore committing manufacturing capacity ahead of the full conversion of its AI opportunity pipeline into production revenue.

Semiconductor manufacturing requires that sequencing because equipment has to be ordered, installed, qualified and integrated into production before customer demand reaches full volume.

Scotland has a photonics industry larger than most people encounter directly

The Sivers plant sits inside a wider Scottish industry concentrated around Glasgow and central Scotland.

A UK Government semiconductor sector study published on 2 September 2026, one day before the Sivers announcement, describes Glasgow as one of Britain's most substantial and historically established concentrations of semiconductor and photonics capability.

The study estimates that Scotland's photonics industry generates more than £1.2 billion in annual turnover, employs approximately 6,400 people and exports 97 per cent of its output.

More than 50 companies form part of the Photonics Scotland network.

The industrial base includes laser manufacturing, optical communications, sensing, quantum technology, semiconductor fabrication and specialised equipment.

The academic infrastructure includes the University of Glasgow, the University of Strathclyde's Institute of Photonics and the Fraunhofer Centre for Applied Photonics.

The sector study also identifies semiconductor manufacturing and design capabilities elsewhere in Scotland, including silicon wafer production at Livingston, semiconductor design in Edinburgh, silicon fabrication at Glenrothes and silicon-carbide manufacturing in Fife.

These activities do not form a single vertically integrated Scottish semiconductor industry. Different companies occupy different parts of global supply chains.

The Sivers factory occupies one specialised section: compound-semiconductor photonics.

The factory is Scottish; the manufacturing system is international

Sivers Semiconductors is headquartered in Kista, Sweden.

Sivers Photonics has its headquarters and manufacturing operation in Scotland.

The company's manufacturing strategy combines the Glasgow plant with external foundries, packaging companies and other manufacturing partners.

Sivers says its long-term model is intended to maintain approximately one unit of internal indium-phosphide laser capacity for every two units available through partner foundries.

The US\$30 million investment therefore does not represent an attempt to bring the entire supply chain into Scotland.

It increases the amount of strategically important manufacturing that Sivers controls directly while retaining outside capacity.

The company says this provides flexibility if customer demand rises quickly and reduces dependence on a single manufacturing route.

That approach reflects the structure of modern semiconductor production.

Design, wafer fabrication, lithography, epitaxy, testing, packaging and assembly can take place in different facilities and different countries.

The finished optical component can therefore contain Scottish manufacturing and intellectual property while remaining part of an international production system.

AI infrastructure is creating demand far beyond the processor

The investment also shows how the economics of artificial intelligence extend beyond the companies manufacturing GPUs and building data centres.

The UK Government's semiconductor study says worldwide semiconductor sales reached US\$796 billion in 2025, an increase of 39 per cent since 2022, with AI computing identified as the principal driver of recent growth.

That demand reaches into memory, power electronics, networking, advanced packaging and photonics.

Increasing computing power without increasing the ability to move information between processors creates another constraint inside the system.

Optical interconnects are one response.

The result is that a manufacturing plant in Lanarkshire can participate directly in the global AI infrastructure buildout without manufacturing AI processors and without operating a data centre.

Its product occupies the communications layer between computing systems.

Glasgow's role was built through research infrastructure as well as companies

The history of the Sivers operation also records how an advanced manufacturing capability can develop over decades.

University research produced semiconductor knowledge and specialist fabrication capability.

A spin-out converted part of that work into a commercial company.

The company acquired an existing fabrication plant rather than constructing its manufacturing base entirely from the beginning.

University equipment and expertise continued to support product development.

Volume telecommunications contracts created manufacturing experience.

Foreign ownership brought further capital while production remained in Scotland.

Those stages occurred before the present demand for AI optical infrastructure.

The James Watt Nanofabrication Centre celebrated its twentieth anniversary in March 2026. The University says it has supported almost 200 high-technology companies and now conducts more than 100 electron-beam lithography jobs each week.

Its equipment has supported research ranging from semiconductor lasers to quantum devices, sensors and nanoscale electronics.

The commercial relationship with Sivers provides one route from that research infrastructure into repeated industrial production.

The investment comes one day after the UK published a new map of semiconductor capability

The timing places two separate announcements beside each other.

On 2 September, the UK Government published its Semiconductor Sector Study 2026.

On 3 September, Sivers announced the US\$30 million Glasgow expansion.

The government study identifies 703 companies involved in UK semiconductor activity, including 295 dedicated semiconductor businesses.

It estimates that dedicated companies generated £10.6 billion of revenue and £7.5 billion of gross value added in 2025 and directly employed around 16,350 people.

The study describes the UK industry as a collection of regional specialisms rather than a domestic version of the enormous fabrication industry found in East Asia.

Glasgow's specialism is photonics and compound-semiconductor technology.

The report identifies access to skilled workers, scale-up capital and operating costs, particularly energy, among the constraints reported by semiconductor businesses.

Sivers' investment represents a private decision to expand physical production within that environment.

The next phase will be manufacturing rather than laboratory development

The Glasgow operation has already produced millions of semiconductor lasers.

The US\$30 million programme is intended to change its scale.

Sivers says the expansion will increase automation, add manufacturing processes and provide capacity for more than 100 million lasers annually.

The facility is expected to become operational in the fourth quarter of 2027.

The company has not announced that all of that capacity is already contracted.

Its investment is based on anticipated customer production ramps and increasing demand across AI data centres and optical networking.

The commercial outcome will therefore depend on customer qualification, production orders and the speed at which optical architectures are adopted inside future computing systems.

The industrial asset will remain in Lanarkshire regardless of which individual customer programme reaches volume first.

For more than a decade, the Hamilton plant has manufactured semiconductor lasers for communications and sensing markets.

The current investment is designed to move it into a different production range.

The global AI infrastructure programme is usually visible through enormous data-centre buildings, electricity connections and the processors installed inside them.

In Scotland, one part of that infrastructure will be considerably smaller.

It will leave a semiconductor fabrication plant near Glasgow in quantities that Sivers expects could exceed 100 million devices a year.

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INFRASTRUCTURE | 3 September 2026

Scotland's Railway Was Built for Another Climate. £400 Million Is Now Being Spent to Keep It Running

Read online: <https://modern.scot/scotlands-railway-was-built-for-another-climate-400-million-is-now-being-spent-to-keep-it-running/>



Scotland is two years into a £400 million programme to protect its railway from heavier rainfall, landslips, flooding, coastal weather and higher temperatures. The work reaches back through almost two centuries of railway engineering and through the lessons of Carmont, where extreme rainfall exposed how failures in drainage and earthworks can become failures of the railway itself.

Network Rail disclosed on 2 September that £130

million has been spent during the first two years of a five-year programme intended to make Scotland's railway more resilient to extreme weather.

The programme runs from 2024 to 2029 and has a total value of approximately £400 million.

Of the £130 million spent so far, £73 million has gone into earthworks and £37 million into drainage.

Another £20 million has been spent on the West Coast Main Line improving soil slopes, rock slopes and drainage systems intended to reduce landslips, rockfalls and flooding.

The Highland Main Line has received £2.85 million for drainage and earthworks. Approximately £2 million has been spent stabilising the steep rock face beside the Edinburgh to Glasgow railway at Ratho. £3 million has gone into strengthening the hillside above the West Highland Line at Falls of Cruachan following a landslide. Another £850,000 has been spent between Aberdeen and Inverness to improve the railway's ability to cope with heavier rainfall.

Much of the work is taking place away from stations and trains.

It is happening in drains, culverts, cuttings, embankments, rock faces and slopes: parts of the railway that passengers may never see but which determine whether the track remains physically secure when large quantities of water move through the landscape.

A railway inherited from the nineteenth century

Large parts of Scotland's railway geography were established during the nineteenth century.

The Edinburgh and Glasgow Railway opened in 1842. The Caledonian Railway reached Glasgow from Carlisle in the 1840s. The Highland Main Line developed through a sequence of Victorian railways and reached Inverness from Perth in 1863. The West Highland Line opened to Fort William in 1894 and was extended to Mallaig in 1901.

Those routes required engineers to cut railways through hillsides, build embankments across valleys, cross rivers and burns, construct coastal sections and control water around thousands of structures.

Many of those railway corridors remain in use.

The rails, signalling and structures have been repeatedly renewed, but the underlying geography often remains the geography chosen by Victorian engineers.

A cutting remains a cutting. An embankment remains an embankment. A railway following a loch, river valley or coastline remains exposed to the surrounding terrain.

Modern climate adaptation therefore involves modifying infrastructure whose original alignment was determined long before contemporary climate projections existed.

Water is one of the railway's oldest engineering problems

Railways require controlled drainage because water changes the physical properties of the ground supporting them.

Rain falling on higher land can travel towards a railway through soil, rock, streams, ditches and drainage systems.

If water cannot escape effectively, it can saturate an embankment, erode material beneath track, overwhelm a culvert, destabilise a cutting or carry debris onto the railway.

Drainage assets themselves can fail through blockage, deterioration, inadequate capacity or changes in the surrounding landscape.

Scotland's railway contains thousands of drainage assets distributed across a network passing through mountains, agricultural land, cities, forests, river valleys and coastal areas.

Climate change alters the assumptions under which those systems are maintained.

Network Rail's Scotland Climate Ready Plan identifies increasing temperatures, changing rainfall patterns and more frequent severe-weather events as long-term risks to railway infrastructure.

The engineering response is no longer limited to repairing damage after an event.

The current programme increasingly attempts to identify where failure could occur before it happens.

Carmont changed the railway's understanding of rainfall risk

On 12 August 2020, the 06:38 Aberdeen to Glasgow Queen Street service was returning towards Aberdeen after a blockage was reported ahead.

Near Carmont, south-west of Stonehaven, the train struck debris that had been washed onto the railway and derailed.

Three people died: driver Brett McCullough, conductor Donald Dinnie and passenger Christopher Stuchbury. Six other people on the train were injured.

The Rail Accident Investigation Branch subsequently reconstructed what had happened on the hillside above the railway.

Near-continuous heavy rain had fallen between approximately 6am and 9am.

RAIB calculated that 51.5mm of rain fell at the accident site during those three hours, close to the average rainfall for the entire month of August in that part of Scotland.

The train struck material washed from a drainage trench.

The drainage system had been constructed in 2011 and 2012 as part of work intended to address drainage and slope stability.

RAIB found that the drainage system and associated earthworks had not been constructed in accordance with the original design.

A low earth bank had also altered the movement of water across the slope.

During the extreme rainfall, concentrated water flow entered a steep section of the drainage trench and washed out gravel and surrounding ground. Debris reached the track.

RAIB made 20 recommendations following its investigation.

They included changes to the management of civil-engineering work, drainage design, the railway's operational response to extreme rainfall, weather information, route control and the way lessons from previous incidents are implemented.

The response went beyond Carmont

Network Rail commissioned two independent reviews after the derailment.

Dame Julia Slingo, the former chief scientist at the Met Office, examined weather forecasting and how the railway could make better use of information about extreme rainfall.

Professor Lord Robert Mair of Cambridge University examined earthworks and drainage.

Further reviews followed the extreme heat of July 2022, examining heat forecasting, track and overhead-line engineering, operational weather management and communication during disruptive events.

Scotland's railway subsequently established a Weather Risk Taskforce involving Network Rail, ScotRail and Transport Scotland.

The changes have altered both engineering and operations.

A weather desk staffed by trained meteorologists now operates within Scotland's Railway Integrated Control.

Network Rail has expanded aerial inspection capability and maintains a dedicated helicopter at Cumbernauld for earthworks inspections and surveys.

A Slope Safety Review Group meets regularly.

Wireless tiltmeters have been deployed at 130 locations to provide live detection of ground movement.

Drainage inspection resources have increased.

Geotechnical teams have been expanded.

The railway is also making greater use of remote monitoring so that changes in infrastructure condition can be detected before a visible failure occurs.

The £400 million is not one construction project

Unlike a new railway, station or bridge, climate resilience is distributed across the existing network.

The current programme contains many individual interventions.

Some involve drainage.

Others involve stabilising soil slopes or rock cuttings, strengthening embankments, installing monitoring equipment or changing how vegetation and water are managed around railway land.

At Falls of Cruachan on the West Highland Line, Network Rail has been strengthening the hillside following a landslide.

At Ratho, engineers have worked on a steep rock face beside one of Scotland's busiest railway corridors.

On the Highland Main Line, investment is being directed into drainage and earthworks.

On the West Coast Main Line, the programme combines work on soil slopes, rock slopes and water management.

The geographic spread reflects the different ways weather affects the network.

A railway through the Highlands faces different terrain from an urban railway through Glasgow.

A coastal section faces different exposure from an inland cutting.

The engineering programme therefore depends increasingly on location-specific risk rather than a single national solution.

Scotland recorded more than 127,000 minutes of weather-related railway delay last year

The Scottish Government's latest National Adaptation Plan annual report records 127,565 minutes of weather-related train delay during 2025-26.

That was an increase on the previous year.

The Government cautions that annual figures are strongly influenced by the number and severity of storms during a particular year and says a longer time series will be required before a reliable trend can be established.

The Office of Rail and Road has separately identified weather as one of the major causes of Network Rail-attributable delay in Scotland during 2025-26.

The financial cost of weather therefore extends beyond damaged infrastructure.

A blocked railway affects passenger journeys, train crew and rolling-stock movements, freight, timetable recovery and connections elsewhere on the network.

Where a route has limited alternatives, disruption can have a larger geographic effect.

That is particularly relevant in parts of rural Scotland where a single railway corridor provides the principal rail connection over long distances.

Extreme rainfall is only one climate risk

Higher temperatures create different engineering problems.

Steel rail expands in heat.

Overhead electrical equipment can respond to temperature changes.

Structures, buildings and signalling equipment have operating tolerances.

Vegetation conditions change during prolonged dry weather, increasing fire risk beside railway infrastructure.

Storms can bring trees and other debris onto the railway.

Coastal infrastructure can be exposed to wave action, erosion and rising sea levels.

Cold weather remains part of the Scottish operating environment even as average temperatures increase.

The railway therefore has to become more resilient to a wider range of conditions rather than simply becoming a railway designed for warmer weather.

The regulator says long-term adaptation still needs work

The Office of Rail and Road continues to scrutinise Network Rail's climate adaptation.

Its 2025-26 assessment says weather resilience and climate-change adaptation remain a high priority across the railway.

The regulator reports continued installation of earthworks monitoring equipment, trials of new flood-detection technology and development of natural flood-management approaches.

It has also identified weaknesses.

ORR's wider asset-management assessment says some Network Rail strategies remain too short-term and reactive and need to develop into longer-term asset-sustainability planning.

A separate ORR-commissioned review published in May 2026 examined climate adaptation for Network Rail's operational buildings.

That review found a strong overarching framework but variable application to individual buildings, with limited building-specific climate-risk assessment and adaptation measures in some areas.

The railway's climate problem therefore extends beyond track and earthworks to stations, depots, signalling buildings and other operational property.

Engineering standards are changing because the past is no longer a sufficient guide

Traditional infrastructure design frequently uses historical records to estimate the probability of future

events.

A drainage system might be designed around a rainfall event expected statistically once in a specified number of years.

Climate change complicates that method because the future frequency and intensity of rainfall may not match the historical record.

One of the recommendations following Carmont required Network Rail to reconsider drainage procedures so designs account for appropriate water-flow return periods and climate-change allowances.

The regulator subsequently reported that Network Rail had overhauled its approach to the lifecycle of water management, including design, installation and maintenance.

Modern survey technology is also changing the available evidence.

LiDAR can produce detailed three-dimensional information about terrain.

Remote sensors can detect ground movement.

Weather forecasting can be connected more directly to operational decisions.

Aerial surveys can examine large areas after heavy rainfall.

Those systems allow the railway to treat weather increasingly as a measurable infrastructure risk rather than an external event that begins only when damage occurs.

Some of the future railway budget will be spent protecting what Scotland already has

Infrastructure investment is usually associated with expansion: new lines, electrification, stations, faster journeys or additional capacity.

Climate adaptation creates another category of expenditure.

Money is required to preserve the reliability and safety of infrastructure that already exists.

The £400 million Scottish resilience programme illustrates the scale at which that is beginning to occur.

The expenditure does not create 400 miles of new railway or a new intercity route.

It strengthens the network against environmental conditions that are changing around it.

That creates a different calculation for long-term infrastructure planning.

If more capital has to be allocated to drainage, earthworks, coastal protection, monitoring and recovery from severe weather, those costs become part of maintaining the existing railway before decisions are made about expansion.

The railway is also part of Scotland's climate policy

Rail occupies an unusual position in climate policy. Government wants more passenger and freight movement to use lower-carbon transport. At the same time, the railway intended to carry that traffic is itself exposed to the physical effects of climate change.

Scotland's National Adaptation Plan therefore treats transport resilience as part of climate adaptation rather than as a separate railway-maintenance issue.

Network Rail has also been working with other infrastructure operators through Climate Ready Infrastructure Scotland, a forum established in 2025 involving organisations responsible for critical infrastructure. Infrastructure systems are connected. A railway can depend on electricity networks, telecommunications, roads, drainage and emergency access. Severe weather can affect several systems at the same time. Planning for a railway in isolation becomes less effective when the same storm affects power, roads and communications across the surrounding area.

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ENERGY | 3 September 2026

Wind Turbines Are Getting Too Big for the Roads. Scotland Is About to Try a Different Design.

Read online: <https://modern.scot/wind-turbines-are-getting-too-big-for-the-roads-scotland-is-about-to-try-a-different-design/>



A wind farm near Lairg will become the first project in Britain to use GE Vernova's Cypress turbine. Its blades can be transported in separate sections and assembled closer to the wind farm, addressing a problem created by the increasing physical scale of modern onshore wind.

A new generation of wind turbine is coming to the Scottish Highlands.

On 3 September, GE Vernova announced an agreement with Irish energy company ESB to supply 16 Cypress turbines for Chleainsaid Wind Farm, approximately 13 kilometres north-east of Lairg in Sutherland.

The 96MW project will be the first wind farm in the United Kingdom to use GE Vernova's Cypress platform.

Each machine will have a generating capacity of 6.1MW and a rotor diameter of 158 metres.

The turbines will be manufactured in Germany.

The technology arriving in Sutherland contains an unusual engineering feature. Instead of manufacturing each turbine blade as one continuous structure that must be transported intact from factory to wind farm, the Cypress blade can be manufactured and transported in two sections.

The sections are subsequently joined as part of the turbine installation process.

The reason is partly electricity generation and partly geography.

Wind turbines have become larger because larger rotors can sweep a greater area of air. Longer blades can capture more energy, including at lower wind speeds, allowing each turbine to produce considerably more electricity than earlier generations of onshore machines.

But every increase in blade length creates another engineering problem before the turbine reaches the wind farm.

The blade has to get there.

A wind turbine begins its journey on ordinary infrastructure

Modern wind farms are usually built in places selected for their wind resource, environmental suitability, land availability and access to the electricity system.

Those places are not necessarily close to ports, motorways or industrial transport corridors.

In the Highlands, turbine components may have to travel considerable distances through road networks

designed decades or centuries before the components existed.

A turbine blade is not particularly heavy compared with some industrial loads. Its length creates the difficulty.

Junctions, roundabouts, bridges, retaining walls, road signs, street furniture, overhead cables and sharp bends can determine whether a component can physically reach a site.

Wind farm developers therefore carry out abnormal-load route assessments before construction.

Road modifications can be required. Temporary works may be needed at corners. Signs and barriers can be removed and replaced. Vegetation may have to be managed. Traffic can require temporary control while turbine components pass.

The larger the rotor becomes, the more difficult this calculation can become.

GE began developing Cypress partly in response to that constraint.

The idea behind Cypress dates to 2017

GE announced the first turbine in what became the Cypress platform in September 2017.

The early machine was rated at 4.8MW and used a 158-metre rotor.

The platform was developed during a period when the onshore wind industry was increasing turbine output while attempting to reduce the cost of electricity generated over the life of a project.

GE and its blade manufacturer LM Wind Power developed a two-piece blade intended to allow a larger rotor to reach sites where transporting an equivalent single-piece blade could be difficult.

The first 5.3MW Cypress prototype was installed at Wieringermeer in the Netherlands in late 2018 and began producing electricity in February 2019.

GE described the split blade at the time as a means of opening locations that larger turbines might otherwise be unable to reach.

The technology subsequently moved into commercial production.

In 2020 GE announced a 6MW version of the Cypress platform using the same principle.

The machines ordered for Chleainsaid are rated at 6.1MW and use a 158-metre rotor.

GE Vernova says more than 1,800 turbines from its 6MW product family have now been deployed internationally and have accumulated more than 38 million operating hours.

Britain has not previously used the Cypress turbine.

Chleainsaid has been developing for six years

The project itself predates this week's turbine announcement.

Environmental surveys began in February 2020.

Two temporary meteorological masts were approved later that year to measure the wind resource.

Environmental Impact Assessment work continued through the pandemic, with some field surveys temporarily suspended during the first Covid restrictions and desk-based work continuing.

Public consultation followed in 2021.

ESB submitted the formal Section 36 application to the Scottish Government in March 2022.

The application proposed 16 turbines: 12 with maximum blade-tip heights of 200 metres and four with maximum heights of 180 metres.

It also included approximately 20MW of battery energy storage.

Scottish ministers granted consent on 15 December 2023.

The consent allows construction and operation for 35 years.

Chleansaid is located on Dalnessie Estate near the junction of the A836 and A838.

