

Net Zero, Energy and Transport Committee

7th Meeting, 2023 (Session 6)

Tuesday 28 February 2023

Inquiry into a modern and sustainable ferry service for Scotland

Introduction

1. At its [meeting on 15 March 2022](#), the Committee agreed to undertake an inquiry into ferry services. The Committee had been referred [Petition 1872: Improve the reliability of island ferry services](#). The petition said the unreliability of ferries has resulted in losses to island economies relying on tourism and in travel restrictions for island residents, who need reliable and regular services.
2. The Committee noted there were issues with island connections beyond those covered by the petition. It agreed it needed to look at ferry services comprehensively and to launch an inquiry into current and future ferry provision in Scotland. The inquiry aims to seek out how best to secure a state-funded ferry service that is future-proofed, compatible with Scotland's net zero goals and will meet the needs of all service users, having regard in particular to the long-term sustainability of island communities. (See **Annexe A** for full inquiry remit.)
3. The Committee will consider what island residents, businesses, and other ferry users need from Scottish Government-supported ferry services and the institutional and funding arrangements that would most likely meet the needs of current and potential future ferry users. The inquiry will also explore what vessel size, type, deployment and crewing arrangements would best satisfy the needs identified.

Evidence so far

4. On 28 June, the Committee opened the inquiry with an evidence session with a panel of island community members to discuss their experiences of ferry services in Scotland and their ideas for the inquiry. [Read the Official Report here](#). The Committee then issued a call for written views on 1 July, which closed on 26 August. [All published submissions to the call for views are available here](#).
5. On 1 November, the Committee heard from private ferry operators their approach to running ferry services, and on how national service provision should be structured and procured. [Read the Official Report here](#).

6. On 8 November, the Committee held an evidence session with representatives from the business and tourism sectors. [Read the Official Report here.](#)
7. On 15 November, the Committee took evidence from representatives of trade unions to discuss crewing arrangements for ferry services and union members' experiences of working on ferries. [Read the Official Report here.](#)
8. On 31 January, the Committee held two evidence sessions with a panel of former members of the Scottish Government's Ferry Industry Advisory Group/Expert Ferry Group, and then from a panel of representatives from the Ferries Community Board. [Read the Official Report here.](#)
9. On 7 February, the Committee heard from two panels of local councils involved with operating, or affected by, the delivery of ferry services in Scotland. [Read the Official Report here.](#)
10. On 21 February, the Committee held an evidence session with international ferry experts followed by hearing from ferry companies who operate government-subsidised services in Scotland.

Other information gathered so far

11. There have been three visits in connection with the inquiry, during which Members took ferry trips and met with a variety of local stakeholders, such as ferry users, community groups and local authority representatives—
 - 7 November - Arran;
 - 28-29 - November, there were parallel visits to Orkney and the Western Isles.
12. On 17 January, the Committee held an online engagement event with Members of the Scottish Youth Parliament to learn more about how ferry services could better meet the needs of Scotland's young people. The Committee also held an online meeting with representatives of island communities to hear about their priorities for future ferry services.

Ferry services in Scotland

13. Major Clyde and Hebrides ferry services and services linking the Scottish mainland and Northern Isles are specified, let, and funded by Transport Scotland. Multi-year contracts for the provision of these services are awarded following competitive tendering exercises. The current operators are—
 - CalMac Ferries Ltd: A subsidiary of David MacBrayne Ltd, itself wholly owned by Scottish Ministers, which provides ferry services to 22 islands and four peninsulas on Scotland's west coast. The current contract runs between October 2016 and October 2024.
 - SERCO Northlink: A private sector operator, part of the major outsourcing company SERCO. It operates ferries between the Scottish mainland, Orkney, and Shetland. The current contract runs between June 2020 and June 2028.

14. Scottish Government supported ferry services are operated using vessels owned by Caledonian Maritime Assets Ltd (CMAL). CMAL is owned by Scottish Ministers and owns 36 ferries; 31 leased to CalMac Ferries and five to SERCO NorthLink. It is also leading on the procurement of new vessels for these services. It also owns 16 Clyde and Hebrides harbours and owns or leases properties and port infrastructure at 10 other Clyde and Hebrides locations.