It should not be confused with an earlier Dalnessie Wind Farm proposal on a different part of the estate, which was discontinued in 2014. ESB says the two projects are unrelated.

The project has now crossed from development into construction

On 2 September 2026, one day before GE Vernova announced the turbine order, ESB confirmed that it had reached Final Investment Decision on Chleansaid.

The company has executed the principal construction contracts.

GE Vernova will supply the turbines and provide service support under a 20-year agreement.

Kirby Group will deliver the electrical balance of plant.

Farrans Construction will deliver the civil balance of plant, including the infrastructure required around the turbines.

Construction is expected to begin later in 2026.

Commercial operation is targeted for 2028.

ESB owns the project outright.

It is the company's first wholly developed onshore wind project in Scotland and the first project to reach construction from an ESB pipeline of approximately 2GW of onshore wind opportunities under development across Scotland and Wales.

Chleansaid has also secured a 15-year Contract for Difference.

The CfD gives the project a long-term electricity revenue framework rather than leaving all of its future income exposed directly to wholesale market prices.

Sixteen turbines will produce 96MW

The generating capacity illustrates how far onshore wind technology has moved.

Sixteen 6.1MW machines produce a nominal total slightly above 97MW, while ESB describes the consented

project as a 96MW wind farm.

Earlier commercial wind farms in Scotland required substantially larger numbers of turbines to reach comparable capacities.

Scotland's first commercial wind farm, Hagshaw Hill in South Lanarkshire, opened in 1995 with 26 turbines and a total capacity of 15.6MW.

Each original Hagshaw turbine was rated at 600kW.

A single Cypress machine ordered for Chleainsaid therefore has roughly ten times the rated capacity of one of those first-generation Scottish turbines.

That comparison does not mean one modern turbine simply replaces ten old turbines in every circumstance. Wind conditions, turbine availability, rotor size, grid connection and capacity factor all affect actual electricity production.

It does show the scale of technological change over three decades.

Scotland's earliest commercial wind farms were built with turbines measured in hundreds of kilowatts.

The next generation is measured in multiple megawatts per machine.

The turbines have become taller as well as more powerful

Generating capacity is only one part of the change.

Modern turbines reach higher into the atmosphere and sweep a much larger area with their blades.

The Cypress machines at Chleainsaid will use a 158-metre rotor.

A rotor of that diameter sweeps an area of approximately 19,600 square metres.

The project's planning consent permits maximum blade-tip heights of 200 metres for most of the turbines.

That physical scale changes both performance and infrastructure requirements.

A larger swept area allows the turbine to intercept more moving air.

Higher towers can reach wind conditions different from those nearer the ground.

But larger machines require larger foundations, cranes capable of greater lifts, suitable construction compounds and transport arrangements for longer components.

The split blade addresses one part of that chain.

The blade is not simply cut in half

A wind turbine blade is a highly engineered composite structure.

It must remain sufficiently light to rotate efficiently while withstanding repeated loading over millions of operating cycles.

It experiences changing aerodynamic forces, gravity, vibration, rain, temperature variation and extreme weather.

A joint introduced into that structure has to transmit those loads through the blade while maintaining the required structural performance over its operating life.

The Cypress design was developed by GE Renewable Energy, LM Wind Power and GE Research.

When the first prototype entered operation in 2019, GE said the technology drew on decades of blade-manufacturing experience.

The two sections are manufactured as parts of a blade system rather than an ordinary blade being divided after manufacture.

The design allows the sections to travel separately and be assembled for operation.

Transport becomes one of the design parameters of the turbine itself.

Scotland's geography is part of the engineering problem

The technology has particular relevance to Scotland because a large share of the country's onshore wind resource lies away from major industrial roads.

The Highlands contain long stretches of single carriageway, bridges, settlements and road alignments that were never designed around components approaching modern turbine dimensions.

Wind development has already required extensive route planning throughout rural Scotland.

Some projects require abnormal loads to travel from ports through several council areas before reaching their final site.

Transport constraints can influence turbine selection during development.

A project may have sufficient wind resource and land for a larger rotor while the practical route to the site limits the equipment that can be delivered.

Split-blade technology changes that equation by reducing the length of the individual blade sections moved along the road.

It does not eliminate abnormal-load transport.

Tower sections, nacelles, transformers, cranes and other large components still have to reach the wind farm.

Road suitability remains part of construction planning.

The technology removes one of the more difficult dimensions from the longest component.

The turbines will be made in Germany

The Chleasaid order also shows the geography of the wind industry's supply chain.

GE Vernova says the turbines will be manufactured in Germany.

The wind farm will stand in Sutherland.

It will be owned by ESB, the Irish state-owned electricity company.

Its turbine supplier is GE Vernova, a US-headquartered global energy company.

Its civil construction contractor, Farrans, operates across Britain and Ireland.

Kirby Group will deliver the electrical infrastructure.

This is characteristic of modern renewable infrastructure: the generating asset may be Scottish in location while ownership, manufacturing, engineering and finance cross several countries.

The economic value retained locally therefore depends on more than the headline investment or installed megawatts.

Construction contracts, accommodation, haulage, civil works, maintenance, local procurement, business rates and community arrangements form separate parts of the economic footprint.

ESB says local companies will be encouraged to tender for construction opportunities where possible.

The community fund could run for 35 years

ESB has committed to a community benefit fund based on £5,000 per installed megawatt.

At the project's planned capacity, the company has previously estimated a fund of up to approximately £500,000 a year.

Across a 35-year operating life, that could amount to approximately £17.5 million under the assumptions published during development.

The final arrangements will depend on the operating project and the community benefit structure adopted.

ESB has also offered discussion of community shared ownership.

Shared ownership differs from a community benefit payment.

A community benefit fund is a payment associated with the development.

Shared ownership involves a community acquiring an economic interest in the generating asset and receiving returns associated with that ownership.

ESB's project material states that it is willing to discuss such an arrangement if local communities wish to pursue it.

The landscape around the turbines is part of the consent

The project sits within Highland peatland and upland habitat.

Its environmental assessment consequently covers more than the turbine positions.

ESB has committed to peat management and habitat management associated with the development.

Measures considered during project development included peatland restoration, native woodland planting and habitat work for protected species.

Those measures can extend beyond the direct footprint of turbine foundations and access tracks.

The project therefore combines two forms of engineering: construction of the generating infrastructure

and management of the land altered during construction and operation.

The environmental obligations remain in place regardless of the turbine technology selected after consent.

The first British Cypress turbines are arriving after the technology has already matured elsewhere

Britain is not acting as the experimental site for the basic Cypress platform.

The first prototype was operating in the Netherlands in 2019.

GE Vernova now reports more than 1,800 turbines from its 6MW family operating internationally.

The Scottish project is instead the first deployment of that established platform in the UK.

That timing reflects the long development cycle of wind farms.

A turbine technology can move from prototype to commercial deployment internationally while individual Scottish projects continue through environmental assessment, consultation, consent, electricity-market auctions, financing and procurement.

Chleainsaid began environmental work in 2020.

It applied for consent in 2022.

Consent followed in 2023.

Final Investment Decision came in September 2026.

Generation is expected in 2028.

The eight-year period from initial environmental work to planned operation is part of the infrastructure timetable behind a modern wind farm.

Scotland's next wind farms may use fewer machines to produce more electricity

The history of Scottish wind power has been accompanied by a steady increase in turbine scale.

That changes the appearance of projects as well as their economics.

Fewer high-capacity turbines can sometimes deliver generating capacity that once required many more smaller machines.

The trade-off is that each machine becomes physically larger.

That changes visual effects, aviation considerations, construction requirements and transport.

Technology is now adapting to those constraints.

The Cypress split blade is one example.

Rather than limiting the rotor solely to what can be transported as a single object, the manufacturer redesigned the blade around the journey to the wind farm.

Chleansaid will be the first place in Britain where that approach becomes part of an operating wind project.

Thirty years after Scotland's first commercial wind farm began generating with 600kW machines, Sutherland is preparing for turbines rated at more than 6MW each.

The increase in power has been accompanied by an increase in physical scale.

For the next generation of Scottish wind farms, the roads leading to the turbines are now part of the technology problem.

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ENVIRONMENT | 3 September 2026

Scotland's Peatlands Are Becoming Financial Assets

Read online: <https://modern.scot/scotlands-peatlands-are-becoming-financial-assets/>



New restoration contracts appeared this week for peatland on North Uist and in the Highlands. Behind the engineering work is an emerging market in which repairing damaged Scottish land can create carbon units with owners, buyers, contracts and a place on a national registry.

On 2 September, a contract notice appeared on Public Contracts Scotland for a multi-phase peatland restoration project on North Uist Estate.

The notice was published by Caledonian Climate

Partners on behalf of the estate. Contractors have until 23 September to tender for the work.

Two days earlier, on 31 August, the same company advertised another contract covering phases four to seven of peatland restoration at Invercassley in the Highlands.

Public Contracts Scotland was simultaneously carrying another peatland restoration procurement at Rosal in Sutherland.

These notices describe physical work on damaged land: peatland restoration.

There is another economy developing around such work.

Restoring peat can prevent greenhouse gases that would otherwise have been released from damaged peatland. Under an established UK system called the Peatland Code, those avoided emissions can be measured, independently checked, recorded as carbon units and transferred to buyers.

A damaged bog can therefore acquire a second description.

It remains land.

It remains habitat.

It remains a store of water and carbon accumulated over thousands of years.

Under particular conditions, its restoration can also generate a financial product.

Peat does not need to be removed for carbon to be sold

The carbon market operating around peatland is not based on extracting carbon from the ground.

It works by calculating emissions that restoration is expected to prevent.

Healthy peatlands accumulate partially decomposed plant material in waterlogged conditions. Carbon

contained in that vegetation can remain stored in peat for very long periods.

Drainage changes the system.

When peat dries, oxygen enters material that was previously waterlogged. Decomposition increases and greenhouse gases can be released. Erosion can expose further peat. Burning, extraction, drainage and other changes can also alter emissions.

Restoration commonly attempts to raise water levels and stabilise the peat.

That can involve blocking drainage ditches, reprofiling eroded peat, restoring vegetation and carrying out other engineering and ecological work appropriate to the site.

The climate value under the Peatland Code is calculated from the difference between the emissions expected from the damaged peatland and those expected after restoration.

The resulting unit is measured in tonnes of carbon dioxide equivalent.

One verified Peatland Carbon Unit represents one tonne of CO₂ equivalent emissions prevented by restoration.

Scotland already has the machinery for turning restoration into units

The Peatland Code is a voluntary UK standard administered by the IUCN UK Peatland Programme.

Projects seeking to generate recognised units have to enter a formal process.

The land must qualify. The project has to be registered. Restoration plans and carbon calculations are independently assessed. Restoration itself is subsequently checked. The site is then verified over time.

Every Peatland Code project is recorded on the UK Land Carbon Registry.

The registry also records carbon units, transactions, ownership and use.

At the beginning of a project, the expected future carbon benefit can be represented by Pending Issuance Units.

A Pending Issuance Unit is not a verified emissions reduction.

It represents an expected future tonne of emissions saving.

Those units can nevertheless be allocated or sold before the environmental benefit has been fully delivered.

After restoration has been completed and the required period has passed, independent verification determines whether the expected change has occurred.

The first verification normally takes place five years after restoration ends.

Eligible Pending Issuance Units can then become Peatland Carbon Units.

Only the verified unit represents an emissions saving that has actually occurred under the Code.

The future carbon can be sold before it exists as a verified saving

This creates an unusual financial structure.

A restoration project may need money at the beginning for surveys, contractors, machinery, project development and monitoring.

The environmental benefit accumulates later.

Pending Issuance Units allow part of that future benefit to be marketed before final verification.

A company can therefore pay for an interest in carbon reductions expected to occur years into the future.

The Peatland Code describes a Pending Issuance Unit as effectively a promise to deliver a Peatland Carbon Unit later.

It is not guaranteed.

If the expected benefit is not delivered, the relevant pending unit can be marked as not delivered on the registry.

Verified units operate differently.

Once a Peatland Carbon Unit has been used by its owner for an eligible carbon claim, it is retired on the registry and cannot be used again.

The system is designed to prevent the same verified tonne being repeatedly sold and claimed.

So who owns the carbon?

The Peatland Code addresses this directly.

Until carbon benefits are sold, its current guidance states that the landowner is the sole owner of the emissions-reduction benefits generated by the project unless a contract establishes another arrangement.

Those benefits can be sold during the life of the project.

Project developers can also manage carbon units through registry accounts on behalf of project owners.

The registry therefore separates several roles that can easily be collapsed into the word “owner”.

There is the owner of the land.

There can be a project developer managing the restoration and carbon process.

There can be an investor providing finance.

There can be a buyer acquiring carbon units.

There may also be tenants, crofters or other people holding rights over the same land.

The Scottish Government's principles for responsible natural-capital investment specifically address situations in which rights to carbon are transferred to third parties.

They say information about those transfers should be publicly available, including through the UK Land Carbon Registry.

Scotland has deliberately been trying to create this market

This development has not happened accidentally.

The Scottish Government has spent several years examining how private money can be brought into peatland restoration.

In 2023 it published research specifically examining ways of mobilising private investment into Scotland's natural capital, including financial mechanisms for peatland restoration and voluntary carbon markets.

In November 2024 it published Scotland's Natural Capital Market Framework.

The framework describes forests, peatlands, soils, water, biodiversity and other environmental systems as forms of natural capital.

It sets out a policy for attracting more private investment alongside public environmental spending.

The Government's position is that public finance alone cannot meet the scale of restoration required.

The framework consequently supports expansion of voluntary carbon markets through the Peatland Code and Woodland Carbon Code.

It also establishes principles covering environmental integrity, land ownership, community participation and the distribution of benefits.

Carbon changed the Scottish land market before the market was mature

The first phase of natural-capital investment had consequences beyond restoration projects.

Demand for land capable of producing forestry or carbon value became part of the Scottish rural property market.

Land suitable for tree planting and degraded peat attracted buyers interested in the future financial value of carbon and natural capital.

The Scottish Land Commission began monitoring the effect.

Its 2026 Rural Land Market Insights research records what happened next.

The earlier surge has largely subsided.

Land agents interviewed for the Commission's research said demand for land specifically for natural-capital investment fell sharply during 2024 and had almost disappeared during 2025.

The report says some early investors encountered the practical realities of owning and managing land and some struggled to exit investments profitably.

Prices for some marginal land suitable for forestry or containing degraded peat have consequently moved back towards levels seen before the earlier investment rush.

The carbon market has therefore already passed through a speculative phase before peatland carbon became an established mainstream financial asset.

The market does not require investors to buy Scotland

The Scottish Government's natural-capital principles explicitly state that an investor seeking carbon units

should consider whether ownership of the underlying land is necessary.

Other structures can be used.

An investor can finance a project.

A company can contract to buy future units.

A project developer can manage restoration and registration on behalf of an existing owner.

Carbon rights can be transferred contractually without transferring the estate itself.

The Scottish Government has encouraged management agreements, partnerships and collaboration where those structures can provide wider economic and community benefits.

This separates the market for land from the market for environmental units generated through land management.

A hectare of peatland can remain in the same ownership while the economic rights associated with its future carbon savings move elsewhere.

The contract can last longer than the transaction

Peatland restoration is not a short-term commodity trade.

The environmental change has to persist.

Projects under the Peatland Code are monitored and verified over extended periods. After the first verification, further verification normally occurs at least every ten years.

The carbon units are therefore attached to environmental performance continuing through time.

That creates obligations extending beyond the moment when a buyer pays for a unit.

Land management has to remain compatible with the restored condition.

The project has to continue meeting the Code.

Changes affecting delivery can alter the number or status of carbon units.

A buyer purchasing future carbon is consequently purchasing an environmental outcome that depends on land being managed in a particular way for years afterwards.

Fire, drought and failed restoration enter the financial calculation

Peatland is a physical ecosystem.

Carbon units do not remove ecological risk.

A restored site can experience drought.

Vegetation can change.

Restoration work can perform differently from projections.

Wildfire can damage peat and release stored carbon.

Climate change itself can alter the environmental conditions under which a restoration project was designed.

The Peatland Code therefore requires independent validation and repeated verification rather than treating the initial carbon estimate as a final result.

Pending units that cannot be delivered can be removed from circulation as not delivered.

The carbon market consequently turns environmental performance into part of financial performance.

The same land can have several economic purposes

Scottish peatland rarely exists in an economic vacuum.

It can form part of a croft.

It can lie within a sporting estate.

It can support grazing.

It can affect water management.

It can sit beside forestry.

It can contain protected habitat.

It can influence downstream flood behaviour.

It can also contain archaeological evidence preserved by waterlogged conditions.

Carbon finance adds another economic interest to the same ground.

The Scottish Government's framework consequently requires natural-capital projects to consider wider land uses rather than maximise carbon value alone.

Its principles refer specifically to food production, biodiversity, flood management, tenants, crofters, communities and existing economic activity.

Scotland has already seen how a new land value can alter ownership

Rural land prices respond to the income and future value buyers believe land can produce.

Agriculture has long shaped that calculation.

Forestry changed it.

Renewable-energy leases changed it again in particular locations.

Carbon introduced another possible source of value.

The Scottish Land Commission's research records sharp increases in the value of some grazing and marginal land during the earlier period of forestry and natural-capital demand.

Its 2026 report also raises the relationship between changing land use and agricultural production.

Good arable land has continued to attract agricultural buyers, while grazing land experienced larger price movements as forestry and natural-capital demand entered the market.

The Commission's research now describes the speculative natural-capital surge as having dissipated.

What remains is a more developed policy and regulatory system for projects capable of producing verified environmental outcomes.

The Scottish Government wants communities inside the market

The Natural Capital Market Framework contains an explicit expectation that local communities should receive benefits from natural-capital projects.

It defines community benefits as intentional social and economic benefits negotiated for the long-term wellbeing of communities affected by landholdings or activities.

The framework expects projects to create benefits shared between public, private and community interests and to support community wealth building.

It does not establish a universal statutory percentage of carbon revenue that must be paid to communities.

The practical arrangements can therefore differ between projects.

The framework relies on responsible-investment principles, Scottish Land Commission guidance and engagement between owners, investors and communities.

The financial value created by a project can consequently be divided in several ways: restoration costs, project-development fees, verification and registry costs, landowner income, investor returns, carbon-buyer expenditure and any negotiated community benefit.

Public money and private carbon finance can meet on the same bog

Scotland already spends substantial public money restoring peat through Peatland ACTION.

NatureScot leads the programme with partners including national parks and other public bodies.

Private finance creates another possible funding source.

The relationship between the two is governed by rules intended to ensure that carbon credits represent environmental benefits additional to what would have happened without carbon finance.

The Peatland Code therefore applies tests around project eligibility and additionality.

Public grants and private carbon income cannot simply be treated as two unrelated payments for the same environmental result without accounting for how the project became financially viable.

Scotland's policy has increasingly been directed towards blended structures in which public intervention can help create conditions for private capital while carbon standards protect the integrity of the units produced.

North Uist brings the market onto land with a very different history

The contract published on 2 September concerns North Uist Estate.

North Uist is part of one of Scotland's most extensive peatland landscapes.

Peat there is not simply an environmental commodity.

It sits within a Hebridean landscape shaped by crofting, common grazing, domestic peat cutting, estate ownership, conservation and community life.

The new contract notice does not itself state that the North Uist restoration project will generate Peatland Code carbon units.

It should not be assumed that every peatland restoration contract is a carbon-credit project.

Its appearance alongside other privately managed restoration procurements nevertheless shows the growing professional infrastructure around peatland work: specialist project developers, contractors, environmental assessment, engineering and long-term restoration programmes.

Carbon finance operates within that wider restoration industry.

The carbon is not the peat

The language of natural capital can make a landscape sound as though it has been converted into a balance-sheet entry.

The legal and technical structure is narrower.

A buyer of a Peatland Carbon Unit does not buy the bog.

The unit represents one verified tonne of greenhouse-gas emissions avoided through an eligible restoration project.

The land remains subject to its ownership, tenure, environmental regulation and other rights.

The unit can be transferred separately.

That separation is precisely what creates the market.

Environmental improvement that previously had no readily tradable financial unit can be measured and converted into something capable of being bought, held, transferred and retired.

Scotland is now dealing with two different natural-capital stories

The first was the rush for land.

Investors saw forestry, carbon and environmental value in Scottish rural property. Prices rose in parts of the market. Concerns followed about ownership concentration, communities, farming and the arrival of buyers whose principal interest was natural capital.

That phase has cooled considerably according to the Scottish Land Commission.

The second story is more technical.

The infrastructure of the market is being built.

There are standards.

There are independent validators.

There is a national registry.

There are project developers.

There are contracts for future units.

There are verified units capable of being retired against eligible corporate emissions claims.

There are government principles governing community benefit and responsible investment.

And there is a growing restoration industry carrying out the physical work from the Western Isles to the Highlands.

The North Uist and Invercassley contracts published this week are small entries in that larger development.

Scotland's damaged peatlands have long been measured in hectares, depth, habitat condition and tonnes of stored carbon.

They can now also produce registered units with serial numbers, ownership records and buyers.

The next phase of Scotland's natural-capital market will be determined not simply by how much peat is restored, but by the contracts around that restoration: who finances it, who owns the resulting carbon rights, who buys them, what obligations remain attached to the land and how much of the financial value stays in the places where the peat itself lies.

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ENVIRONMENT | 3 September 2026

For Generations Scotland Has Burned Its Moors. From 15 September, It Will Need Permission.