15. Orkney and Shetland Islands Councils operate all inter-island ferries in their area. Argyll and Bute and Highland Councils run a small number of short ferry services. There are two private sector operators running car ferries (Orkney- mainland and Gourock-Dunoon routes).

Scottish Government ferries policy

16. The Scottish Government's current strategy for ferry services in its [Ferries Plan 2013-2022](#), published in December 2012. This is due to be replaced by a new [Islands Connectivity Plan \(ICP\)](#) from the end of 2022. The Scottish Government says the ICP will be "wider in scope, taking account of ferry services, aviation and fixed links, as well as onward and connecting travel. The ICP will be supported by a number of delivery plans".

17. It will have several components—

- Long term plan for vessels and ports
- Community Needs Assessments
- Fares Policy
- Connecting and Onward Travel
- Low Carbon Plan

18. The Scottish Government published a [draft Long-Term plan for vessels and ports on the Clyde & Hebrides and Northern Isles networks \(2023 – 2045\)](#) in December 2022. This was circulated to "key stakeholders" and a final draft for consultation is expected in "early 2023".

Evidence session 28 February

19. At its meeting on 28 February, the Committee will conclude its evidence taking on its inquiry into 'A Modern and Sustainable Ferry Service for Scotland'. It will firstly hear from Caledonian Maritime Assets Limited (CMAL) to discuss its views with regards to specifications and procurement of vessels and harbour infrastructure.

20. The Committee will hear from—

- Kevin Hobbs, Chief Executive Officer, CMAL;
- Morag McNeill, Chair, CMAL;
- James Anderson, Director of Vessels, CMAL; and

- Ramsay Muirhead, Director of Port Infrastructure and Planning, CMAL.

21. In advance of this session, the Committee received a briefing document from CMAL on the decarbonisation of Scotland's ferries, which is available in **Annexe B**. A press release issued from CMAL responding to points raised in the Committee's evidence session of 31 January can be found in **Annexe C**.

22. The Committee will then round-off its scrutiny by holding an evidence session with the Scottish Government and Transport Scotland, which will offer Members an opportunity to pose any questions arising from the Committee's inquiry work.

23. The Committee will hear from—

- Jenny Gilruth, Minister for Transport, Scottish Government;
- Laurence Kenney, Head of Ferries Policy, Transport Scotland; and
- Chris Wilcock, Head of Ferries Unit, Transport Scotland.

Next steps

24. The Committee expects to issue a report with its main findings in Spring.

Clerks

Net Zero, Energy and Transport Committee

Annexe A

Remit - Inquiry into a Modern and Sustainable Ferry Service for Scotland

The Net Zero, Energy and Transport are holding a major inquiry into current and future ferry provision in Scotland, which will ask—

1. What do island residents, businesses, and other ferry users need in the short, medium and long term from Scottish Government-supported ferry services?
 - Meeting the needs and sustainability of island and remote rural communities and businesses, including secure jobs providing ferry services.
 - Meeting the needs of mainland communities and businesses, including visitors.
 - Service needs at different times of the year.
 - Which needs are better met by other modes, e.g. air travel where available?
 - How should the Scottish Government support council-run ferry services?
 - How can ferry users and island communities be involved in decision making at strategic and operational level?

2. What institutional and funding arrangements would most likely deliver service patterns, vessels, and crewing arrangements that meet the needs of current and potential future ferry users?
 - Can the current tri-partite arrangement (Transport Scotland, CMAL, Ferry Operator) for managing most ferry service provision be improved?
 - Can current tendering arrangements be improved, e.g. through service unbundling?
 - Can Scottish Government subsidies be better deployed to meet the needs of current and future ferry users?
 - Are current services providing best value for the taxpayer?

3. What vessel size, type, deployment and crewing arrangements would best satisfy the needs you have identified?
 - Vessel size and type
 - Sustainable propulsion systems (including energy-use and moves to low carbon systems)
 - Compatibility with harbour facilities
 - Onboard crew accommodation
 - Current procurement criteria and processes: what are their strengths and weaknesses? Are they “future proofed” to accommodate new technologies and the need for sustainable low-carbon travel?