Read online: <https://modern.scot/for-generations-scotland-has-burned-its-moors-from-15-september-it-will-need-permission/>



One of Scotland's oldest forms of land management is about to enter a new legal system. From 15 September, every act of muirburn in Scotland will require a licence, with additional restrictions where the fire is set on deep peat. The change reaches across grouse moors, farms, crofts, sporting estates, conservation projects and some of the country's largest stores of carbon.

Every autumn, after the vegetation begins to dry and the traditional burning season opens, fires appear

across parts of Scotland's uplands.

They are often deliberate.

For generations, farmers, crofters, gamekeepers and land managers have burned patches of heather and other moorland vegetation to alter what grows there.

The practice is known as muirburn.

From 15 September 2026, carrying it out anywhere in Scotland without a licence will become an offence.

The new system is being introduced under the Wildlife Management and Muirburn (Scotland) Act 2024 and will be administered by NatureScot.

Applications are already open.

The change creates a national licensing regime around an activity that has shaped large areas of Scotland's upland landscape but which has also become increasingly connected to arguments over peatland, carbon, wildlife, grouse shooting and wildfire.

It will also require land managers to establish something that has not previously determined the legality of ordinary muirburn in this way: how deep the peat is beneath the vegetation they intend to burn.

What Scotland means by muirburn

Muirburn has a specific meaning in the new law.

The Wildlife Management and Muirburn (Scotland) Act defines it as the setting of fire to, or burning of, any heath or muir.

Muir is the Scots word for moor. NatureScot describes the habitats involved as predominantly open ground characterised by heather and moorland grasses.

The fire is deliberately managed.

Land managers normally burn relatively small areas rather than an entire moor. The resulting pattern creates vegetation of different ages.

Young heather and grasses can provide grazing and food. Older vegetation can provide cover. Burning can also remove accumulated vegetation and create breaks in combustible material.

The practice has consequently been used for several purposes.

On sporting estates it has been associated particularly with management of habitat for red grouse.

Farmers and crofters have used it to improve grazing.

Conservation managers can use carefully controlled fire as a habitat-management technique.

It can also be used as part of wildfire management.

The new law does not prohibit muirburn.

It changes the circumstances in which it can legally take place.

This does not mean burning peat in your home requires a licence

Muirburn is not the same thing as cutting peat for domestic fuel and later burning that peat in a stove or fireplace.

The licensing system regulates deliberate burning of vegetation growing on heath and moorland.

Peat itself has traditionally been cut, dried and used as domestic fuel in parts of Scotland, particularly in some island and rural communities.

Scottish Government environmental policy continues to permit peat cutting for domestic use.

The Government has also specifically retained peat-burning heating systems within Scotland's rules for new buildings. Changes introduced from January 2025 allow bioenergy, including wood burners and peat-burning systems, in homes and other buildings under the New Build Heat Standard.

A person burning cut peat in a domestic stove or fire is therefore not carrying out muirburn merely by using that fuel.

The relevance of peat to the new muirburn system concerns what lies beneath the vegetation being burned outdoors.

If the moorland vegetation is growing above sufficiently deep peat, the land falls into a different legal category.

Forty centimetres changes the rules

The Act defines peatland for muirburn purposes as land where the soil contains a layer of peat more than 40 centimetres deep.

That measurement determines which licensing rules apply.

NatureScot has created an interactive map classifying land as peatland, non-peatland or uncertain.

Where the available information cannot establish peat depth, applicants seeking permission to burn for a non-peatland purpose may have to carry out physical surveys.

NatureScot requires uncertain areas to be surveyed on a 100-metre grid.

A peat probe is inserted into the ground and the depth recorded.

Applicants must submit results using NatureScot's prescribed template.

If an uncertain area is not surveyed, it is treated as peatland for licensing purposes.

The result is that the underground structure of the moor becomes part of the regulatory system governing fire above it.

Burning on peatland will face narrower rules

The Act creates different permitted purposes depending on whether land is classified as peatland.

On non-peatland moor, a licence may be issued for seven purposes.

These include managing habitat for moorland game or wildlife, improving grazing for livestock, managing or restoring the natural environment, reducing wildfire risks, research and training.

On peatland, only five purposes are available.

They are restoring the natural environment; preventing or reducing wildfire damage to habitats; preventing or reducing wildfire risks to people or property; research; and training.

Managing habitat for moorland game is not included as a peatland purpose.

Neither is improving grazing for livestock.

NatureScot must also apply an additional test.

For non-peatland, proposed muirburn must be appropriate for the stated purpose.

For peatland, it must be both appropriate and necessary.

NatureScot's applicant guidance says its assessment can consider the proposed scale of burning, the risks involved, the likely outcome and whether the objective could instead be achieved on non-peatland.

Peat is accumulated landscape

Peat forms when plant material accumulates in waterlogged conditions and decomposes only partially.

The process is slow.

Layers build over centuries and, in some Scottish peatlands, millennia.

Scotland contains extensive blanket bog, particularly across the Highlands and islands, as well as raised bog and other peat soils elsewhere.

These landscapes contain large quantities of carbon accumulated from previous vegetation.

When peat remains wet and functioning, much of that carbon stays in the ground.

When peat is drained, eroded or otherwise degraded, carbon can be released.

Scotland has consequently moved from treating peatland principally as marginal agricultural or sporting ground towards treating it simultaneously as habitat, hydrological infrastructure and a major carbon store.

The Scottish Government has committed substantial public funding to peatland restoration through Peatland ACTION and related programmes.

Restoration can involve blocking drainage channels, reprofiling eroded peat, stabilising bare surfaces and re-establishing vegetation.

Muirburn law now sits within that larger change in the treatment of peat.

Fire does not interact with every moor in the same way

The environmental effects of muirburn depend on where, when and how it is carried out.

Fire can alter vegetation structure, species composition and the amount of combustible material present.

Its effects can vary according to soil, peat depth, moisture, vegetation, weather, fire intensity and frequency.

A controlled surface burn on appropriate ground is not the same physical event as a fire that ignites or damages peat.

Dry peat itself can burn.

Once fire enters peat, it can continue below the surface, sometimes after visible flames have disappeared. Such fires can be difficult to extinguish and can consume carbon accumulated over long periods.

Scotland's recent wildfire experience contributed directly to the timetable for the licensing system.

The legislation had originally been expected to bring the muirburn provisions into effect from January 2026.

In October 2025, Agriculture Minister Jim Fairlie announced that implementation would move to autumn 2026 following wildfires that had affected several parts of Scotland and damaged peatland.

The Scottish Government said the delay would allow further consideration of how licensing could be introduced without reducing the ability of land managers and the Scottish Fire and Rescue Service to prevent and respond to wildfire.

The commencement date is now 15 September 2026, the opening day of the standard Scottish muirburn season.

Wildfire has complicated the argument over burning

Removing vegetation by controlled burning can reduce the quantity of fuel available to a later wildfire.

That is one reason wildfire prevention remains a permitted purpose under the new legislation, including on peatland.

The relationship is not uniform across every landscape.

Vegetation can also be managed mechanically through cutting, mowing or other techniques. Rewetting degraded peat changes the flammability of the land itself. Grazing affects vegetation structure. Firebreaks can be created without burning an entire management area.

Different techniques have different costs and are not equally practical on steep, remote or inaccessible ground.

The new licensing regime does not prescribe a single replacement for muirburn.

For peatland applications, however, NatureScot can examine whether burning is necessary to achieve the stated objective.

That places alternative management methods within the licensing decision.

The grouse moor is part of the history

Muirburn is closely associated with Scotland's managed grouse moors.

Red grouse feed heavily on heather. Land managed for driven grouse shooting has traditionally been burned in small patches to produce a mosaic of younger heather for feeding and older heather for shelter.

That management system became particularly prominent as sporting estates developed during the nineteenth century.

The resulting landscape can look natural while also being intensively managed.

Heather age, predator control, drainage, grazing and burning have all influenced the appearance and ecology of some moors.

The 2024 Act places muirburn within a wider package of wildlife-management legislation that also introduced licensing for land used to kill red grouse.

The legislation followed years of political and scientific argument over grouse-moor management, raptor persecution, traps and snares, burning and the condition of peatland.

From September, burning for the purpose of managing moorland game can continue on non-peatland where a licence is granted.

It is not one of the statutory purposes for which muirburn can be licensed on peatland.

Farmers and crofters are also affected

Scottish muirburn is not confined to sporting estates.

It has also been used to manage rough grazing.

Burning older vegetation can encourage younger growth that livestock can graze more readily.

The new system retains improving the grazing potential of moorland for livestock as a licensing purpose on non-peatland.

It does not permit that purpose on peatland.

The difference has practical implications in parts of Scotland where grazing land and peat soils overlap.

Applicants will need to know which parts of their land fall into each category.

A holding may contain both.

NatureScot's licensing maps are intended to define the areas on which different purposes can be authorised.

Everyone carrying out muirburn will require training

The legislation also changes who can participate in a burn.

NatureScot says everyone intending to carry out muirburn must complete the Muirburn Practitioner Foundation Course.

The course is accredited by Lantra and contains online learning and practical assessment.

Only people who have completed the course will be permitted to participate in muirburn under the new system.

The licence itself must be held by the owner or occupier of the land, or applied for on their behalf.

A licence can run for a maximum of five years.

Licence holders must have regard to the new Muirburn Code.

Neighbours enter the legal process

The new code also formalises notification around proposed burning.

People carrying out muirburn must notify relevant landowners and occupiers within one kilometre of the proposed site, unless those people have stated in writing that they do not wish to receive notifications.

The notification must be given within the prescribed period before burning.

Where ten or more people require notification, the code provides for notice through a local newspaper.

Further information about the location, extent and timing of a proposed burn must be supplied where requested under the statutory arrangements.

The system therefore creates records around activity that could previously take place primarily as a matter of estate, farm or local land management.

Scotland's moors are being asked to perform several functions at once

The legislation arrives during a broader change in how upland Scotland is used.

The same landscapes can contain sporting estates, sheep farms, crofts, forestry, wind farms, electricity infrastructure, water catchments, protected habitats and peatland restoration projects.

They also store carbon and support tourism and recreation.

Those uses can overlap geographically without sharing the same management objectives.

A piece of moor can be viewed as grazing land, grouse habitat, a carbon store, a wildfire risk, an ecological restoration site and part of a private estate at the same time.

The muirburn licensing system does not resolve those competing land uses.

It creates statutory conditions governing one of the techniques used to manage them.

The map beneath the moor will now determine what can happen above it

NatureScot's peatland map is likely to become an increasingly familiar document for estates, farms and crofts applying for licences.

It combines existing survey information with modelled peat data from the James Hutton Institute.

The map is not treated as infallible.

Areas can be classified as uncertain, and applicants can submit physical survey evidence.

Land shown as peatland can also be challenged with survey data where an applicant seeks a non-peatland licence.

The system effectively converts peat depth into a regulatory boundary.

Two neighbouring pieces of heather moor may look similar at the surface while falling under different licensing rules because one contains peat deeper than 40 centimetres.

The person seeking to burn will have to establish which is which.

15 September begins the first licensed season

The standard Scottish muirburn season runs from 15 September to 31 March.

Out-of-season burning can be authorised for a narrower range of purposes, including environmental management, wildfire prevention and research.

Burning for moorland game management or improving livestock grazing cannot be licensed outside the normal season.

From the opening day of the 2026 season, carrying out muirburn without a licence will be an offence.

NatureScot will therefore begin the first season in which Scotland has a national record of authorised muirburn areas, purposes and licence holders.

For peatland, applicants will also have to demonstrate necessity.

For non-peatland, the traditional purposes of game management and grazing can continue within the licensing system.

Domestic peat fuel remains outside that definition of muirburn.

Scotland will continue to have controlled fires on its hills after 15 September.

The change is that each legal burn will now sit inside a national system recording where it can happen, why it is being done and whether the ground beneath it is peatland.

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ECONOMY | 3 September 2026

Another Scottish Energy Company Is Being Sold Overseas

Read online: <https://modern.scot/another-scottish-energy-company-is-being-sold-overseas/>



Capricorn Energy has spent more than four decades building businesses from Edinburgh, from the North Sea to India, Senegal and Egypt. A new £292 million takeover by Norway's DNO could now remove another independent energy headquarters from Scotland.

Capricorn Energy is preparing to change ownership.

On 1 September 2026, the Edinburgh-headquartered company recommended a cash offer from Norwegian oil and gas producer DNO worth approximately US\$396

million, equivalent to about £292 million at the exchange rate used in the transaction announcement.

The offer displaced an earlier agreement under which Capricorn was due to be acquired by Genel Energy.

Capricorn shareholders had already voted on 18 August to approve the Genel transaction. The DNO offer arrived later and values Capricorn approximately US\$36 million above the Genel proposal.

Under DNO's terms, shareholders would receive an aggregate US\$5.214 for each Capricorn share, consisting of US\$4.224 in acquisition consideration and an intended special dividend of US\$0.99.

The Capricorn board is now recommending the DNO offer.

If the transaction completes, Capricorn will cease to be an independently listed company. DNO intends to remove its shares from the London Stock Exchange and re-register Capricorn as a private company.

The headquarters of the enlarged group will be in Oslo.

Edinburgh's future within the company is less certain.

DNO says it intends to retain an Edinburgh presence during an initial transition period. It will then review whether functions currently performed in Scotland should be transferred to Cairo, Oslo or Dubai.

The takeover announcement states that the process could result in the closure of Capricorn's head and administrative offices in Edinburgh.

For Scotland, the transaction reaches beyond the ownership of one relatively small listed company. Capricorn is the present form of Cairn Energy, one of the most internationally successful energy businesses created and headquartered in Scotland during the modern North Sea era.

From Edinburgh to Rajasthan

The company traces its history to 1980, when Cairn was founded by Sir Bill Gammell and others.

Cairn Energy was formed as a public company and listed on the London Stock Exchange in 1988 with a market capitalisation of approximately £25 million.

Its later growth was international.

The company entered Bangladesh, expanded into India and eventually developed what became one of the largest oil discoveries in modern Indian history.

Cairn's Rajasthan business emerged from an exploration programme that produced the Mangala discovery in 2004. Capricorn's own corporate history describes Rajasthan as India's largest onshore oil discovery for more than 25 years.

The business became sufficiently large to be separated into Cairn India Limited, which listed on Indian stock exchanges in 2006.

Cairn then began selling its holding.

In 2011 it completed the sale of a further 30 per cent of Cairn India to Vedanta Resources for US\$4.1 billion, after having already sold 10 per cent for approximately US\$1.4 billion earlier that year.

The company subsequently returned substantial amounts of the proceeds to shareholders.

Capricorn records that between 2006 and 2012 it returned US\$4.5 billion to shareholders.

The company's operating geography then changed again.

Senegal, the North Sea and another reconstruction

After reducing its Indian business, Cairn returned to exploration.

In 2014 it made a large offshore oil discovery in Senegal.

It also participated in two major UK North Sea developments: Catcher and Kraken.

Both began producing in 2017.

Those North Sea interests were sold in November 2021.

In December of that year Cairn Energy changed its corporate name to Capricorn Energy.

The Edinburgh headquarters remained.

By then the company had operated in a sequence of international energy provinces while retaining Scotland as the location of the listed parent company and its corporate functions.

The next major operational centre became Egypt.

Capricorn acquired producing interests in Egypt's Western Desert and today describes itself as a cash-flow-focused producer centred on those assets.

In 2025, the group reported oil and gas revenue from Egypt of US\$134 million and working-interest production of just over 20,000 barrels of oil equivalent per day.

By the end of that year it held group net cash of US\$103 million.

Its present value therefore sits principally in Egyptian oil and gas production rather than Scottish or North Sea production.

The company remains Scottish in corporate domicile and headquarters, but its producing assets are predominantly elsewhere.

DNO wants the Egyptian business

DNO was founded in 1971 and describes itself as Norway's oldest oil and gas company.

It is listed in Oslo and already operates across Norway, the UK North Sea, the Kurdistan Region of Iraq and other international locations.

Capricorn gives DNO a new operating platform in Egypt.

The acquisition announcement describes the Egyptian portfolio as the principal strategic attraction of the transaction.

DNO intends to review the assets, development programme, financial performance and growth opportunities after completion and integrate them into its wider international business.

The company expects to retain technical, operational and management capability in Egypt.

The treatment of corporate functions is different.

Capricorn has 38 employees in total according to the takeover announcement.

DNO intends to examine headquarters organisation, corporate support functions and the overall cost base during a post-completion review lasting up to six months.

It says overlapping general-management and public-company functions could be rationalised.

The announcement says this is likely to result in a material reduction in the overall number of Capricorn employees.

Corporate support functions currently based in Edinburgh are expected to be integrated with DNO's existing organisation.

DNO says it will retain an Edinburgh presence for an initial period sufficient to support the transition.

After the review, some roles could be carried out from Cairo, Oslo or Dubai.

The document states that this may result in closure of Capricorn's Edinburgh head and administrative offices.

A headquarters is different from an oilfield

Scotland's energy economy is often measured through physical assets.

Oil platforms, pipelines, terminals, wind farms, substations, fabrication yards and ports are visible forms of industrial activity.

Corporate headquarters produce another form of economic activity.

They contain finance, strategy, legal work, investor relations, commercial expertise, management, governance and decisions about where capital is deployed.

Those functions employ fewer people than a fabrication yard or major operating asset, but they sit close to decisions over investment, acquisitions and corporate development.

Capricorn is now a small employer. The 38-person workforce disclosed by DNO confirms that the direct employment effect of the transaction cannot be compared with the closure of a large industrial plant.

The longer history is broader.

For decades Edinburgh was the base from which Cairn raised capital, bought licences, managed international exploration, developed discoveries, sold assets and returned billions of dollars to investors.

If the Edinburgh headquarters closes after the acquisition, the city does not lose an oilfield.

It loses the headquarters of a business that once created and controlled oil interests across several continents.

Scotland has seen this before

Foreign ownership is established throughout the Scottish and North Sea energy industry.

The sector has always been international. American, European and state-owned companies were central to the development of the North Sea from its early years.

Scottish companies have also been acquired.

Aberdeen-based Dana Petroleum was taken over by Korea National Oil Corporation in 2010.

The Korean state-owned company offered approximately £1.87 billion for Dana, which at the time held exploration and production interests across the North Sea and Africa.

The UK competition authorities cleared the transaction in September 2010.

Dana subsequently became part of KNOC.

Faroe Petroleum provides a more recent precedent and involves the same buyer now pursuing Capricorn.

Faroe was a North Sea exploration and production company with operations in Norway and the UK.

DNO began building a position in the company in 2018 and took control in January 2019 after a takeover process.

It subsequently acquired the remaining shares, delisted Faroe and integrated the business into DNO.

Faroe was renamed DNO North Sea.

DNO's own accounts state that the acquisition was intended to establish the Norwegian company firmly in the North Sea.

Capricorn now offers DNO something geographically different: entry into Egypt with an established producing portfolio.

This is also part of a much larger takeover market

The Capricorn transaction is occurring during an unusually active period for acquisitions of UK-listed companies.

Financial Times reporting based on Dealogic data put announced UK-listed merger and acquisition activity at US\$182 billion in 2026, already above the US\$129 billion recorded during 2025.

Capricorn is one of several London-listed companies currently preparing to leave the public market following takeover offers.

The same week brought takeover agreements involving industrial engineering company Bodycote and communications group Gamma.

The companies and sectors are unrelated, but the transactions have renewed scrutiny of valuations on the London market and the ability of overseas and private buyers to acquire UK-listed businesses at prices boards consider acceptable to shareholders.

Capricorn's proposed sale demonstrates how that process operates in energy.

A company does not have to be financially distressed to be acquired.

Capricorn ended 2025 with net cash and producing assets. Its board described the company in April as positioned for growth in 2026.

The takeover process instead became a competition over valuation.

Genel reached an agreed transaction first.

DNO subsequently offered more.

Capricorn's directors changed their recommendation.

The proposed acquisition value represents a 45 per cent premium to Capricorn's closing share price on 10 March 2026, the day before its formal offer period began, and approximately 10 per cent more than the Genel acquisition value.

The shareholder calculation is not the Scottish economic calculation

The legal responsibility of Capricorn's directors is exercised within company and takeover law.

The board has received financial advice and concluded that DNO's terms are fair and reasonable for shareholders.

Shareholders are being offered a premium to the price at which the company traded before the takeover process began.

The location of future headquarters functions sits elsewhere in the transaction documentation.

DNO is explicit that the enlarged company will be headquartered in Oslo.

It is equally explicit that Edinburgh functions will be reviewed.

These are separate outcomes generated by the same transaction.

Shareholders can receive a higher cash value while Scotland loses corporate functions.

No contradiction is required for both to occur.

A takeover is priced around the value of shares and assets to the buyer. Regional economic policy considers employment, headquarters, taxation, expertise, procurement, business formation and control of capital.

The two calculations use different measures.

Capricorn itself was built around buying, developing and selling assets

The company's history also prevents a simple account of Scottish ownership being transferred abroad.

Cairn and Capricorn have spent decades participating in the international market for energy assets.

The company acquired interests, explored acreage, developed discoveries and sold holdings when boards believed capital could be realised and returned or redeployed.

The Cairn India transaction was one of the clearest examples.

Cairn created substantial value through exploration and development, sold the majority of the resulting Indian company to Vedanta and returned billions of dollars to shareholders.

Its UK North Sea interests in Catcher and Kraken were also sold.

Energy-company ownership is routinely separated from the physical location of resources.

A Scottish-headquartered company can own Egyptian assets.

A Norwegian company can own UK North Sea assets.

A Korean state company can own a business previously headquartered in Aberdeen.

Capital, licences, headquarters and hydrocarbons do not have to occupy the same country.

Scotland is trying to build another generation of energy companies

The proposed acquisition arrives while Scottish economic policy is increasingly focused on retaining more value from the next energy system.

Offshore wind, grid infrastructure, hydrogen, carbon capture and energy technology are creating another generation of businesses and investment projects.

The question of ownership will run alongside the question of construction.

A wind farm can stand in Scottish waters while being owned by an international consortium.

A Scottish university can create intellectual property that is later purchased by an overseas company.

A Scottish engineering firm can grow through the energy transition and subsequently be acquired.

Foreign investment can provide capital, technology, access to larger markets and the capacity to develop projects that would otherwise remain unfunded.

It can also move strategic corporate functions elsewhere after acquisition.

The outcome depends on the company and the transaction rather than the nationality of the buyer alone.

Capricorn provides unusually clear evidence because DNO has already stated what it is considering.

Egyptian operational capability is intended to remain because DNO wants the producing business.

Edinburgh corporate functions overlap with functions DNO already operates elsewhere.

That is the structure the buyer will examine after completion.

The company created in Scotland may end as a corporate entity controlled from Oslo

The transaction still requires the remaining approvals and completion of the Scottish scheme-of-arrangement process.

Capricorn's earlier transaction with Genel has not automatically disappeared, although the board no longer intends to seek court sanction for that scheme while recommending the DNO acquisition.

DNO's offer is now the board-supported transaction.

If completed, Capricorn will become part of a Norwegian-headquartered group.

Its public listing will end.

Its existing non-executive directors are expected to leave the board.

Corporate functions will be reviewed.

The future of the Edinburgh office will be decided after completion.

The operating assets in Egypt will continue producing oil and gas.

That sequence describes a particular form of economic change.

The physical energy assets remain where they are. The ownership and corporate centre move.

Cairn began in Scotland in 1980, reached the London market in 1988, built an Indian oil company, discovered oil in Senegal, invested in the North Sea and reconstructed itself around Egyptian production.

Forty-six years after its foundation, the independent company may now reach the end of that corporate journey.

For DNO, the acquisition creates an Egyptian growth platform.

For Capricorn shareholders, it offers cash at a premium.

For Edinburgh, the published takeover documents leave one unresolved corporate question: how much of Capricorn will remain in Scotland once the company no longer needs a Scottish headquarters.

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ENERGY | 3 September 2026

Scotland's £96 Billion Offshore Wind Pipeline Now Faces a Decision Made Beyond Scotland

Read online: <https://modern.scot/scotlands-96-billion-offshore-wind-pipeline-now-faces-a-decision-made-beyond-scotland/>



The National Energy System Operator has submitted six possible pathways for Great Britain's energy system to government. Scotland has already leased seabed for one of Europe's largest offshore wind development pipelines. The two processes are now meeting.

On 28 August 2026, the National Energy System Operator submitted six possible long-term energy pathways to the UK, Scottish and Welsh governments.

The pathways form part of the Strategic Spatial Energy Plan, or SSEP, a new attempt to decide what kinds of electricity generation, hydrogen production and energy storage Great Britain will require, where they should be located and when they should be developed between 2030 and 2050.

The UK Energy Secretary will select a preferred pathway. The Scottish and Welsh governments have formal advisory roles in that process.

For Scotland, the decision arrives after a separate process has already allocated large areas of Scottish seabed for offshore wind.

ScotWind and the Innovation and Targeted Oil and Gas leasing round, known as INTOG, together represent potential offshore wind capacity of approximately 36.4 GW according to research commissioned by Crown Estate Scotland.

The investment associated with those projects has been estimated at £96.1 billion: £78.5 billion connected with ScotWind and approximately £17.6 billion with INTOG.

Crown Estate Scotland estimates that development on that scale could support around 21,200 jobs annually and generate at least £15.7 billion in gross value added. It estimates that Scottish businesses could secure between £28.6 billion and £34.8 billion of contracts associated with the projects.

Those figures are estimates based on a development pipeline. They are not investment already made, contracts already secured or jobs already created.

Projects still require planning consent, grid connections, finance, viable electricity-market arrangements, construction capacity, ports, vessels, manufacturing capability and supply chains before turbines generate power.

The SSEP is being developed at the point where those requirements begin to converge.

Scotland leased the seabed before Britain had this energy plan

ScotWind was announced in January 2022.

It was the first major offshore wind leasing round in Scottish waters for a decade and the first conducted after management of the Scottish Crown Estate was devolved.

Seventeen projects were initially offered option agreements. Further projects entered through a subsequent clearing process, taking the original ScotWind portfolio to 20 projects.

The scale was larger than previous Scottish offshore wind development.

Projects included conventional fixed-bottom wind farms as well as large floating developments intended for deeper waters where turbines cannot easily be fixed directly to the seabed.

The original projects paid approximately £755 million in option fees to secure development rights.

An option agreement does not constitute permission to build a wind farm.

Developers must progress environmental assessment, marine licensing, electricity consent, engineering, financing and grid connection before Crown Estate Scotland can grant a full seabed lease for construction and operation.

One ScotWind project, West of Orkney, had secured its principal Scottish marine and electricity consents by June 2026. Crown Estate Scotland reported at that point that the Scottish Government's Marine Directorate was progressing 14 further ScotWind applications.

The leasing round consequently created a development pipeline rather than an operational fleet.

That pipeline was created under one institutional system. The SSEP is now constructing another system around it.

The Strategic Spatial Energy Plan changes how the future grid is planned

Great Britain historically developed much of its electricity system incrementally.

Generators applied to connect. Networks assessed requirements. Transmission infrastructure was expanded through individual programmes. Electricity generation and the network carrying it were related, but they were not planned through a single national spatial blueprint extending several decades ahead.

The expansion of renewable generation has made that approach increasingly difficult.

Large concentrations of wind power are being proposed far from the largest centres of electricity consumption. Offshore wind can require subsea cables, coastal converter stations, new substations and major new transmission lines. Electrification of transport, heating and industry could also alter where electricity is consumed.

The UK, Scottish and Welsh governments jointly commissioned NESO in October 2024 to develop the first Strategic Spatial Energy Plan for Great Britain.

Its purpose is to map potential quantities, technologies and broad locations for future electricity and hydrogen infrastructure.

NESO says the plan will consider cost, engineering, environmental constraints, social factors, land and sea use and the requirements of the wider energy system.

The plan does not select individual wind farms.

It creates the system-level assumptions around which future generation and network infrastructure will be planned.

That places it upstream of several later decisions.

NESO's future Centralised Strategic Network Plan will use the spatial energy work when recommending transmission infrastructure. Connections reform is also increasingly being aligned with strategic national planning rather than allowing the connection queue alone to determine which projects progress.

A project can therefore possess seabed rights while operating inside a wider energy system that has not allocated the same volume of generation to the area in which it is proposed.

Six energy futures have now been submitted

NESO confirmed on 28 August that its Pathway Options Report had been submitted to the three governments and Ofgem.

The report contains six possible energy-system futures.

NESO has not yet published the full details of those pathways.

The Energy Secretary will consider the six options and choose the UK Government's preferred pathway. Scotland and Wales have formal advisory roles.

The preferred option will then inform the draft Strategic Spatial Energy Plan, which is expected to go to public consultation in early 2027.

Scottish renewable-energy organisations have been scrutinising the modelling for several months.

Earlier Scottish Renewables analysis of SSEP modelling said that one modelled pathway reflected the full ScotWind and INTOG pipeline at that stage of the process and requested clarification about how the other pathways aligned with Scottish offshore wind policy.

Recent industry reporting following submission of the six options says Scottish energy businesses, ports, unions and regional organisations believe only two of the six pathways would accommodate the Scottish offshore wind pipeline in full.

NESO has not yet published the six pathway capacities, so that assessment cannot presently be independently reconstructed from the public Pathway Options Report.

The underlying issue is nevertheless visible in public documents.

Scotland has a leased offshore development pipeline approaching 36 GW while NESO is separately calculating how much generation Great Britain requires, where it should be located and which combination produces the lowest-cost secure energy system after environmental and spatial constraints are applied.

ScotWind is unusually dependent on floating wind

A significant part of Scotland's offshore opportunity lies in floating wind.

Conventional offshore turbines use foundations connected directly to the seabed. That technology becomes

more difficult as water depth increases.

Floating turbines are mounted on structures held in place through mooring and anchoring systems. The approach allows wind farms to move into deeper water.

Scottish waters contain large areas suited to floating technology.

Several ScotWind projects were therefore designed as floating developments, while INTOG includes further floating projects intended partly to supply electricity to offshore oil and gas installations or provide innovative generation.

Floating wind has not yet reached the industrial maturity of fixed-bottom offshore wind.

Projects require large floating foundations, specialised anchors and moorings, high-capacity ports, assembly areas and towing operations. The cost of electricity remains higher than established fixed-bottom technology.

The technology creates a different industrial opportunity.

A floating turbine may be assembled or integrated in port before being towed to sea rather than relying entirely on offshore installation. That creates demand for quayside space, heavy lifting, deep water, fabrication and maintenance capacity.

Scottish ports including Aberdeen, Cromarty Firth, Nigg, Dundee, Leith, Montrose and others have been positioning themselves for parts of the offshore wind supply chain.

Investment decisions at ports frequently occur before final wind farm investment decisions because harbour infrastructure itself takes years to finance, consent and construct.

A national energy pathway containing less floating wind therefore changes more than an electricity-generation forecast. It changes the market against which port owners, fabrication companies, colleges and equipment suppliers assess investment.

The grid determines how much generation can leave Scotland

Scotland already produces periods of electricity surplus while the largest centres of British electricity demand lie further south.

Moving substantially more electricity out of northern and eastern Scotland requires large additions to the transmission system.

The existing programme is already extensive.

New high-voltage lines and substations are being developed across northern Scotland. Offshore transmission links are also being constructed to move electricity south.

SSE's 2026 annual report describes a five-year £33 billion investment programme, including approximately £22 billion intended for electricity transmission in the north of Scotland.

Eastern Green Link 2 alone involves approximately 505 kilometres of subsea cable between Scotland and England.

Network planning has moved progressively towards coordination because connecting each offshore wind farm

separately would require repeated coastal landfalls and potentially larger aggregate infrastructure.

The Holistic Network Design published in 2022 was an earlier step in that direction. It coordinated infrastructure associated with approximately 23 GW of offshore wind and was designed to reduce cost and the cumulative seabed footprint compared with individual connections.

The SSEP extends the principle from network design into the location and quantity of generation itself.

A Scottish offshore project consequently sits inside at least three separate planning questions.

Can the wind farm itself be built?

Can it connect to the electricity system?

Does the future Great Britain energy plan assume that generation of that type and scale should exist in that zone?

Scotland controls some parts of offshore wind development and not others

The institutional structure crosses devolved and reserved responsibilities.

Crown Estate Scotland manages offshore renewable-energy seabed rights in Scottish waters on behalf of Scottish Ministers.

Scottish Ministers determine relevant marine licences and section 36 electricity consents for offshore generating stations in Scottish waters.

Scottish planning and consenting processes also apply to much of the onshore infrastructure required to connect generation.

The principal electricity market remains a Great Britain system.

Contracts for Difference, the principal revenue-support mechanism for large renewable projects, are administered under UK energy policy.

Transmission regulation is undertaken by Ofgem.

NESO operates and plans the Great Britain electricity system.

The UK Government ultimately selects the preferred SSEP pathway under the structure now being used, with Scotland and Wales participating as formal advisers.

Scotland can therefore lease seabed and approve generating infrastructure without controlling every economic and network condition required to make the project financeable and connectable.

The Scottish Government has already been pressing for ScotWind and INTOG capacity to be represented in SSEP modelling.

In a parliamentary answer on 20 July, Energy Minister Stephen Gethins said Scottish ministers were engaging regularly with the UK Government and NESO through formal governance groups and bilateral meetings and were seeking to ensure that Scotland's offshore wind potential was fully reflected.

The £96.1 billion figure is a potential investment pipeline

The numbers surrounding ScotWind can be misread.

Crown Estate Scotland's economic-impact research estimates £78.5 billion of investment associated with ScotWind and £17.6 billion with INTOG.

That produces the £96.1 billion combined figure.

The same research estimates at least £15.7 billion in gross value added and approximately 21,200 jobs supported annually if the offshore development is realised.

The figures describe potential economic activity across a major construction programme.

They do not establish how much money will ultimately be spent in Scotland.

Developers submit Supply Chain Development Statements to Crown Estate Scotland setting out anticipated expenditure and commitments.

Crown Estate Scotland's 2026 update for 16 ScotWind projects reported average anticipated Scottish commitment of £1.6 billion per project, compared with £1.4 billion in the original 2022 statements.

The statements cover areas including development, manufacturing, fabrication, installation and operations.

Scottish expenditure depends on whether Scottish companies possess the capacity, price competitiveness and technical capability to win those contracts when procurement occurs.

A turbine erected in Scottish waters can contain foundations, blades, towers, cables, electrical systems and specialist components manufactured in several countries.

Offshore wind capacity and Scottish industrial value are therefore separate measurements.

The supply chain has to commit before every turbine is certain

The sequencing creates a recurring industrial problem.

Manufacturers need evidence of sufficient future orders before investing in factories.

Ports need confidence in project volumes before financing new quays and assembly areas.

Colleges need information about labour demand before expanding specialist training.

Workers need evidence of durable employment before retraining from established sectors.

Developers, meanwhile, seek evidence that ports, factories, vessels, trained workers, grid capacity and electricity-market support will exist before taking final investment decisions.

The result can be a dependency cycle in which each part of the supply chain waits for greater certainty from another.

The Scottish Government has begun funding some of that capacity directly.

Its Offshore Wind Skills Programme was established in 2026 with £3.85 million.

On 28 August, three additional projects received £861,000, taking programme awards to £2.54 million.

Ayrshire College received £280,000 for training through the Scottish Wind Technician Education Centre.

The National Manufacturing Institute Scotland received £466,000 for an Offshore Wind Skills Accelerator including paid placements for final-year engineering students.

STEM Returners and Global Underwater Hub received £115,000 for placements aimed at professionals returning to work and workers transferring from oil and gas, subsea, maritime and defence.

The programmes are preparing people for employment in a pipeline whose eventual construction scale remains dependent on project, market and system decisions.

The North Sea workforce is part of the same calculation

Scotland's offshore wind expansion is occurring alongside declining production from the mature North Sea oil and gas basin.

The workforce connection is frequently described as a transfer of skills.

Some skills do transfer directly or with additional training: subsea engineering, marine operations, project management, fabrication, inspection, electrical engineering and offshore safety all have applications across several offshore energy industries.

The timing is less straightforward.

Oil and gas employment exists now. Many ScotWind projects remain in development and consenting.

A worker cannot transfer into a job that has not yet been created.

Offshore Energies UK estimates Scotland's wider offshore energy sector supports 128,400 jobs and contributed £24 billion to the Scottish economy in 2024. Its policy position is that oil and gas, offshore wind, hydrogen and carbon capture should develop as an integrated energy system rather than treating employment in one sector as an automatic replacement for another.

The volume and timing of offshore wind construction therefore affect labour-market planning in Aberdeen, Aberdeenshire, the Highlands and other communities connected to North Sea activity.

The Scottish seabed has already produced public revenue

The economics begin before electricity generation.

ScotWind developers paid approximately £755 million in option fees for development rights.

Crown Estate Scotland manages offshore renewable rights as part of the Scottish Crown Estate and transfers its net revenue to the Scottish Government.

Crown Estate Scotland reported that leasing of its land and seabed generated £134.9 million of income in 2023-24, with the majority transferred for Scottish public spending.

Once operational seabed leases begin, offshore wind projects can create further rental income.

That is separate from corporation tax, employment tax, business rates, electricity-market payments and supply-chain spending, each of which follows different fiscal arrangements.

The Scottish Government therefore participates directly in one part of offshore wind economics through management of the seabed while the market framework governing electricity revenues is largely determined

at UK level.

The next decision will not decide which individual Scottish wind farms are built

The Strategic Spatial Energy Plan is not an offshore wind consenting process.

NESO states that it will not choose individual projects.

The plan will instead identify broad zones, capacities and technologies considered appropriate for a future Great Britain energy system.

Individual developers will still require consent, finance and market access.

Several projects can therefore compete within a zone even where the SSEP contains capacity for only part of the current development pipeline.

That introduces a new form of competition.

ScotWind originally determined which developers received the right to explore particular areas of Scottish seabed.

The later energy-planning system may determine how much generation the wider system assumes should emerge from those waters.

Electricity-market auctions can then determine which projects secure revenue contracts.

Grid connection reform can determine when individual schemes gain access to transmission capacity.

Planning and marine processes determine whether projects receive consent.

Final investment decisions determine whether shareholders and lenders are prepared to finance construction.

There is no single approval from which an offshore wind farm inevitably follows.

Scotland's offshore wind numbers now exist in three forms

There is leased capacity.

There is system-planned capacity.

And there will eventually be built capacity.

The first is already large.

Crown Estate Scotland's economic assessment places ScotWind at around 31 GW and INTOG at around 5.4 GW.

The second is now being determined through the SSEP.

The third will emerge over many years from planning decisions, Contracts for Difference, grid development, financing, construction costs, supply chains and technology performance.

The difference between those numbers will determine much of Scotland's offshore wind economy.

Ports cannot service capacity that is never built. Fabricators cannot manufacture components for projects that do not reach final investment decision. Colleges cannot create permanent employment by training workers for an industry whose construction sequence is delayed. Electricity consumers do not receive power from seabed leases.

Equally, an energy system cannot simply accept every proposed generator regardless of total demand, network cost, environmental constraints and the balance between technologies.

The SSEP was created to make those choices at system level rather than allow them to emerge from a collection of individual projects.

The six pathway options submitted on 28 August bring those two planning systems together.

Scotland has already allocated large areas of seabed, collected option fees, received project applications, encouraged ports and supply-chain companies to invest, funded workforce programmes and constructed economic policy around the expectation of major offshore wind development.

NESO has now completed the next stage of modelling how much electricity generation Great Britain may require and where it could be located.

The Energy Secretary will select the pathway that moves forward to the draft SSEP.

The draft plan is expected to enter public consultation in early 2027.

Only after the six pathways become public will it be possible to compare them directly with the full ScotWind and INTOG portfolio and calculate which portions of Scotland's leased offshore wind capacity appear in each modelled future.

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COMMUNITY | 3 September 2026

Scotland Has a Migration Map Now. It Shows a Country Moving in Different Directions

Read online: <https://modern.scot/scotland-has-a-migration-map-now-it-shows-a-country-moving-in-different-directions/>



New population and migration material published this week makes it possible to examine Scotland below the national total. The figures describe a country in which population growth, ageing, migration and the loss of younger residents are distributed unevenly between cities, accessible communities, remote towns, rural Scotland and the islands.

National Records of Scotland published a new collection of local migration indicators on 1 September, alongside a substantial release of small-area population statistics rebuilt around the geography of Scotland's

2022 Census.

The releases arrived two days after the Scottish Government published a new migration policy paper setting out proposals for Scottish, Rural and Graduate visas.

Taken together, the documents provide a different way of examining Scotland's population.

The national figure remains historically high. Scotland's population reached about 5.55 million in 2024. But the national total combines places gaining population with places losing it, communities becoming younger with communities becoming older, and areas attracting working-age residents with areas in which the working-age population is contracting.

The new small-area analysis divides Scotland into 7,392 data zones, generally containing between 500 and 1,000 people. It also reconstructs population estimates from 2011 to 2024 using the new 2022 Census geography, allowing changes to be examined below council level and across Scotland's urban-rural classification.

The resulting map does not describe a single Scottish population trend.

It describes several.

Remote Scotland is losing children

Between 2014 and 2024, the number of children aged under 16 living in remote rural Scotland fell by 9.4 per cent.

In remote small towns, it fell by 10.4 per cent.

The working-age population moved in the same direction.

The number of people aged 16 to 64 fell by 6.5 per cent in remote rural areas and by 7.7 per cent in remote small towns.

Over the same decade, the population aged 65 and over increased in every one of the six categories used in the Scottish Government's urban-rural classification.

The median age in remote rural Scotland is now 53.

In Scotland's large urban areas it is 39.

These figures describe a demographic change extending beyond the number of people living in a place.

A community can retain a relatively stable total population while changing substantially in age. An increase in older residents can coincide with a reduction in children and working-age adults.

The consequences appear in institutions that are normally considered separately from population statistics.

Schools depend on children.

Care services depend partly on working-age staff.

Local businesses require workers and customers.

Public transport depends on sufficient demand or public subsidy.

Health services must operate in places where the population requiring care may be increasing while the population available to provide it is falling.

Housing demand can remain high even where the permanent population is ageing or declining because household size, second homes, tourism, retirement migration and property availability operate independently of the headline population total.

Remote small towns have been shrinking throughout the decade

National Records of Scotland found that remote small towns were the only category in Scotland's urban-rural classification to experience continuous population decline throughout the decade from 2014 to 2024.

That places them in a different demographic position from large urban Scotland.

Large urban areas increased their population in all but one year during the same decade.

The working-age population of large urban areas increased by 5.6 per cent.

Seventy-two per cent of Scotland's population now lives in urban areas.