During the inquiry, the Committee will also pursue the following objectives:

- To engage with communities impacted by problems with ferry services and understand better the impact these have, particularly on island life (in particular, the

effects of weather on services, sustainability of population and attracting inhabitants, access to key services and businesses)

- To understand what a modern ferry service should look like from different perspectives, from island and mainland residents, individuals and businesses,
- To consider and draw attention to best practice in ferry provision and service including considering examples from private enterprise or internationally;
- To hold the Scottish Government, operators and asset holders to account and scrutinise carefully whether their decisions and strategies are in the best interests of service users and the taxpayer;
- To help inform Scottish Government's policies and strategies on ferries and island connectivity as well as the procurement process for future vessels.
- To identify the needs and views of different groups in particular young people and disabled people;
- To adapt scrutiny to the different needs, experiences and solutions of different islands and communities;
- Recognise the importance of island impact assessments carried out by relevant authorities; and
- To incorporate the contribution of transport to net zero goals into scrutiny throughout the inquiry.

Conclusions and recommendations will be set out in a report to the Scottish Government and Transport Scotland, setting out the Committee's views on how best to secure a state-funded ferry service that is future-proofed, compatible with Scotland's net zero goals and will meet the needs of all service users, having regard in particular to the long-term sustainability of island communities.

Annexe B

CMAL: Decarbonising Scotland's ferries on the route to Net Zero - Briefing for Net Zero, Energy & Transport Committee

21 February 2023

The maritime sector is estimated to contribute circa 3% of emissions globally. It is therefore essential that the next generation of vessels and harbours are environmentally friendly and sustainable. CMAL is taking a leading role in driving down emissions from both vessel and port infrastructure assets.

CMAL is the asset owner of both ports and vessels that are a key element in providing lifeline ferry services in Scotland both on the Clyde and Hebrides routes and the Northern Isles routes. Within our portfolio we are the owners of 37 ferries and 26 port facilities which are all critical infrastructure assets supporting the island communities within Scotland.

It is one of CMAL's key priorities to consider innovative solutions to limit the carbon footprint and emissions that are associated with both our vessels and port infrastructure.

As global technological advances in ferry decarbonisation progress, we will adopt new technologies for both vessels and harbours that will further reduce, if not eliminate, harmful emissions. Our future vessels will be designed to support retrofitting as new technologies are introduced.

CMAL are also partners in a pioneering research study, HYSEAS III, on the viability of alternative, renewable maritime fuels. We will endeavour to share this with the Committee when it is published.

We are currently scoping the role of Environmental Manager, an important new role for CMAL, which will strengthen our processes to measure, record and report on our primary and secondary emissions. Our targets are aligned with the Scottish Government targets to achieve Net Zero by 2045 and will identify clear ways to and timescales to deliver these targets.

Vessels

Turning to focus particularly on vessels, one key aspect in reducing carbon footprint and emissions is to continue our work regarding the adoption of alternative fuels to power ferries. Our current investment plan in new vessels ensures greater fuel efficiency across the network as research to develop greener fuels continues.



Within our fleet, we have already taken innovative action by exploring alternatives to low sulphur marine diesel oil.

Our vessel engineers were responsible for introducing the world's first diesel-electric hybrid ferries, MV Hallaig (2012), MV Lochinvar (2014) and MV Catriona (2016). This technology enables these three vessels to operate on the batteries for 30% of each working day. The batteries are charged using shore power connections from the grid.

As part of the Small Vessel Replacement Programme, we are currently finalising the concept designs for an initial seven small ferries (Phase 1) followed by a further three small ferries (Phase 2) that will enable each vessel to work from battery power for 100 per cent of each day. Phase 1 concept designs will be completed in Q1 2023 and then the vessels will be tendered with an ambition to achieve contract signing in Q4 2023. The batteries are charged using shore power connections from the grid.