The concentration is not simply a movement from countryside to city. Scotland's population geography is affected by births, deaths, internal movement within Scotland, migration between Scotland and the rest of the UK and international migration.

Each can move in a different direction.

A council area may gain people internationally while losing residents to another part of Scotland. A rural area may attract people approaching retirement while losing younger adults. A city may gain students and

international workers while also experiencing outward movement of families into surrounding council areas.

A national net migration number compresses those movements into a single total.

Scotland gains people from the rest of the UK

The Scottish Government's migration paper, published on 29 August, reports that 50,200 people moved from the rest of the UK to Scotland in the year to mid-2025.

During the same period, 41,600 people moved from Scotland to the rest of the UK.

The resulting net gain was 8,600.

Scotland has consistently attracted more people from elsewhere in the UK than it has lost in recent years.

That movement forms only one part of the population balance.

International migration has also contributed substantially to population growth, particularly during the period of unusually high UK migration following the pandemic.

The scale of UK net migration has since fallen sharply.

According to the Scottish Government's August paper, UK long-term net migration reached approximately 944,000 in the year ending March 2023. By the year ending December 2025 it had fallen to 171,000.

The Government calculates that as a reduction of around 82 per cent from the peak.

Scotland's demographic projections were already moving towards slower growth before that change.

Deaths are projected to exceed births by increasing margins

Scotland's population grew from approximately 5.11 million to 5.55 million over the past 20 years.

Current projections indicate that growth will slow substantially.

The Scottish Government's new migration paper, drawing on National Records of Scotland projections, says the population is expected to remain broadly stable until the early 2030s.

It is projected to reach approximately 5.56 million in 2033 before beginning a sustained decline.

By 2049 the projected population is around 5.47 million.

The demographic mechanism is already established.

Deaths exceed births.

Migration currently offsets that natural decrease.

The projected natural population change becomes increasingly negative over the coming decades. The Government's paper reports projected natural change of minus 31,600 by 2049, while net migration is projected at around plus 21,900.

Under those assumptions, migration remains positive but is no longer large enough to offset the difference between births and deaths.

Population decline would therefore occur even while Scotland continued to attract more people than it lost through migration.

The age structure is changing at the same time

Between 2024 and 2049, Scotland's population aged 75 and over is projected to increase by more than 300,000.

The population aged 0 to 15 is projected to fall by more than 165,000.

The number aged 16 to 29 is projected to fall by almost 158,000.

Together, those two younger groups are projected to decrease by more than 320,000.

The share of the population above pension age is projected to rise from 19.2 per cent in 2024 to 22.5 per cent in 2049.

The working-age share is projected to move from 64.6 per cent to 64.1 per cent.

The national percentage change in working-age population appears relatively modest. Its geographical distribution is not.

The Scottish Government identifies Na h-Eileanan Siar, Shetland and Dumfries and Galloway among areas where both the working-age population and the number of children declined over the decade to 2025.

It reports that 20 of Scotland's 32 council areas experienced an overall population decline during the most recent reporting year.

A national population that remains close to 5.5 million can therefore coexist with substantial demographic contraction across much of the country.

The cities are not growing evenly either

The new small-area statistics also show that population change inside council boundaries is uneven.

National Records of Scotland found that 58 per cent of Glasgow's data zones increased in population.

In Stirling and Edinburgh, 50 per cent increased.

At the other end of the range, 24 per cent of data zones in South Ayrshire increased, compared with 25 per cent in East Ayrshire and 26 per cent in North Ayrshire.

NRS says population growth tends to be concentrated in a relatively small number of data zones, sometimes because of new housing development, while population decline tends to be spread across a larger area.

This produces another problem with council-wide totals.

A local authority can record overall growth because several large housing developments add thousands of residents while older neighbourhoods within the same authority lose population.

The opposite can occur where an apparently stable council population conceals different movements between towns, villages and neighbourhoods.

The 2022 Census data-zone geography now provides a more detailed basis for following those changes.

Migration is connected to housing because people require somewhere to settle

The Scottish Government's current migration policy is based partly on attracting people to communities with declining populations.

That objective intersects with housing supply.

A job vacancy does not create a house.

A visa does not create a house.

A community can have employment demand and still be unable to retain workers if suitable permanent housing is unavailable.

The interaction is particularly visible in parts of rural and island Scotland where employers report recruitment difficulties while housing markets contain combinations of high prices, limited rental supply, second homes and short-term visitor accommodation.

The Scottish Government's Addressing Depopulation Action Plan already recognises housing, transport, digital connectivity, employment and public services as connected elements of population sustainability.

The new migration proposals therefore enter a system in which immigration policy is only one variable.

Attracting a worker to a remote community and retaining that worker for ten years are separate outcomes.

Scotland cannot currently create the visas it is proposing

Immigration is reserved to the UK Parliament and UK Government.

The Scottish Government cannot independently establish a Scottish Visa, Rural Visa or Scottish Graduate Visa under the current devolution settlement.

Its 29 August paper asks the UK Government to create tailored routes within the UK immigration system.

The proposed Scottish Visa would be designed around Scotland's demographic and economic requirements.

The Rural Visa proposal is intended to provide a route specifically connected to communities experiencing depopulation and labour shortages.

The proposed Scottish Graduate Visa would provide an immigration route for international graduates who had studied in Scotland and wished to remain.

The Government is also seeking changes within existing UK routes rather than relying entirely on new visas.

It argues that immigration rules designed around UK-wide salary levels, occupations and labour-market conditions do not always correspond to Scottish sectors and places.

The UK Government controls whether any of those proposals proceed.

Scotland has previously had a post-study immigration route

The proposal for a Scottish Graduate Visa has a historical predecessor.

The Fresh Talent: Working in Scotland Scheme operated from 2005 until 2008.

It allowed eligible international graduates from Scottish institutions to remain in Scotland for up to two years after completing their studies without requiring a work permit.

The scheme was introduced when population decline occupied a more prominent position in Scottish policy. It was subsequently absorbed into the UK points-based immigration system.

The demographic conditions are different in 2026.

Scotland's population is higher than it was when Fresh Talent was introduced.

The issue described in the latest projections is not immediate national population collapse.

It is the combination of an ageing population, sustained negative natural change, projected reductions in younger age groups and geographical decline across parts of rural, island and southern Scotland.

Universities also create a particular migration pathway because international students are already resident in Scottish cities and towns, have qualifications from Scottish institutions and have spent time living in the country before entering the labour market.

Whether they remain depends partly on UK immigration rules.

Social care shows how migration policy enters public services

The Scottish Government's migration paper identifies adult social care as one of the sectors affected by changes to UK immigration policy.

The UK Government closed the overseas route for new care-worker visa applications in July 2025 as part of wider immigration reforms.

Scotland subsequently created an Adult Social Care Displaced Worker Scheme for international workers already in the UK who had lost sponsored employment, including cases where an employer lost its sponsorship licence.

The scheme closed to new applicants on 21 August 2026.

Social care illustrates the relationship between demography and workforce supply.

An ageing population increases demand for care.

A shrinking or slowly growing working-age population reduces the domestic pool from which care workers can be recruited.

Remote areas can face additional recruitment difficulties because of housing, transport and travel distances.

Immigration rules determine which international workers can enter or remain in that labour market.

The same interaction exists in other sectors, including health, hospitality, food production, construction, universities and parts of the rural economy.

Migration can increase population without reversing ageing

Migration is frequently presented as a numerical answer to population decline.

The demographic effect depends on who arrives, how old they are, whether they bring or establish families, where they settle and how long they remain.

Working-age migration can increase the labour force immediately.

It can also increase births if migrants settle permanently and have children.

But migrants themselves age.

Maintaining a particular age structure through migration alone would require continuing inflows if birth rates remained low and life expectancy remained high.

The Scottish Government's own paper states that migration cannot reverse all of Scotland's demographic pressures.

Its argument is that migration can support population sustainability, labour supply and community resilience while other policies address housing, skills, economic development and public services.

The new geography allows population policy to be tested at a smaller scale

Scotland has often discussed population through national totals.

The statistical infrastructure now permits a more local examination.

The Local Area Migration collection brings together migration indicators for council and NHS board areas.

The new small-area population estimates use 7,392 data zones based on the 2022 Census.

Additional tables published on 1 September reconstruct population estimates for electoral wards, Scottish Parliament constituencies, UK Parliament constituencies, island regions and the Scottish Government's urban-rural classification.

Those datasets allow questions about population sustainability to be attached to actual geography.

Where is the number of children falling?

Where is the working-age population growing?

Which areas are ageing fastest?

Where does migration compensate for natural population decline?

Which places attract people but fail to retain them?

Which apparently declining areas contain individual communities that are growing?

Which growing councils contain neighbourhoods losing population?

And where does new housing alter the population trajectory?

The answers will not necessarily follow council boundaries.

Scotland's population policy is becoming a policy about place

The releases published between 29 August and 1 September put two developments beside each other.

The Scottish Government is seeking greater geographical flexibility in immigration policy.

National Records of Scotland is producing increasingly detailed evidence showing why population pressures differ geographically.

Remote rural areas lost 9.4 per cent of their children between 2014 and 2024.

Remote small towns lost 10.4 per cent.

The working-age population fell by 6.5 per cent in remote rural areas and 7.7 per cent in remote small towns.

The median age in remote rural Scotland reached 53 while the median age in large urban Scotland was 39.

Large urban areas increased their working-age population by 5.6 per cent.

Scotland as a whole continued to gain population through migration.

These are simultaneous features of the same country.

The next phase of Scottish population policy will therefore operate across several systems at once: immigration, housing, universities, employment, transport, schools, health, social care and regional development.

The new statistics provide a more detailed map on which the results can eventually be measured.

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Other Geographies: Mid-2011

ECONOMY | 3 September 2026

Scotland Is Preparing to Change Council Tax After 35 Years of 1991 Property Values

Read online: <https://modern.scot/scotland-is-preparing-to-change-council-tax-after-35-years-of-1991-property-values/>



The Scottish Government has confirmed that a Council Tax Bill will be introduced during the first year of the new Parliament. Two new bands for homes worth more than £1 million will arrive first. Behind them sits a larger question that successive governments have left unresolved: whether a property tax based almost entirely on values from 1991 can continue to finance Scottish local government.

Scotland's Council Tax system begins with a date.

1 April 1991.

Every ordinary home currently placed in Council Tax Bands A to H is classified according to an estimate of what that property would have sold for on that date.

A home built subsequently is also assigned a band by estimating what its value would have been in 1991.

The tax itself did not begin until 1 April 1993, when Council Tax replaced the Community Charge. Yet the property market against which most Scottish homes are still measured belongs to the beginning of the previous decade.

The Scottish Government has now confirmed legislation that will begin changing the system.

Its Programme for Government, published on 1 September, includes a Council Tax (Scotland) Bill among the nine Bills planned for the first year of the new Parliament.

The Bill will create two additional Council Tax bands for high-value homes from 1 April 2028 and provide an opportunity to modernise other parts of the Council Tax framework. The Government also intends to give councils additional discretionary powers.

The new bands are already being developed through a consultation launched in August.

Band I would apply to properties with current values between £1 million and £2 million.

Band J would apply to properties worth more than £2 million.

Unlike the existing eight bands, these two would be based on contemporary property values.

That produces a Council Tax system in which the highest-value homes will eventually be measured using one valuation period while almost every other home continues to be measured against another.

The house next door is not being taxed on what it is worth today

The current bands show how deeply 1991 remains embedded in Scottish local taxation.

Band A covers properties estimated to have been worth less than £27,000 in April 1991.

Band B runs from £27,001 to £35,000.

Band C runs from £35,001 to £45,000.

Band D runs from £45,001 to £58,000.

Band E covers £58,001 to £80,000.

Band F covers £80,001 to £106,000.

Band G covers £106,001 to £212,000.

Band H contains every property valued above £212,000 on the 1991 basis.

There is no further valuation band above it.

A property that would have been worth £220,000 in 1991 and one that would have been worth several times that amount therefore occupy the same existing Council Tax band.

The Scottish Government describes this as a weakness at the upper end of the system.

The problem extends beyond very expensive homes because property values have not moved uniformly across Scotland during the intervening 35 years.

Edinburgh has experienced one pattern of property growth. Glasgow has experienced another. Aberdeen's housing market has been affected by successive cycles in the North Sea economy. Island communities, commuter settlements, former industrial areas, rural towns and parts of the Highlands have followed different trajectories.

A house that stood in one relationship to another house in 1991 may occupy a very different relationship to it in 2026.

The Scottish Government acknowledged this directly in its consultation on high-value bands. It states that property markets across Scotland have changed substantially and unevenly since 1991.

A home can therefore remain in a relatively low Council Tax band based on its historic value while having a substantially higher current market value than another home occupying Band G or H.

The reverse can also occur. A property historically placed in a high band may have experienced much slower subsequent appreciation.

Most Scottish homes sit below Band E

The distribution of homes across the bands shows the structure on which the tax operates.

Scottish Government local-government finance statistics recorded 2,602,545 chargeable dwellings in September 2024.

Of those, 497,867 were in Band A.

Another 581,576 were in Band B.

Band C contained 423,304 homes.

Band D contained 365,001.

Together, Bands A to D accounted for almost 72 per cent of chargeable dwellings.

Band E contained 362,354 properties, Band F 217,954 and Band G 140,162.

Only 14,327 properties were in Band H.

That was 0.6 per cent of the total.

The existing system is therefore heavily concentrated in its lower and middle bands, while the upper band covers a very small share of the housing stock.

The Government estimates that the proposed new Bands I and J will affect fewer than one per cent of Scottish properties.

The overwhelming majority of homes will continue to be classified using 1991 values.

Scotland has already changed the tax without changing the valuations

The absence of a general revaluation does not mean Council Tax has remained completely unchanged since 1993.

Councils set their own Band D charge each year, and the charges for the other bands are calculated from it using statutory ratios.

The Scottish Government changed those ratios for Bands E to H from 2017-18, increasing the amount charged to homes in the upper existing bands relative to Band D.

The valuation date itself remained untouched.

Governments have also used discounts, exemptions, Council Tax Reduction and other mechanisms to alter what individual households pay.

Councils can apply increased charges to some second homes and long-term empty properties.

The underlying property map has remained based on 1991.

That has allowed governments to change the distribution of liability without undertaking the much larger administrative and political exercise of valuing Scotland's domestic property stock again.

A national revaluation would produce winners as well as losers

Revaluation is sometimes described as though it automatically means higher Council Tax.

A revaluation determines relative property values. It does not by itself determine how much revenue government chooses to collect.

If every Scottish home were revalued, some properties would move upwards relative to others. Some would move downwards. Others could remain in broadly similar positions.

The outcome would depend on the new band structure, the valuation date, the ratios between bands and the

Band D rates subsequently set by councils.

The difficulty comes from 35 years of unequal property-price movement.

Any revaluation would reveal where homes have appreciated faster than the national pattern and where they have appreciated more slowly.

That creates a geographical redistribution inside a tax that funds local services.

It also creates household-level consequences that do not always correspond neatly with income.

A household can occupy a valuable property while receiving a relatively modest income. Older homeowners who bought decades ago are one example. A substantial increase in the assessed value of their home does not necessarily produce additional cash with which to pay an annual tax bill.

Council Tax Reduction and other protections can address some circumstances, but property value and household income remain different measures of ability to pay.

The new £1 million threshold requires Scotland to value properties again

The two new bands cannot be created simply by looking at the existing Council Tax register.

The Government needs to establish which properties are currently worth more than £1 million.

That means undertaking a targeted contemporary valuation exercise.

The Scottish Budget allocated £5 million towards preparing for the change.

Band I is intended to cover homes worth between £1 million and £2 million.

Band J will cover homes worth more than £2 million.

Properties below £1 million will remain within Bands A to H according to the existing framework.

The Government's consultation proposes that existing protections, discounts, exemptions and Council Tax Reduction arrangements should continue to operate for properties entering the new bands.

The approach therefore does not replace Council Tax with a new property tax. It adds two contemporary-value bands to the top of the existing system.

The boundary creates its own valuation problem

A property assessed at £995,000 and one assessed at £1.005 million may be extremely similar.

Under a banded system, one could remain in Band H while the other enters Band I.

The same issue occurs around the £2 million threshold between Bands I and J.

Valuation therefore becomes particularly consequential around each boundary.

Scotland already has a system for Council Tax valuation and appeals, administered through assessors and the Scottish Courts and Tribunals Service framework.

The addition of bands based on current rather than historic values creates a new class of valuation decisions in which relatively small differences in estimated market value can alter annual tax liability.

The Chartered Institute of Taxation and Low Incomes Tax Reform Group raised this issue in their response published this week. They said councils could expect valuation challenges from households whose properties sit close to the proposed £1 million and £2 million boundaries.

The proposed bills are around £4,770 and £7,650 at current average rates

The final rates for Bands I and J have not been decided.

The Government consultation provides illustrative figures.

For Band I, it is examining a multiplier of approximately 2.886 times the Band D charge.

Using the average Scottish Band D charge for 2026-27, that would produce an annual Council Tax bill of around £4,770.

For Band J, the illustrative multiplier is approximately 4.628.

That would produce an annual charge of around £7,650.

Compared with the average Band H charge, the Government estimates that a Band I property would pay approximately £720 more each year.

A Band J property would pay around £3,600 more.

Because individual councils set their own Band D rates, the actual cash charge would vary geographically.

The final multipliers will be determined following consultation and require parliamentary approval.

The expected revenue is £12 million to £16 million a year

The Government estimates that the two bands could raise between £12 million and £16 million annually at the illustrative rates.

The money would be retained by local government.

Scotland's councils billed £3.389 billion in Council Tax in 2025-26 after Council Tax Reduction.

They collected £3.227 billion by the end of the financial year, producing an in-year collection rate of 95.2 per cent.

Against a system raising more than £3 billion annually, £12 million to £16 million represents a relatively small addition to total Council Tax income.

The policy consequently changes the tax structure at the top more than it changes the overall financing of Scottish local government.

Councils remain heavily dependent on funding from the Scottish Government alongside Council Tax, non-domestic rates income, fees, charges and other sources.

Council Tax was never designed to carry local government by itself

Council Tax is sometimes discussed as though it were the principal source of council finance.

It is one component.

Scottish councils deliver schools, social work, roads, waste collection, housing functions, planning, environmental health, libraries, leisure services and many other statutory and discretionary functions.

The majority of their funding comes through the wider local-government finance settlement rather than directly from Council Tax.

That relationship gives the Scottish Government substantial influence over local-government finances even though councils determine their annual Council Tax rates.

The balance between national funding and locally raised taxation has been a recurring part of the Council Tax debate.

A local tax gives councils a revenue source connected to their own decisions. Heavy dependence on central grants limits that fiscal autonomy. Greater reliance on property taxation would increase local revenue-raising responsibility but would also expose councils more directly to differences in their local tax bases.

A council containing large numbers of high-value homes does not have the same property base as a council dominated by lower-value housing.

Any wider redesign therefore has consequences for equalisation between Scotland's 32 local authorities.

The system replaced another local tax that had become politically unsustainable

The history of Council Tax cannot be separated from the Community Charge.

Domestic rates had previously taxed households according to the rental value of property.

The Community Charge replaced domestic rates in Scotland in 1989, one year before its introduction in England and Wales.

Commonly known as the poll tax, it charged adults rather than properties and generated widespread political opposition.

Council Tax replaced it in 1993.

The new system deliberately combined property value with household circumstances. It created valuation bands rather than taxing every property at an individually calculated percentage of its market value.

It also retained a personal element through measures such as the 25 per cent single-person discount.

The banding system reduced the need for continuous precise valuations because properties only had to be placed within ranges.

That administrative simplicity contributed to the longevity of the system.

The same longevity created the present valuation problem.

Scotland has been discussing reform for years

Council Tax reform has appeared repeatedly in Scottish political programmes.

A Commission on Local Tax Reform established by the Scottish Government and COSLA reported in 2015.

Its work concluded that the existing system required substantial reform and examined alternatives including a more progressive property tax, a land-value tax and local income tax.

No wholesale replacement followed.

The subsequent change to Bands E to H altered liabilities within Council Tax instead.

The previous Scottish Parliament returned to the issue through the Future of Council Tax in Scotland consultation and wider engagement with local government and political parties.

The present Government says the new Bands I and J do not predetermine the outcome of that wider process.

The Council Tax Bill announced this week is consequently both a specific measure and part of a longer reform programme.

Wales has already revalued its Council Tax base once

Scotland is not the only part of Britain to have inherited Council Tax from the early 1990s.

England continues to use property values from 1991.

Wales carried out a revaluation using 2003 property values, which took effect in 2005. Its band structure was changed at the same time.

Wales has since undertaken further work on Council Tax reform and revaluation.

Scotland has not carried out an equivalent general revaluation.

The different approaches demonstrate that the use of 1991 values is not an unavoidable characteristic of Council Tax. It is a policy choice maintained through successive governments.

Property wealth has become more geographically uneven since the valuation date

The Scotland of April 1991 had a different housing market.

The Edinburgh property boom associated with the city's expansion as a financial, professional and governmental centre had decades still to run.

The Scottish Parliament did not exist.

The regeneration of parts of Glasgow had not reached its present stage.

The oil economy continued to shape Aberdeen and Aberdeenshire differently from later periods of expansion and contraction.

Short-term letting platforms had not been created.

Large parts of the modern commuter housing market around Edinburgh, Glasgow, Aberdeen, Inverness, Stirling and Perth had yet to be built.

Many contemporary developments did not exist.

The Highlands and islands were operating under different demographic and housing pressures.

Property values have subsequently incorporated changes in employment, transport, university expansion, tourism, second-home demand, migration, regeneration, school catchments and access to services.

Council Tax largely preserves the relative values that existed before those changes occurred.

A £1 million home is not distributed evenly across Scotland

The new bands will therefore have a geographical pattern.

Properties above £1 million are concentrated disproportionately in particular markets, including parts of Edinburgh and its surrounding area and selected locations elsewhere in Scotland.

Some council areas will have substantially more Band I and J properties than others.

Because the additional revenue will remain with local government, the distribution of high-value property becomes part of the distribution of the new revenue.

The wider Scottish local-government funding system already contains mechanisms intended to account for different needs and tax bases.

The operation of the new revenue alongside those mechanisms will determine how much of the fiscal effect remains concentrated in the authorities containing the highest-value homes.

The tax is charged to occupants, not simply to property owners

The term “mansion tax” can obscure the legal structure being proposed.

Council Tax is generally a charge associated with occupation of a dwelling. Liability follows statutory rules identifying who is responsible for payment.

The new Bands I and J will operate within that framework.

They are not proposed as an annual wealth tax collected from the beneficial owner of every high-value residential asset regardless of occupation.

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POLICY AND GOVERNMENT | 3 September 2026

Scotland Is Preparing to Put Legal Price Ceilings on Food, Potentially Selecting Imported Food Over Scottish Food

Read online: <https://modern.scot/scotland-is-preparing-to-put-legal-price-ceilings-on-food/>



The Scottish Government has now published the first detailed framework for statutory controls on the price of essential food. What began as an election proposal has reached consultation with draft legislation, proposed retailer thresholds, enforcement powers and an unresolved question running through the entire scheme: where in the food chain does the cost of cheaper food eventually land?

On 1 September 2026, the Scottish Government opened a consultation on legislation that would allow ministers

to set maximum prices for selected essential foods sold by large grocery retailers in Scotland.

The proposal has moved considerably beyond the original commitment to place price ceilings on a basket of basic goods. The consultation is accompanied by illustrative provisions for a Food Price Cap (Scotland) Bill, a partial Business and Regulatory Impact Assessment, nutritional work from Food Standards Scotland and an examination of comparable interventions overseas.

No final basket of foods has been selected. No capped prices have been set. No date has been established for the introduction of controls. The consultation remains open until 25 November.

What now exists is the outline of a regulatory system.

Under the model being considered, Scottish ministers would receive powers to specify which foods were subject to a maximum price, determine the level of that price, alter the basket over time and decide which retailers were required to comply.

The Government is currently considering applying the scheme to grocery businesses with more than 250 employees, turnover above £250 million and the majority of their turnover derived from grocery sales. Smaller shops and convenience retailers would initially sit outside that definition.

Local authorities could become responsible for enforcement.

The proposal therefore reaches considerably further into the structure of the Scottish food economy than a temporary supermarket promotion. It creates a possible new relationship between government, large retailers, food manufacturers, farmers, fishers, processors, wholesalers and consumers.

Food is almost 40 per cent more expensive than five years ago

The policy has emerged after one of the largest sustained increases in food prices experienced by Scottish households for decades.

The Scottish Government says food prices have increased by just under 40 per cent over the past five years and have risen faster than average incomes.

The sharpest phase of food inflation followed the pandemic and Russia's invasion of Ukraine, although the causes were wider than either event. Energy prices increased the cost of processing, refrigeration, manufacturing and distribution. Fertiliser prices rose. Transport costs increased. Labour costs changed. Commodity prices moved sharply. Weather and harvest conditions affected individual products. Brexit altered parts of the food trading and labour environment.

The inflation rate later fell, but falling inflation does not reverse previous price increases. It means prices are increasing more slowly.

A household buying food in 2026 therefore remains exposed to the accumulated increase that occurred during the earlier inflationary period.

The Government's most recent poverty statistics estimate that around 940,000 people in Scotland were living in relative poverty after housing costs during the 2022-25 reporting period. About 600,000 working-age adults were estimated to be in relative poverty after housing costs.

Food expenditure is unevenly distributed across household incomes. A household with little disposable income has less capacity to respond to higher food prices by reducing savings, postponing discretionary purchases or absorbing temporary increases.

That is the economic basis on which the proposed cap is being built.

Scotland is not proposing to cap every packet of bread or every bottle of milk

The consultation does not propose a universal maximum price for entire categories of food.

Ministers could define qualifying products with considerable precision.

A regulated product could be described by its weight, volume, ingredients, nutritional characteristics, packaging or whether it was fresh, frozen, tinned, loose or pre-packed.

A regulation could therefore apply to a specified size of milk container, a particular type and weight of bread, a pack of eggs meeting defined criteria or a category of pasta.

The Government is considering whether regulations should require every qualifying product within a category to meet the cap or whether retailers should instead be required to make at least one compliant product available.

The second model resembles approaches used elsewhere in Europe. A supermarket could continue selling more expensive branded versions while also carrying a regulated lower-priced product.

Food Standards Scotland has already begun examining what an essential basket could contain.

Its work uses dietary information from the 2024 Scottish Health Survey and the Eatwell Guide to examine foods commonly consumed in Scotland. It recommends excluding foods high in fat, salt and sugar from the capped basket and aligning product selection with nutritional guidance.

The process creates questions that do not arise in a conventional supermarket price promotion.

A government-defined basket has to accommodate different diets, allergies, religious requirements, household sizes and nutritional needs. It also has to deal with products whose costs vary seasonally.

Fresh vegetables do not have the same production economics throughout the year. Milk, eggs and meat carry different agricultural costs. Imported products are exposed to exchange rates and international supply conditions. A fixed statutory ceiling has to operate while those underlying costs continue moving.

The Government has not decided how the maximum price would be calculated

Several possible methods remain open.

Ministers could set the initial cap below the prevailing market price, creating an immediate reduction for shoppers.

They could base it on an average or median of observed supermarket prices.

They could establish a reference period and calculate the ceiling from historic prices.

The Government is also asking how prices should be adjusted after the cap is introduced.

This is one of the central technical problems in the policy.

A maximum price that never changes can become detached from production costs. A cap that changes frequently may provide little protection from inflation. A formula linked directly to market prices risks following the market it is intended to restrain.

Scotland would also have to decide whether the same regulated price should apply from central Glasgow to Shetland.

Retail distribution costs are not geographically uniform. Transporting refrigerated goods to islands or remote communities can cost more than supplying densely populated urban markets. National pricing is already common among major supermarket chains, but not every part of the grocery market operates on identical economics.

The consultation asks whether one price should apply across Scotland or whether geography should enter the calculation.

The supermarket profit argument is more complicated than the headline numbers

Political arguments over food prices regularly turn to supermarket profits.

Large grocery companies can report annual profits measured in hundreds of millions or billions of pounds because they process enormous volumes of sales.

Absolute profit does not show the amount retained from each pound spent by customers.

The Competition and Markets Authority examined grocery profitability during the earlier food inflation period. Its work found that operating margins among grocery retailers had fallen as costs increased. Average operating margins among the retailers examined declined from 3.2 per cent to 1.8 per cent in 2022-23, while operating profits fell by 41.5 per cent.

The CMA concluded that high grocery inflation at that stage was not being driven across the market by weak supermarket competition.

That finding did not mean every part of the supply chain was behaving identically.

The CMA later examined individual product categories and found that some branded suppliers had increased their unit profitability while prices were rising. It also found that consumers frequently switched from brands to cheaper own-label products.

Baby formula produced a particularly concentrated market problem. The CMA found substantial price increases and examined the relationship between supplier pricing, brand loyalty and consumer choice.

The food chain therefore contains several separate margins.

A farmer receives one price. A processor adds another set of costs. A manufacturer may add ingredients, packaging, labour and branding. A distributor moves the product. A supermarket adds retail costs and margin. In some sectors there may be wholesalers or intermediaries between those stages.

A legal ceiling imposed at the final retail stage does not remove costs further down that chain.

Farmers are already regulated through a separate system designed to correct bargaining power

The relationship between supermarkets and food producers has been the subject of UK regulation for more than a decade.

The Groceries Supply Code of Practice followed a Competition Commission investigation into the grocery market. The investigation found that some large retailers could transfer excessive risks and unexpected costs to suppliers, potentially reducing investment and innovation.

The Groceries Code Adjudicator was established in 2013 to enforce the code. It regulates relationships between designated large grocery retailers and their direct suppliers.

Its remit does not cover every farmer.

Many primary producers sell to processors, manufacturers or other purchasers rather than directly to supermarkets. Their commercial relationship may therefore sit outside the Groceries Code.

Additional legislation has since appeared in agricultural supply chains. The Fair Dealing Obligations (Milk) Regulations 2024 introduced mandatory requirements for milk contracts, including written terms and clearer pricing arrangements. Separate regulations have been introduced for the pig sector.

The Scottish food-price proposal would sit on top of this existing regulatory structure.

The Scottish Government has so far decided against writing direct producer protection into the illustrative Food Price Cap Bill.

Instead, the consultation proposes that ministers consider effects on farmers, crofters, fishers and other businesses when deciding whether to set or alter a cap.

Possible safeguards include monitoring farmgate prices, wholesale prices and margins; temporary exemptions during major supply disruptions; periodic impact assessments; producer consultation; and powers to amend or suspend controls if adverse effects appear.

Those measures are not yet statutory guarantees.

A cheap Scottish supermarket shelf could be supplied from somewhere else

The origin of capped products creates another layer of the policy.

Scotland imports food from the rest of the UK and internationally while also producing large quantities of meat, dairy products, seafood, cereals, vegetables and processed foods.

If a capped product can be sourced more cheaply from outside Scotland, a retailer operating under a maximum selling price has a commercial reason to consider the lower-cost supplier.

The Government's own consultation acknowledges the possibility that consumers could switch from Scottish products to less expensive imported alternatives.

The same pressure can travel backwards through domestic purchasing contracts. If the shelf price is fixed while a retailer seeks to preserve its own margin, negotiations may move towards processors or suppliers.

The Government is asking consultees whether profits and margins can realistically be traced throughout different food supply chains.

In some products that can be difficult. Food may pass through several businesses, prices can be commercially confidential, contracts differ and commodity costs move continuously.

A policy designed around retail prices consequently requires information about production economics that government does not necessarily possess in real time.

Small shops would be outside the cap but still inside the market it creates

The proposed thresholds are intended to prevent independent shops and smaller grocery businesses from carrying the regulatory burden.

That does not remove the effect on them.

If a large supermarket is legally required to sell specified staples below a particular price, a smaller shop purchasing stock on less favourable wholesale terms may be unable to match it.

Convenience stores often have different property, distribution and purchasing economics from national chains.

The Government's own impact assessment identifies smaller grocery retailers as businesses that could be indirectly affected.

This has a geographical dimension.

Some rural and island communities have limited access to major supermarkets. A policy applying only to large chains could produce substantial savings for households living near qualifying stores while providing little direct benefit where the local food network consists mainly of smaller businesses.

The Government is already considering whether retailer coverage might eventually need to be widened to improve accessibility in rural and island communities.

Widening it would transfer regulatory obligations to businesses the initial thresholds were designed to

protect.

Local councils could be asked to police supermarket prices

The illustrative legislation proposes local-authority enforcement.

Councils could be required to monitor whether regulated goods sold in shops or online comply with the statutory ceiling.

The proposed model includes compliance notices, allowing a retailer an opportunity to correct a breach before further enforcement.

No final enforcement system has been chosen.

Local authorities already enforce substantial bodies of trading standards, consumer and food-related legislation. Their capacity varies across Scotland, and the proposed legislation would create another function requiring staff, systems and potentially specialist knowledge.

The Government's impact assessment lists councils among the organisations directly affected by the proposal but has not yet produced the final cost of enforcement.

Any legislation would therefore require a financial settlement for the regulatory machinery as well as a method for calculating food prices.

The UK Internal Market Act remains part of the legal architecture

Food moves across the border between Scotland and the rest of the United Kingdom within a single internal market.

The United Kingdom Internal Market Act 2020 created two market-access principles for goods: mutual recognition and non-discrimination.

The Scottish Government's current legal analysis treats a statutory food-price ceiling as a requirement governing the manner in which goods are sold.

On that analysis, the mutual-recognition principle is unlikely to nullify the price cap simply because a product was produced elsewhere in the UK.

The Act's non-discrimination provisions remain relevant.

Those provisions can restrict requirements that directly or indirectly disadvantage goods connected with another part of the United Kingdom.

The Scottish Government says the final relationship with the Act will depend on the design ultimately chosen.

The Institute for Fiscal Studies has also examined the constitutional position. Its analysis concluded that the Internal Market Act does not automatically prevent Scottish food price caps, although affected businesses could have routes to challenge a scheme. Questions could also arise over the boundary between devolved powers and reserved consumer-protection law.

The consultation additionally identifies competition law, international trade rules and World Trade Organization obligations among the legal frameworks requiring consideration.

Other European governments have already tried versions of this policy

Scotland would not be the first European jurisdiction to intervene directly in grocery prices.

Croatia introduced caps in 2022 and subsequently expanded the number of products and product categories covered.

Its model includes both specific capped products and categories in which retailers must provide at least one item below the regulated maximum.

Hungary introduced retail price caps on staples including sugar, flour, sunflower oil and milk in 2022. Eggs and potatoes were later added.

The Hungarian retail price-cap regime ended in 2023 and was replaced first by mandatory discounting and later by restrictions on retailer profit margins for selected products.

Hungary's intervention also generated litigation. In 2024, the Court of Justice of the European Union ruled that aspects of the earlier retail-price-cap system were incompatible with EU law because its market effects were disproportionate. The European Commission subsequently challenged Hungary's profit-margin restrictions.

The Scottish Government includes these examples in its own consultation and does not present any of them as a model Scotland has decided to copy.

The international record instead shows several available mechanisms: fixing final prices, limiting margins, requiring discounts, mandating a low-price product within a category, controlling mark-ups or combining food intervention with tax measures.

The legislation could also change what Scotland defines as essential food

Government intervention normally approaches food through several separate systems.

Food Standards Scotland deals with safety, nutrition and dietary evidence. Agricultural policy supports production. Social security supports household income. Councils and charities operate parts of the emergency food system. Competition regulation governs markets and retailer conduct. Public-health policy attempts to change consumption patterns.

A statutory essential-food basket would connect several of these systems in legislation.

Ministers would have to decide which foods qualify for public protection from price increases.

Food Standards Scotland recommends alignment with the Eatwell Guide and the exclusion of high-fat, salt and sugar products. Its analysis uses actual Scottish consumption data rather than constructing a theoretical diet without reference to what households buy.

The legislation could therefore turn nutritional advice into part of retail economic regulation.

That creates practical choices. White and wholemeal bread do not have identical nutritional profiles. Fresh, frozen and tinned vegetables can all form part of a balanced diet but have different cost structures. Meat and fish have varying prices and cultural roles. Plant proteins, dairy products and substitutes raise questions about dietary inclusion.

The Government also has to decide whether a regulated basket should reflect what Scottish households

currently eat or attempt to change what they eat.

A price cap treats one part of food poverty: the price

Scotland's food affordability problem is not created by food prices alone.

Household income, rent, mortgage payments, energy bills, disability costs, childcare, transport and debt determine how much money remains available for food.

Two households encountering the same supermarket prices can therefore experience very different levels of food security.

The proposed legislation addresses the price side of that equation. Social-security policy, wages, taxation and housing costs sit elsewhere.

Its eventual effect will depend partly on the size of the capped basket and partly on the gap between the regulated price and the price consumers would otherwise have paid.

A basket containing a small number of already inexpensive own-brand staples would have a different household effect from a broader basket with substantial mandated reductions.

The financial benefit would also vary according to what households buy.

Those decisions have not been made.

The consultation is now asking Scotland to design the mechanism

The proposal that entered the election as a commitment to cap the prices of essential groceries has become a series of more specific policy choices.

Which foods qualify.

Which retailers qualify.

How the maximum price is calculated.

Whether the same ceiling operates everywhere in Scotland.

How frequently it changes.

How farmgate and wholesale prices are monitored.

How product shortages are handled.

How independent retailers are affected.

How councils enforce it.

How Scottish products compete with imports.

How the legislation operates inside the UK internal market.

How nutritional policy enters the selection of food.

And how government determines whether the intervention has reduced household food costs without

transferring those costs elsewhere.

The Scottish Government has not claimed those questions are settled. Its own partial impact assessment identifies possible changes in product availability, effects on competition, administrative costs and impacts throughout the supply chain. It says no preferred option has yet been selected.

The consultation closes on 25 November 2026.

If legislation follows, Scotland will be moving into an area of economic regulation it has not previously used: government setting a legal maximum price for ordinary food sold on supermarket shelves.

The eventual legislation will determine whether that becomes a limited requirement to keep a small number of basic products available at controlled prices, or a broader intervention in the economics of Scottish food retail.

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POLICY AND GOVERNMENT | 3 September 2026

Scotland Is Building A Major Projects Office. What Will Change?

Read online: <https://modern.scot/scotland-is-building-a-major-projects-office/>



The Scottish Government has announced a new Major Projects Office to accelerate nationally significant investment in housing, energy and other strategic sectors.

Scotland does not have a shortage of proposed projects.

Across the country there are housing developments waiting on infrastructure, renewable-energy schemes waiting on grid connections, industrial projects requiring land and power, regeneration proposals

dependent on several public agencies, data centres seeking substantial electricity connections, transport projects moving through lengthy development processes and university research capable of producing companies if finance can be assembled around it.

The recurring problem is not always the absence of an idea or an investor.

It is often the distance between proposal and delivery.

That is the problem the Scottish Government says its new Major Projects Office is intended to address.

The office was announced in the Programme for Government for 2026 to 2031. Ministers say it will begin operating during 2026-27 and will concentrate on nationally and strategically significant investment and private-capital projects, initially including housing and energy.

Its stated purpose is to identify barriers, coordinate government and accelerate decisions.

That makes the proposal worth examining carefully, because Scotland has spent much of the devolution era creating agencies, strategies, funds and planning frameworks intended to encourage economic development.

The question is whether the Major Projects Office represents another institution within that landscape, or an attempt to change how the landscape itself works.

Scotland already has an investment system

The new office will not begin on an empty field.

Scotland already has Scottish Enterprise, Highlands and Islands Enterprise and South of Scotland Enterprise. It has the Scottish National Investment Bank. Local authorities exercise planning and economic-development functions. Transport Scotland manages national transport programmes. Scottish Water controls important infrastructure capacity. The electricity networks determine where and when major power connections can be made. NatureScot, SEPA and other regulators may become involved where developments affect the environment.

The Scottish Futures Trust works across infrastructure, investment and public assets. Universities, colleges, regional economic partnerships, city-region deals and local development bodies add further layers.

None of those organisations exists without a reason.

The difficulty arises when a project requires decisions from several of them at once.

A large housing development, for example, may have planning permission in principle but require road improvements, drainage capacity, schools, electricity infrastructure and public transport before construction can proceed at scale.

An industrial development may have an investor and a site but require a grid connection that cannot be delivered within the investor's timetable.

A renewable-energy project may be technically feasible but encounter separate planning, environmental, grid and transport processes.

Each individual decision can be rational when viewed from inside the organisation responsible for making it. Collectively, the sequence can make a project commercially difficult.

Economic development is not simply a question of whether Scotland approves or rejects projects. It is also a question of how long Scotland takes to reach a decision.

Time has economic value

For an investor, delay has a price.

Land may be held without producing income. Construction costs can change. Interest accumulates. Equipment prices move. Government incentives expire. Planning therefore forms part of Scotland's economic infrastructure even though it does not normally appear beside roads, ports or electricity networks in discussions about infrastructure.

The Programme for Government recognises this explicitly. Alongside the Major Projects Office, ministers say they intend to reform the planning and regulatory environment, strengthen Scotland's inward-investment capability and increase planning-system capacity.

The important word is capacity. Planning delays are sometimes presented as a consequence of regulation itself. That is only part of the picture.

A planning system can have strict environmental and development standards while still making decisions efficiently. Conversely, changing regulations does not necessarily accelerate decisions if planning authorities lack staff, specialist expertise or the resources required to assess complex applications.

Scotland therefore needs to distinguish between regulation that prevents development and administrative capacity that determines how quickly regulation is applied.

The housing connection

The inclusion of housing among the Major Projects Office's first strategic sectors is significant.

The Scottish Government has committed to investment intended to support 111,000 affordable homes by 2032, with at least 70 per cent intended for social rent. It has also established a First Homes Fund and a £50 million homelessness-prevention fund.

But housing numbers cannot be produced by housing policy alone because communities require water, sewerage, roads, schools, electricity and transport. In some areas the constraint is not planning permission for the houses themselves but the infrastructure required to support them.

That creates a coordination problem. The development can therefore be approved in theory while remaining difficult to deliver in practice.

A Major Projects Office capable of identifying those dependencies early could be useful. But usefulness will depend on authority. If the office can only convene meetings between organisations, it may improve communication without fundamentally changing delivery. If it has the ability to establish priorities across government, escalate unresolved decisions and coordinate infrastructure investment around nationally important projects, its role becomes materially different.

The Programme for Government has not yet established publicly where that boundary will lie.

The energy connection

Energy presents an even more complicated case.

Scotland produces large quantities of renewable electricity and has extensive proposed investment in onshore wind, offshore wind, transmission infrastructure, storage, hydrogen and energy-intensive industrial development.

But electricity infrastructure does not sit entirely within devolved government.