We have two dual fuel vessels under construction, the MV Glenn Sannox and Hull 802, that will be able to operate on liquefied natural gas (LNG), a cleaner fuel compared to diesel. It is anticipated that these vessels will reduce the carbon footprint of our ferry fleet by 25 per cent overall and almost eliminate emissions such as NOx, SOx and particulates.

We continue to seek new ways to power vessels by adopting further advances in battery technology and electrifying our fleet. We are progressively rolling out the ability of our major ferry fleet to connect to shore power when alongside overnight. This will, in turn, enable the diesel generators to be switched off, reducing carbon emissions and noise pollution.

Importantly, our vessels team are involved in ground-breaking projects to use carbon-free fuels. We are a partner in the [HYSEAS III project](#) to develop Europe's first sea-going vehicle and passenger ferry powered by hydrogen fuel cells. The HYSEAS III Consortium comprises of an experienced team of commercial and public sector organisations from France, Norway, Sweden and Germany working with partners in Scotland including CMAL, Orkney Ferries and the University of St Andrews. CMAL is part of a European Consortium and within that we have been responsible for vessel design and gaining 'Approval in Principle' from DNV which was awarded in Q4 2022.

We are also working with the University of Strathclyde to conduct a study into the operational and commercial viability of ammonia, hydrogen, and inland electricity as maritime fuels.

Whilst technology is advancing at pace there is currently no true solution to attaining Net Zero within the major ferries fleet. However, through innovative design, hull form, propulsion technologies and adoption of battery solutions our latest orders for two new major ferries within the fleet to serve the Uig Triangle will achieve a reduction in power of 40 per cent that directly correlates to an improved fuel efficiency with a 40 per cent reduction in carbon, NOx, SOx and particulates.

Ports and Harbours

CMAL also owns and maintains 26 harbours, with associated buildings and infrastructure. Our harbours engineers, surveyors and project managers are equally committed to designing and building greener, more sustainable infrastructure. We continually investigate improved solutions for implementation across our network. This will facilitate lifeline services for years to come.



Implementing measures to reduce our carbon output through harbours is not a one-size-fits-all approach.

Examples of innovation combined with carbon reduction:

- Biomass boiler and solar panels at Brodick Ferry Terminal, Arran
- Reed beds at Portavadie provide a low-cost, zero energy wastewater treatment system
- Air source heating system at Tarbert Ferry Terminal

When designing new buildings, CMAL endeavour to implement as many energy saving measures as we are able to within that location. As with our fleet, we will adopt new technologies for ports vessels and harbours that will further reduce, if not eliminate, harmful emissions in order that we play our part in realising our Net Zero ambitions by 2045.

Annexe C

Press release from CMAL following NZET Committee evidence session on 31 January 2023

1 February 2023

Background

CMAL is committed to procuring a safe and effective ferry service to the communities it serves. Decision-making is informed by extensive community engagement, forecasting and future proofing, as well as environmental and funding considerations.

In terms of vessel design, CMAL receives a statement of operator requirements, which reflects operational and service needs. Potential vessel options / designs are considered by CMAL's in-house naval architects, who work with external ship designers and independent naval architects to provide objectivity and independent expertise in the process. They are supported by a professional team of engineers to deliver complex solutions suitable for the demanding operating conditions in Scotland.

Comment

Kevin Hobbs, CEO of CMAL, said: "In the past twelve months, we have successfully tendered for a further four vessels, two of which – destined for Islay – are already under construction and ahead of schedule.

"CMAL is not anti-catamaran; in fact, we are considering a catamaran for the Dunoon - Kilcreggan - Gourock route. But what often goes unreported is that in geographies similar to Scotland, with comparable weather and sea conditions, catamarans are not a common choice for passenger / commercial ferry services. In fact, of the 435 ferries (passengers, cars and freight) that operate from Dover Strait northwards, including the North Sea, Baltic Sea and Scandinavian fjords – only six are catamarans.

"There are good reasons for this. An important factor in vessel choice is compatibility with specific routes, as well as flexibility to meet vessel redeployment needs across the network. We will only ever order the vessels best suited to the routes and communities they are intended to serve."