Energy markets and much of energy regulation remain reserved to Westminster. The electricity system is governed through UK-wide regulatory and market arrangements. Ofgem regulates the networks, while the National Energy System Operator has responsibilities extending across Great Britain.

Scottish planning powers can therefore determine whether some infrastructure is built while Scottish ministers do not control every economic and regulatory mechanism determining when it connects or how the electricity market values it.

This is one reason large Scottish energy projects can involve several governments, regulators, network companies, councils and communities.

The Major Projects Office will enter that environment.

It may be able to accelerate decisions within devolved competence. It cannot simply remove decisions belonging to regulators or the UK Government.

Scotland is also changing how it raises capital

The Major Projects Office forms part of a wider change in the Scottish Government's economic policy.

Ministers are advancing plans for up to £1.5 billion of Scottish Government bonds. The proposed borrowing has been described informally as Scottish government "kilts" and is intended to diversify capital funding and support long-term infrastructure investment.

The Government is also proposing a Scottish High Growth Unit, stronger relationships with institutional investors and pension funds, a Scottish Innovation Fund involving the Scottish National Investment Bank, and an expanded pipeline of investible projects.

Taken together, these policies suggest that Scotland is trying to build something more systematic than a collection of grants.

The emerging model appears to be one in which government identifies strategic sectors, prepares projects, removes delivery barriers, attracts private capital and uses public institutions to retain more economic activity in Scotland.

That is closer to an investment state than a conventional grant-making administration. Whether it works will depend heavily on project selection.

The danger of accelerating the wrong project

Speed is not automatically an economic good. Planning exists because developments have consequences. Major infrastructure can affect landscapes, biodiversity, water, roads, communities, archaeological sites and existing businesses. Housing development without adequate infrastructure can create different public costs later. Energy projects can produce national benefits while imposing highly localised impacts.

Modern Scot has previously examined precisely this tension in the Highlands, where major electricity-transmission proposals have raised questions about scheduled monuments, landscape change and the relationship between nationally required infrastructure and the places through which it passes.

The objective therefore cannot simply be to make decisions faster. It must be to make complex decisions faster without making them worse.

The regional question

The Scottish Government is simultaneously proposing substantial reform of local government.

John Swinney has opened a three-month discussion about creating stronger strategic regions while increasing decision-making within local communities. He has said some existing councils are too small to operate strategically while others are too large to feel local.

If that reform proceeds, Scotland may be moving towards a different economic geography.

Large infrastructure and investment decisions could increasingly be organised around regions rather than individual council boundaries. That would make sense for many economic systems because markets, transport networks and electricity infrastructure do not stop at council boundaries. Economies extend into surrounding authorities.

A Major Projects Office operating alongside stronger regional economic structures could therefore become part of a significant reorganisation of how Scotland plans investment.

What should be measured

The office should eventually be judged through evidence rather than the number of projects attached to its name.

Useful measures would include the time between investment proposal and final decision; the amount of private capital converted from announced interest into committed investment; the number of stalled projects resolved; the geographical distribution of investment; the amount of Scottish supply-chain activity generated; and the proportion of projects delivered within their revised cost and timetable.

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HERITAGE AND ARTS | 3 September 2026

Before GPS, Scotland's Coast Was a Map Made From Castles, Churches, Chimneys and Hills

Read online: <https://modern.scot/before-gps-scotlands-coast-was-a-map-made-from-castles-churches-chimneys-and-hills/>



Before GPS, Scotland's Coast Was a Map Made From Castles, Churches, Chimneys and Hills

In the middle of the nineteenth century, sailors approaching Scotland navigated through a landscape that has largely disappeared from modern experience. Church steeples, ruined castles, coal-pit chimneys, mills, glassworks and distant hills were not merely features of the country seen from the sea. They were working navigational instruments. A newly examined set of sailing directions from 1854 reveals how mariners turned the Scottish coastline into an immense visual map, and how the arrival of lighthouses slowly began to replace it.

In 1854, a ship approaching the east coast of Scotland might be steered by a ruined castle. Its master could be instructed to keep a church steeple open of a headland, to watch a coal-pit chimney until it aligned with the gable of a house, or to alter course when one distant hill appeared to touch another. The instructions could be extraordinarily precise. A building miles inland might tell a sailor that an invisible reef lay beneath his hull; the apparent movement of two steeples against one another might show that his ship had reached the entrance to a harbour.

This vanished system survives in *Sailing Directions for the Navigation of the North Sea*, a practical mariner's manual revised by the hydrographer J. S. Hobbs and published in London in 1854. Drawing on British and continental surveys, it guided ships through the North Sea and devoted extensive attention to Scotland's eastern coastline. Its pages carry the navigator from St Abb's Head into the Firth of Forth, around Fife and into the Tay, north past Angus and Aberdeen, around Buchan and the Moray Firth and eventually towards the northern extremities of mainland Scotland.

The book was not intended to preserve history. It was intended to keep ships off rocks. That practical purpose makes its descriptions unusually valuable, because the anonymous churches, houses, industrial structures and natural features recorded in its pages were included only when somebody at sea needed to recognise them. The result is a map of nineteenth-century Scotland organised according to an unfamiliar

principle: not political boundaries, roads or property, but visibility.

A country measured from the sea

Coastal navigation before electronic positioning combined several kinds of knowledge. Mariners carried charts and compasses, understood tides and currents, and repeatedly took soundings with the lead. By the nineteenth century they could also rely upon an expanding network of lighthouses, harbour lights, buoys and beacons. Yet the coastline itself remained one of their most important instruments. A conspicuous hill could become visible while the lower land remained below the horizon. Towers and steeples could be recognised above towns. Castles often occupied elevated positions. The industrial revolution added another category of exceptionally useful object: the tall, narrow chimney.

The essential technique was frequently an alignment, or transit. If two fixed objects ashore were known to lie upon a particular bearing, a navigator could watch them until they appeared to stand one behind the other. At that instant the vessel occupied the same line. Other instructions depended upon keeping one object a particular apparent distance to one side of another. The geometry was elementary, but in dangerous coastal waters it could establish a ship's position with remarkable usefulness.

The Firth of Forth was surrounded by such marks. A vessel approaching from the North Sea could identify the Lomond Hills and Largo Law, whose summits were conspicuous from offshore, together with North Berwick Law, Traprain Law, the Bass Rock and the Isle of May. These familiar features of the modern Scottish landscape belonged to a working maritime geography. Their shapes and their positions relative to one another allowed a navigator to determine which part of the coast he was seeing long before he could identify individual settlements.

The danger off Fife Ness demonstrates why this mattered. The North Carr is a reef extending into the North Sea north-east of the headland, with rocks capable of disappearing beneath the water. The 1854 directions describe it as a particularly dangerous ledge and give several independent methods of avoiding it. Kilminning Craig could be used as one mark. Traprain Law and the Bass Rock supplied another relationship. To clear the reef on another side, a navigator could use the steeples of St Andrews; Crail steeple offered another mark. Medieval and early-modern architecture had consequently become part of the apparatus by which nineteenth-century merchant ships avoided a submerged reef.

The system did not require the objects themselves to have any connection with navigation. It required them to be fixed, recognisable and visible. This produced some remarkable combinations of Scottish landscape and industry.

The coal chimney that marked a hidden rock

Off Dysart, on the Fife coast, lay submerged hazards known as the West Rock Head and East Rock Head. The sailing directions locate the West Rock Head buoy by placing the chimney stack of a Dysart coal pit in line with the middle of the gable of Pan Ha' House. A second bearing employed part of a Kirkcaldy church and the end of Kirkcaldy pier. Around the East Rock, the navigator could use the ruins of castles at West and East Wemyss, Dysart Church, the town-house steeple and the old mill at Dysart.

It is an extraordinary surviving picture of industrial Scotland viewed from offshore. Fife's coal workings were transforming the land for reasons entirely unrelated to navigation. Colliery structures were erected to extract and process what lay beneath the ground, but the height of a chimney made it conspicuous at sea. Once mariners discovered that it occupied a useful position relative to another permanent object, the chimney acquired a second function. An industrial structure serving a subterranean industry became an

instrument for navigating the surface of the North Sea.

This was not an eccentric local practice. Sailing directions around Britain routinely incorporated windmills, kilns, towers, country houses, churches, industrial buildings and other conspicuous structures. Their architectural importance was immaterial. A modest building standing in exactly the right place could be more valuable to a navigator than a celebrated monument that could not be reliably distinguished from offshore.

The Forth offers perhaps the most striking Scottish example because one of the buildings recruited into this system was Edinburgh Castle. Ships approaching Leith Roads had to negotiate reefs and shoals around Inchkeith and the southern side of the firth. The 1854 instructions describe a sequence of marks involving North Berwick Law, a summer house near Gullane, Inchgarvie, Hound Point, Largo Law, Inchkeith and Cramond. When turning near the Herwit, the navigator could continue until the westernmost glass-house at Leith came nearly into line with Edinburgh Castle.

The castle had accumulated centuries of military and political meaning, but none of that mattered to the sailor watching it from the Forth. Its usefulness came from its position on Castle Rock and its unmistakable place on the skyline. For a vessel entering the waters of the Scottish capital, one of the country's most important fortresses could become simply one point in a geometric calculation.

When rebuilding a church changed the maritime map

The dependence upon ordinary buildings created an obvious difficulty. Unlike mountains and headlands, buildings could change. A steeple might be rebuilt, a chimney demolished or a new industrial structure erected in front of an older mark. Sailing directions therefore had to record alterations ashore because changes to the skyline could affect people navigating several miles away at sea.

The 1854 directions contain an unusually clear example from Cruden on the Aberdeenshire coast. St James's Church had recently been rebuilt with a tower and spire approaching 100 feet in height. The book explicitly identifies it as a new landmark. The previous church had long served mariners as a mark, so rebuilding it changed a piece of navigational information that sailors had previously learned and trusted.

A parish church therefore possessed two simultaneous geographies. On land it belonged to its congregation and community. At sea it occupied a bearing. The architect who altered its silhouette was, unintentionally, altering the maritime landscape as well.

The approach to Aberdeen demonstrates how densely populated that landscape could become. Ships entering the harbour had to negotiate the bar at the mouth of the Dee, and the instructions used Old Aberdeen's church steeples to help establish the vessel's position. Mariners watched for the point at which the steeples appeared to close behind the end of a broad hill as the vessel crossed the bar. For anchoring in Aberdeen Roads, two of the city's steeples could again be brought into line.

Aberdeen's industrial buildings were incorporated too. One approach instructed the navigator to open the northernmost whale-fisher's boiling house beyond the north pier head and maintain the mark until another part of the harbour became visible. The building existed because Aberdeen participated in the whaling industry. Yet from the deck of an approaching ship, its purpose was temporarily transformed. The place where whale products were processed became part of the mechanism by which another vessel entered the harbour.

Such instructions required navigators to possess an intimate visual knowledge of places they might never visit on foot. A captain could know a church as a shape without knowing its congregation, a castle without knowing its history, or a factory without knowing what happened inside it. Scotland was being learned from the sea as a sequence of silhouettes.

The danger of seeing the wrong Scotland

That system carried a serious weakness: natural landmarks could resemble one another. The sailing directions repeatedly warn mariners against mistaken identity. Between Aberdeen and Buchan Ness, Stirling Hill was sufficiently similar in appearance to Buchan Ness that sailors were known to mistake one for the other. Farther north, Noss Head and Duncansby Head could also appear confusingly alike from the sea. Additional landmarks therefore had to be supplied to establish which headland a vessel was actually approaching.

For a navigator who had been at sea for days, such an error was more than an inconvenience. If a headland had been incorrectly identified, every subsequent course, expected depth and calculation of distance could be based upon a false position. The problem was particularly acute in poor weather, when only fragments of the landscape might appear through haze or rain.

The lead offered one defence against such mistakes. Mariners repeatedly measured the depth beneath the vessel and compared it with the expected soundings. The sailing directions are filled with warnings not to enter water shallower than a stated number of fathoms. Depth therefore operated alongside the visual landscape. If what the eye appeared to show and what the lead reported were inconsistent, the navigator had reason to doubt his position.

Coastal navigation was consequently an act of continuous comparison. The compass supplied direction, the lead supplied depth, the chart supplied the known geography, the tide altered the vessel's actual movement, and the landscape provided visual confirmation. None was sufficient by itself.

Then Scotland began to build a second coastline

During the late eighteenth and nineteenth centuries, this inherited landscape of natural and accidental marks was increasingly supplemented by structures designed specifically to communicate with ships. The creation and expansion of the Northern Lighthouse Board produced one of the great engineering projects in Scottish history. Robert Stevenson and the generations of Stevenson engineers who followed him constructed lights in places where geography had made navigation particularly dangerous.

By 1854, the sailing directions describe a Scottish coast punctuated by fixed, revolving and coloured lights. Bell Rock had been operating since 1811. Buchan Ness followed in 1827, Cape Wrath in 1828, Girdle Ness at Aberdeen in 1833 and Noss Head in 1849. Harbour authorities added smaller lights to piers and entrances. At night, Scotland was acquiring a new geography made not from the silhouette of the land but from patterns of light.

A lighthouse could provide something a hill never could: an artificial identity. Mariners could be told that a particular light revolved, that another remained fixed, that one appeared red over a certain sector or that flashes recurred at a known interval. The navigator no longer had simply to recognise a shape. He could identify a place by its behaviour in darkness.

Some harbour lights carried information more sophisticated than simple identification. At Aberdeen, lights could indicate dangerous conditions associated with the Dee or the harbour bar. At Arbroath, a small harbour light could be shown when vessels were waiting in the bay and the tide had reached a suitable state for entering. At Leith, coloured lights communicated information associated with water depth and access to the docks. Long before radio communication between harbour and bridge, the shore was already transmitting changing operational information to vessels offshore.

The rock that forced Scotland to engineer the sea

The Bell Rock remains the most powerful example of this transformation. Lying offshore from Angus on the approaches to the Firths of Tay and Forth, the reef is largely submerged at high water and had been feared by mariners for centuries. The 1854 sailing directions describe it as formerly having been considered the most dangerous and fatal rock off the eastern coast of Scotland.

Robert Stevenson's lighthouse transformed the hazard without removing it. Construction began in 1807, and the light was first exhibited in February 1811. The tower had to be built directly upon a reef that disappeared beneath the North Sea at high tide. Its lower masonry was constructed as an interlocking mass capable of resisting the repeated force of the sea. More than two centuries later, Bell Rock remains operational and is recognised by the Northern Lighthouse Board as the world's oldest working sea-washed lighthouse.

The engineering achievement is well known, but its effect upon navigation is equally important. Before the lighthouse, the reef had to be understood through charts, soundings, seamarks, experience and the behaviour of the sea. After 1811 it possessed an artificial identity visible at night. The rock had not moved and the water had not become less dangerous. Scotland had simply made the danger communicate its position.

The famous tradition that an Abbot of Arbroath once placed a bell on the reef belongs to the same problem. According to the story, movement of the sea caused the bell to ring and warn passing ships. Stevenson himself investigated the tradition and could find no documentary confirmation in the surviving records of Arbroath Abbey. The story should therefore be treated as tradition rather than established fact. Its persistence nevertheless reflects the problem generations of sailors faced: a lethal object that disappeared beneath the water required some means of announcing itself.

The North Carr acquired another solution. By the middle of the nineteenth century a beacon stood upon the reef. The 1854 directions describe a circular masonry base supporting six cast-iron pillars and terminating in a large ball. Its appearance from a distance was sufficiently unusual that the sailing directions warned that, at certain states of the tide, it could resemble a vessel under sail. Even a structure deliberately constructed as a navigational aid still had to be interpreted correctly by the human eye.

The landscape was never permanent

The old system was constantly becoming obsolete. Chimneys disappeared as industries closed. Churches were enlarged or rebuilt. Castle towers collapsed. Trees grew around once-conspicuous houses. New buildings interrupted old alignments. Harbour extensions changed skylines. A mark printed in one generation's sailing directions could become useless to the next.

This explains why works such as Norie's sailing directions were repeatedly revised. The sea itself was dynamic — channels shifted, bars altered and surveys improved — but the supposedly fixed land was changing too. Hobbs's 1854 edition belongs to this continuing process of correction. It records a Scotland at one particular moment, when old castles and church steeples still coexisted as navigational marks with the products of industrialisation and the new infrastructure of scientific navigation.

The mixture can be seen throughout the book. A navigator might identify a hill formed millions of years ago, steer until a medieval church appeared beside it, use a nineteenth-century coal chimney to clear a rock, check his depth with a lead, pass an iron buoy and then identify his destination from the characteristic flash of a lighthouse. Natural geography, centuries of settlement and the newest engineering technology were all being used simultaneously.

That coexistence is important because the nineteenth century did not suddenly replace traditional seamanship with modern technology. The change was cumulative. Lighthouses did not make hills irrelevant. Buoys did not eliminate the need for soundings. Improved charts did not prevent navigators from using steeples. New systems were laid over older ones, gradually reducing dependence upon the accidental geography of the coast.

During the twentieth century the process accelerated. Radio direction finding, increasingly accurate hydrographic surveys, radar and electronic positioning systems progressively moved navigation away from dependence upon what could be seen ashore. Satellite navigation eventually allowed a vessel to establish its position without recognising a single feature of the country beside it. Electronic charts can now display a ship's position continuously, while radar can reveal coastlines and structures through darkness and restricted visibility.

Visual navigation has not vanished. Leading lights, headlands, conspicuous buildings and transits remain useful, and professional navigation depends upon checking one source of positional information against another. What has disappeared is the extraordinary density of the relationship between everyday Scottish life and the mariner at sea.

A nineteenth-century captain approaching the Forth was not merely looking towards Scotland. He was measuring it. Edinburgh Castle, a Leith glass-house, North Berwick Law and the buildings around Cramond occupied positions in a practical geometry. Off Fife, coal workings and ruined castles became a warning against underwater rocks. At Aberdeen, church steeples and a whaling works guided vessels towards the Dee. Farther north, the shape of one headland had to be distinguished carefully from another before a course could safely be trusted.

The old sailing directions therefore preserve a historical geography that conventional maps struggle to show. They record which parts of Scotland mattered when the country was viewed horizontally from a moving deck several miles offshore. A famous castle and an obscure chimney could possess equal importance. A church was valuable because of where its steeple appeared against a hill. A house entered the maritime record because its gable happened to stand in precisely the right place.

Many of those relationships have now disappeared. Some of the buildings are gone; others survive but have lost the maritime function they once possessed.

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HERITAGE AND ARTS | 3 September 2026

Scotland's Lost Kingdoms Left Their Art in Church Walls, Graveyards and Broken Stone

Read online: <https://modern.scot/scotlands-lost-kingdoms-left-their-art-in-church-walls-graveyards-and-broken-stone/>



Before there was a kingdom recognisably called Scotland, the country south of the Forth and Clyde was divided between competing peoples, churches and rulers. They left comparatively little writing, but they left extraordinary art. Around 200 pieces of early medieval sculpture survive across southern Scotland, many scarcely studied for more than a century. A new research project is returning to them — and to a period when stone could proclaim faith, ancestry, political

allegiance and power.

Some time in the early eighth century, craftsmen working at or for the religious community at Jedburgh carved a remarkable object from pale sandstone. What remains is incomplete, but enough survives to see the quality of the work. Vines curl across the stone. Among them are birds and small animals, including mice, feeding on grapes. Beside this inhabited foliage runs a narrow field of interlace, tightly controlled and deliberately ornamental. The surviving panel measures less than a metre across, but it belongs to one of the most sophisticated artistic traditions operating in Britain at the time.

The object is usually known as the Jedburgh Shrine. It probably formed part of an enclosed shrine or stone sarcophagus, perhaps one intended to contain the body or relics of an important religious figure. Historic Environment Scotland has suggested a possible association with St Boisil, the seventh-century prior of Melrose, although that identification cannot be established with certainty. What can be established is the artistic world to which the carving belonged. The inhabited vine-scroll, with creatures feeding among the foliage, has close parallels in Northumbrian Christian sculpture, and the Jedburgh panel has been compared particularly with the Easby Cross in North Yorkshire. :contentReference[oaicite:1]{index=1}

Centuries later, the meaning of the stone had been lost sufficiently for it to acquire a much more prosaic purpose. The carved panel was incorporated into the later medieval abbey at Jedburgh and used as a lintel above the south aisle of the choir. In the nineteenth century it was moved again. Today it is preserved in the abbey visitor centre. The survival of one of southern Scotland's finest pieces of early medieval sculpture consequently owes something to an accident familiar throughout the history of ancient stonework: when people ceased to understand an object, they sometimes found another use for it.

That history of creation, displacement, reuse and rediscovery runs through the surviving sculpture of early medieval southern Scotland. It is also one reason the collection has never been particularly easy to understand as a whole. The stones are scattered between churches, churchyards, museums, historic monuments and stores. Some survive only as fragments. Some have been moved repeatedly. Others have lost the archaeological surroundings that might once have explained who erected them and why.

Now they are to be studied together. A new research programme, *Sculpting Southern Scotland, AD 500–1100*, is beginning fieldwork in autumn 2026. Coordinated by archaeologist Dr Christina Cowart-Smith, it is

intended eventually to document around 200 pieces of sculpture south of the Forth-Clyde line. The Society of Antiquaries of Scotland, which is funding the initial work, says that most have not received substantial study for more than a century. Researchers intend to assemble new images and data and compare carving, motifs and relationships between sites which have often been considered separately.

:contentReference[oaicite:2]{index=2}

The undertaking is unusually important because these stones come from a Scotland that did not yet exist in its later form.

Before Scotland

Between AD 500 and 1100, the territory now called southern Scotland repeatedly changed political hands. Brittonic-speaking kingdoms survived in the west. Northumbrian power extended northwards from England. Gaelic political influence expanded from the north and west. Scandinavian raiders became settlers and political actors around the Irish Sea and western seaways. Religious communities maintained connections that crossed political frontiers, while rulers used Christianity, patronage and monumental display to reinforce authority.

Our knowledge of those centuries is uneven. Written evidence exists, but compared with later medieval Scotland it is sparse and frequently comes from authors writing elsewhere, sometimes considerably later than the events they describe. Stone sculpture therefore carries a historical burden far greater than its decorative appearance might suggest. The choice of ornament, the form of a monument, the geology of the stone, the skill of its carving and its similarities to objects elsewhere can provide evidence for connections that no surviving document records.

The new project describes southern Scotland as a crossroads of cultures. That is visible at Jedburgh. The shrine panel was produced in what is now unquestionably Scotland, yet its artistic language belongs within a Northumbrian Christian world extending across what is now the Anglo-Scottish border. The modern border can therefore interfere with our understanding of the object. Its makers did not inhabit a cultural landscape divided in the same place or in the same manner as Britain today. :contentReference[oaicite:3]{index=3}

The same problem becomes unavoidable at Ruthwell in Dumfries and Galloway, where one of the greatest surviving works of early medieval art in Britain still stands.

The monument at Ruthwell

The Ruthwell Cross rises more than five metres and was created in the early eighth century, when the area around the Solway formed part of the Northumbrian political and cultural world. Its scale alone would have made it extraordinary. Its imagery makes it exceptional.

Figures from the New Testament occupy panels on its broader faces. Christ, the Virgin, St Paul, St Anthony and other sacred figures inhabit a carefully constructed visual programme. Latin inscriptions accompany the imagery. Along the narrower faces, vines coil upwards through birds and animals. Around this ornament are runes carrying passages associated with the Old English poem now known as *The Dream of the Rood*, in which the Cross itself becomes a witness to the Crucifixion. Historic Environment Scotland regards Ruthwell as one of the largest surviving pieces of Anglo-Saxon sculpture and one of the outstanding monuments of the early medieval church in western Europe. :contentReference[oaicite:4]{index=4}

It is tempting to view such a monument today as sculpture in the modern sense: an autonomous artwork to be examined for its craftsmanship and imagery. Its original setting would have made that separation much

less obvious. Ruthwell probably stood outside rather than inside a building and may have functioned as a preaching cross. Its imagery could be encountered by people who could not read, while its Latin and runic inscriptions operated at other levels for audiences capable of understanding them. Monument, text, image, landscape and religious practice belonged together. :contentReference[oaicite:5]{index=5}

Its later treatment shows how radically attitudes towards early medieval religious art could change. In the seventeenth century, an act directed against what were regarded as idolatrous monuments led to the cross being broken. The local minister appears to have carried out the destruction reluctantly. Parts were reused as church seating or buried in the graveyard. Two large pieces were eventually moved outside in 1771, and the minister and antiquarian Henry Duncan began reassembling the monument in the early nineteenth century. The reconstruction was subsequently altered, and a replacement head was carved by a local mason. In 1887 the cross was brought inside the church, where it remains. :contentReference[oaicite:6]{index=6}

The Ruthwell Cross we encounter now is consequently both an eighth-century masterpiece and an object bearing the consequences of later Scottish religious and antiquarian history. It was created, condemned, dismantled, partly reused, recovered, reconstructed and finally protected. Its survival was never inevitable.

Art and political power

Move west to Govan and the artistic language changes again.

Modern Govan is so closely associated with the industrial Clyde that its earlier importance can be difficult to see. Long before the shipyards, however, this stretch of the river stood close to the political centre of the Kingdom of Strathclyde. Following the Viking attack on Dumbarton Rock in 870, Govan became associated with a powerful Brittonic kingdom whose rulers controlled territory extending far beyond the modern city.

The surviving sculpture is one of the clearest signs of that power. Govan Old holds an extraordinary collection of early medieval monuments dating principally from the ninth to eleventh centuries: carved crosses and cross-shafts, recumbent grave monuments, the celebrated Govan Sarcophagus and five enormous hogback stones. The collection is among the most important bodies of early medieval sculpture surviving in Scotland. :contentReference[oaicite:7]{index=7}

The hogbacks are particularly strange objects. Their curved profiles resemble the roofs of buildings, and their surfaces can carry architectural and animal ornament. Examples are concentrated principally in northern Britain and are strongly associated with areas affected by Scandinavian settlement and cultural influence. Govan possesses five, the largest surviving group in Scotland. Their presence beside monuments belonging to a Brittonic Christian centre demonstrates the difficulty of dividing early medieval culture into neat ethnic categories. Artistic forms travelled. Communities borrowed. Political alliances shifted. People who encountered one another through warfare also traded, married and exchanged visual ideas. :contentReference[oaicite:8]{index=8}

The Govan Sarcophagus belongs to another expression of authority. Cut from a single block of stone, it carries interlace and figurative imagery, including a mounted warrior. Its exceptional scale and craftsmanship have encouraged its interpretation as a monument connected with the ruling elite. Taken together, the Govan stones indicate a high-status burial ground and an ecclesiastical centre closely connected with power. These were not simply grave markers placed by anonymous communities. Monumental sculpture helped establish who deserved to be remembered and how that memory should appear in public.

By around the eleventh century, the political world that had supported this artistic tradition was disappearing. Strathclyde was absorbed into the developing Scottish kingdom, while Glasgow emerged as a

major ecclesiastical centre. Govan's political centrality faded. The stones remained.

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Stone could speak where documents were silent

This is why the proposed survey of southern Scotland's sculpture has significance beyond cataloguing. If two fragments at distant sites employ closely related ornament, researchers can ask whether the same workshop, craftsmen or ecclesiastical network was involved. Geological examination can help establish whether stone was quarried locally or transported. Changes in carving technique can reveal different periods of activity at a site. The distribution of particular monument types can suggest where ideas travelled and where wealthy patrons were able to commission specialist work.

The imagery itself can reveal intellectual connections. The animals feeding among vines on the Jedburgh shrine were not casual decoration. In Christian art, inhabited vine-scrolls carried associations with creation, salvation and the Eucharist. Closely related ornament occurs at Ruthwell, where creatures move through the curling vegetation on the sides of the cross. Such similarities place southern Scottish monuments within a visual vocabulary extending across early medieval Northumbria and beyond.

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That vocabulary was international. Early medieval Britain was not artistically isolated. Christian imagery and ornamental traditions circulated through manuscripts, metalwork, ivory, stone and textiles, transmitted along religious and political networks connecting Britain and Ireland with continental Europe and the Mediterranean Christian world. A sculptor in southern Scotland did not need to have travelled to Rome to participate in that culture. Designs could move through books, portable objects, travelling clergy and other craftsmen.

The stone monuments therefore preserve evidence of people looking outward as well as inward. Their art was capable of announcing local identity while simultaneously demonstrating membership of a much larger Christian culture.

What later Scotland did to the stones

The survival of this material also exposes a less comfortable history. Once the political and religious systems that created the monuments disappeared, many stones lost their original meanings. A beautifully carved fragment could become useful masonry. A cross could be broken during religious reform. A grave marker could be moved because it obstructed a later building. Antiquarians might rescue an object while simultaneously removing it from the place that explained it.

Jedburgh's shrine fragment becoming a lintel is a particularly vivid example. The people who incorporated it into the later abbey preserved an early medieval artwork, but they also transformed it into architecture.

Whether they recognised its age or significance at that stage is uncertain. What survives today is consequently both an artwork and evidence of changing attitudes towards the past.

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At Ruthwell, destruction was ideological rather than merely practical. The seventeenth-century attack on the cross arose from a religious culture that interpreted monumental imagery very differently from the Christian society that had erected it approximately nine centuries earlier. Henry Duncan's nineteenth-century reconstruction belonged to another intellectual world again, one increasingly interested in recovering early national and ecclesiastical antiquities. Each generation altered the physical object according to its own understanding of what the stone represented. :contentReference[oaicite:12]{index=12}

Other stones were simply overlooked. When nineteenth- and early twentieth-century antiquarians travelled through Scotland recording carved monuments, they often encountered fragments incorporated into church fabric, lying in graveyards or held locally. Their drawings, rubbings, photographs and written descriptions sometimes provide evidence for objects that have subsequently deteriorated, moved or disappeared.

The new research project is therefore partly a race against another period of change. Many early carved stones remain in or beside churches. Scotland is currently experiencing widespread church closure and disposal, and the Society of Antiquaries has identified uncertainty over what will happen to historic objects associated with buildings that are sold or change use. For sculpture that has survived centuries because it happened to remain in a church or churchyard, the future of the building can become the future of the object.

The problem with calling all of this Scottish art

There is a useful historical paradox in assembling these objects as the art of early Scotland. Much of it was created before Scotland possessed the political boundaries or national identity through which it is now viewed.

The Ruthwell Cross was made in Northumbrian territory. Govan's monuments belonged to the Kingdom of Strathclyde and a Brittonic political tradition. The Jedburgh sculptures emerged from a religious and artistic environment with strong Northumbrian connections. Scandinavian influence later entered the visual culture of western and southern Britain. Other sites preserve different mixtures again.

To call all of this simply Scottish can conceal the history that makes the material important. These works belong to the history of the land that became Scotland, but their makers inhabited kingdoms whose frontiers crossed the modern border and whose languages, loyalties and political identities do not fit comfortably inside later national categories.

The sculpture records that complexity more faithfully than a modern map does. A vine-scroll does not stop at the border. Neither does a carving technique. A monument type appearing in Govan and northern England can record connections that political histories written centuries later tend to separate.

What eventually became Scotland was formed partly through the destruction, absorption and transformation of these earlier political worlds. Their written archives are slight. Their sculpture survived them.

The artists whose names disappeared

Almost none of the people responsible for this work can be named. Yet the stones themselves show that highly trained specialists existed. The planning necessary to cover a monumental cross with coherent figurative scenes, inscriptions and ornament was considerable. The sculptor had to understand the material, prepare the design, transfer complex patterns to stone and execute them without the possibility of simply replacing an expensive block after a serious mistake.

Differences between hands may eventually allow researchers to identify groups of work produced by particular workshops or even individual carvers. That does not restore their names, but it begins to restore artistic agency. Early medieval sculpture can otherwise acquire the misleading appearance of having been produced by cultures rather than people.

Someone designed the mice among the vines at Jedburgh. Someone decided how deeply their bodies should emerge from the sandstone and how the vegetation should curl around them. Someone at Ruthwell organised biblical figures, Latin text, runic poetry and inhabited vine-scroll over a monument towering above its

audience. Someone at Govan cut a block of stone into a form intended to perpetuate the memory and status of a dead person.

Those decisions are the history of art as surely as the work of painters whose signatures survive from later centuries.

A different beginning for Scottish art

Scottish art is often encountered through periods in which artists and patrons can be named: medieval church architecture, Renaissance court culture, eighteenth-century portraiture, nineteenth-century landscape painting or the Glasgow movements of the modern era. The early medieval stones belong to a much less comfortable history because almost everything that usually accompanies an artwork has disappeared.

We often do not know who commissioned them. We do not know who carved them. In many cases their original location has been lost. Their colour, if they were painted, has disappeared. Their surrounding buildings may have vanished completely. Some survive as fragments too small to reconstruct confidently.

Yet the surviving pieces show that the visual culture of early medieval southern Scotland was neither crude nor provincial. Ruthwell demonstrates intellectual and artistic ambition on a European scale. Jedburgh preserves the work of carvers operating within a sophisticated Northumbrian tradition. Govan reveals a later centre in which Brittonic political power, Christianity and Scandinavian influence produced one of Britain's most distinctive groups of funerary monuments.

The approximately 200 sculptures now being brought together by researchers will not produce a single story of early Scottish art. They are more valuable precisely because they cannot. They belong to different kingdoms, different centuries and changing religious and political environments. Some were monuments to rulers. Others belonged to churches. Some survive almost complete.

TEA WITH GUNNS | 3 September 2026

When Does a Visitor Become Taxable?

Read online: <https://modern.scot/when-does-a-visitor-become-taxable/>



I have been reading about the proposed Highland Visitor Levy, and I have questions. This will surprise nobody who knows me. I have questions about most things. I once kept a washing-machine engineer in the kitchen for forty minutes because he said the noise was “within normal parameters” and I wanted to know whose normal parameters we were discussing.

The Highland Council is consulting on a visitor levy which, if eventually approved, could mean a charge of £5 per room per night for hotels, B&Bs and similar

accommodation, and £2 for hostels, campsites and caravan parks. This sounds straightforward. Nothing straightforward has ever required a twelve-week consultation.

I explained the proposal to Mr Gunn over breakfast.

“They're thinking of charging visitors five pounds a night,” I said.

Mr Gunn continued buttering his toast. “To stay here?”

“In the Highlands.”

He stopped buttering. “Not in this house?”

“No.”

He resumed. This is one of the differences between us. I hear about a new system of taxation and immediately considers its social, economic and moral consequences. He establishes whether it affects the family and then continues eating.

The difficulty, as I see it, is not the five pounds. The difficulty is establishing who is a visitor. This is considerably more complicated in the Highlands than officials may realise.

We have tourists. Tourists are easy.

A tourist is a person wearing a waterproof jacket that cost more than your first car while standing in horizontal rain saying, “Apparently it clears up quite quickly.”

A tourist has a map.

A tourist stops the car in the middle of the road because there is a deer. A local stops because there are twelve deer.

A tourist photographs a Highland cow. A local wonders whose cow it is and why it is out.

The tourists can be identified.

But what about friends who are like relatives? My friend could arrive from Perth on Friday and stay until Monday. Is she a visitor? Technically, yes. Emotionally, no. Financially, possibly. She will sleep in the spare room, use hot water, consume electricity, eat biscuits and almost certainly leave a towel somewhere it cannot possibly dry.

If she stays three nights, is that £15? And if so, who collects it? Me? Because I am not comfortable presenting a card machine after pudding.

“Would you like coffee?”

“Yes, please.”

“That'll be fifteen pounds.”

Families have stopped speaking for less.

And what happens if she brings something? This is important. A visitor who arrives empty-handed is one thing. A visitor carrying a Victoria sponge is economically different. Surely there must be an offset. Three nights at £5 is £15. One good Victoria sponge is easily worth eight. If she also brings eggs, we are approaching neutrality. By the time a woman arrives with a cake, six eggs and a jar of homemade raspberry jam, I would argue I owe her money.

I mentioned this to Mr Gunn. He said the levy would apply to paid accommodation. This was irritating because he was correct and spoiled several minutes of excellent reasoning.

The proposal is actually per room rather than per person, which creates another interesting social situation. Suppose two people share a room. Five pounds. Suppose four people somehow share the room. Still five pounds. Immediately I can see Scots reorganising sleeping arrangements. We are not mean. We are efficient. There is a difference, recognised mainly in Scotland.

My grandmother could have fitted eleven relatives into a two-bedroom house if somebody had told her there was a charge per room. People would have been sleeping vertically.

Someone would be in the bath.

“Don't turn the tap on. Your Uncle Alec's in there.”

Children would be placed in drawers. Aunties would be stacked according to snoring risk. By midnight the entire extended family would occupy one taxable room while three perfectly good bedrooms stood empty on principle.

This is not tax avoidance.

This is heritage.

The £2 charge for campsites also interests me. I have always admired camping because it involves paying money to live temporarily without the things you already own. You leave a house containing a bed, heating, electricity, a refrigerator and a lavatory in order to sleep on the ground beside a nylon wall while cooking beans outdoors.

Then you describe this as getting away from it all.

You certainly have.

Most of it is back at the house.

Now you may eventually pay another £2 for the privilege.

I imagine arriving at a Highland campsite after six hours in the rain.

“Good evening. Do you have a reservation?”

“Yes.”

“Tent?”

“Yes.”

“Electric hook-up?”

“No.”

“Running water?”

“No.”

“Bed?” “No.”

“Toilet in the tent?”

“Good God, no.”

“Excellent. That’ll be another two pounds.”

At least the proposed scheme recognises winter. The levy is intended to operate for nine months, excluding December, January and February. This is sensible. Anyone voluntarily holidaying in the Highlands in January has already paid. Not necessarily financially. But somewhere.

A January visitor has stood on a headland in waterproof trousers while sleet enters through the only opening in the jacket. They have watched daylight begin at approximately lunchtime and finish during the soup course. They have walked three miles to admire a view consisting entirely of cloud. Then they have returned to their accommodation, removed seven wet garments and discovered the weather forecast says “turning unsettled.” Charging another five pounds would seem vindictive.

Perhaps there should actually be a winter rebate. Stay in August: £5. Stay in October: £3. Stay in November: £1 and our apologies. Stay in January: somebody from the council meets you at the border with a flask.

The accommodation providers would apparently retain 5% of the levy to help with administration. Five per cent. I have run a household. Whenever someone says a small percentage will compensate you for administration, hide. Administration is not a percentage. Administration is a lifestyle.

There will be records. There are always records. Somewhere there will be a portal. There is always a portal.

Nobody ever says, “We have developed a simple system. Margaret has a biscuit tin.”

No. There will be an online account. There will be a password. The password will require eight characters, one number, one capital letter, one symbol and an emotional commitment you are not prepared to make.

Then there will be two-factor authentication. The authentication code will arrive on the telephone belonging

to the person who set the account up eighteen months ago and has since moved to New Zealand.

Eventually a woman running a three-room B&B near Ullapool will be standing in her kitchen at eleven o'clock at night trying to remit £35 while a website tells her: SESSION EXPIRED.

She will say something not included in the Sustainable Tourism Strategy.

Meanwhile, upstairs, a German couple will be sleeping peacefully, having successfully visited Scotland without completing any administration whatsoever.

I am also interested in what the money may eventually be used for. I would like one small portion set aside for signs explaining passing places.

Not decorative signs. Not interpretive signs. Not signs with a QR code leading to an interactive visitor experience.

A large sign. Possibly illuminated.

THIS IS A PASSING PLACE. USE IT. YES, YOU.

If £9 million cannot achieve this, civilisation has failed.

I would also allocate funds to public lavatories. Visitors need lavatories. Women of a certain age regard the location of lavatories as essential geographical information. Women over fifty navigate Britain according to toilets.

“Inverness?”

“Forty minutes.”

“Public toilets?”

“Twenty-three.”

That is the useful map.

I would improve bins as well. Not because tourists are uniquely untidy. Most tourists are perfectly decent people who would happily put rubbish in a bin if Scotland occasionally provided one before the rubbish had celebrated a birthday.

And parking. We should spend some on parking. There are Highland beauty spots where forty people arrive simultaneously to experience solitude. They park along both sides of a narrow road, climb out carrying walking poles. Nothing destroys the romance of the Highlands quite like being trapped behind a rented motorhome while a man in expensive outdoor clothing photographs a sheep.

Still, I do have sympathy with visitors. They come here because it is beautiful. We tell them to come. There are websites telling them to come. There are advertisements telling them to come. There are photographs of empty beaches telling them to come. Then they arrive at the empty beach and discover 146 other people who saw the same photograph.

We cannot invite people into the house and then spend the entire evening looking surprised that they are sitting on the furniture. Tourism matters here. So perhaps asking overnight visitors to contribute a little towards the places they use is perfectly reasonable.

I am merely concerned about where it ends. Because once government discovers a category called “visitor,” somebody eventually develops subcategories: day visitor, overnight visitor, business visitor, leisure visitor, returning visitor, seasonal visitor, visitor with motorhome, visitor without motorhome, visitor who claims not to be a visitor because his grandmother came from Golspie.

This last category could be substantial.

There is a particular kind of visitor who arrives from Canada, America, Australia or New Zealand and announces within six minutes that he is actually Scottish. Not of Scottish ancestry. Scottish. His great-great-great-grandfather left in 1847. His name is Brad. He owns a tartan waistcoat. He has come home.

You cannot charge Brad a visitor levy. Brad has waited 179 years to return to the ancestral homeland. Brad will appeal. He has documentation. By teatime Brad will have established that he is descended from Robert the Bruce, Flora MacDonald and possibly a minor geological feature near Fort William. He will then ask where the clan castle is. Someone will point towards a hotel. He will stay there. Five pounds. Welcome home, Brad.

There is another category officials must consider: the person who owns a holiday home and insists they are local. This requires delicate handling.

“How long have you lived here?”

“Twenty-seven years.”

“Oh.”

“We come every Easter.”

That is not the same measurement.

I propose a Highland Visitor Test.

Question one: You meet another vehicle on a single-track road. The passing place is six feet behind you. What do you do? If you answer “reverse,” proceed to question two. If you answer “wait for the other person to reverse 400 yards around three blind bends,” you are a visitor.

Question two: The forecast says “light rain.” What do you wear? If you answer “a light jacket,” visitor. If you answer “everything,” local.

Question three: Someone says, “It’ll maybe brighten up.” Do you believe them? If yes, you’re a visitor.

Question four: You are offered tea. Do you say: A. “No, thank you.” B. “Do you have herbal?” C. “Just half a cup.” D. “Aye.” Only one of these people is local.

Question five: A sheep is standing in the road. Do you photograph it? Visitor. Do you swear at it by name? Local.

There. I have saved the council twelve weeks.

Modern Scot - Distinctly Scottish

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