

Outer Hebrides STAG Appraisal

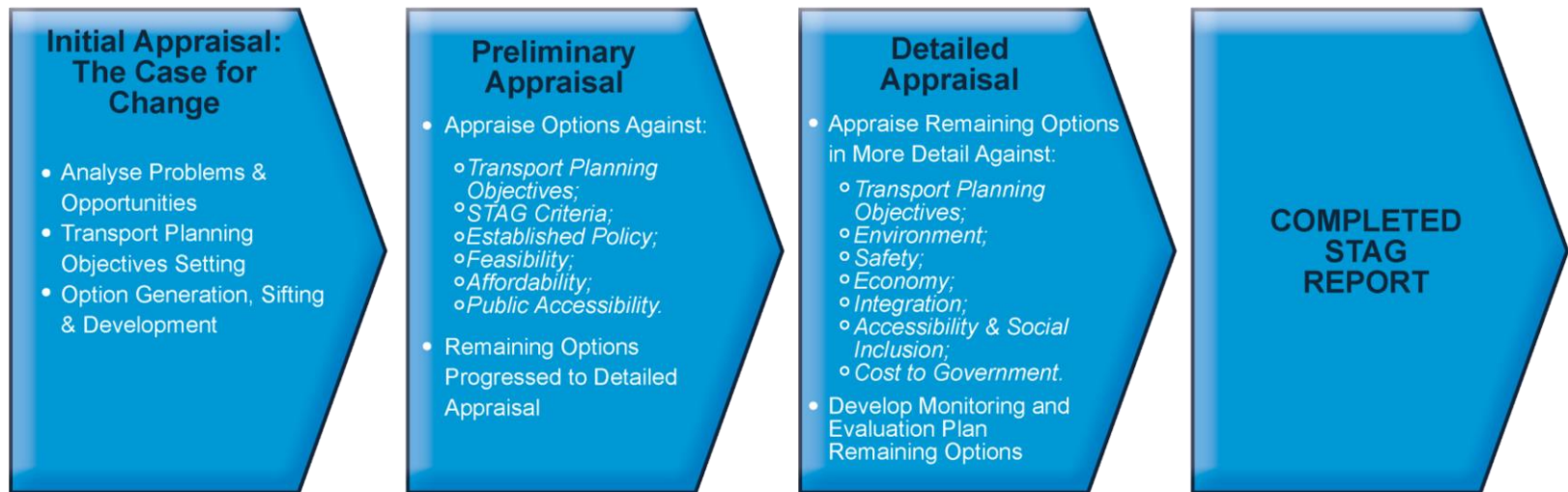
Sound of Harris Exhibition Boards

What is the study about?

- A transport appraisal of the long-term options for the ferry routes to, from and within the Outer Hebrides, including the Sounds, was a commitment made in the Vessel Replacement & Deployment Plan (VRDP) annual report for 2015
- Peter Brett Associates LLP, now part of Stantec, has been commissioned by Transport Scotland to carry out this appraisal. The study is being informed and guided by a Reference Group, which is being led by Transport Scotland and includes Comhairle nan Eilean Siar, HITRANS, CMAL and CalMac Ferries Ltd
- The appraisal will identify and evaluate options for the short, medium & long-term development of the Outer Hebrides network

Scottish Transport Appraisal Guidance (STAG)

- The appraisal is being undertaken using a Transport Scotland process referred to as 'STAG', the approved guidance for the appraisal of potential transport projects
- The principle of STAG is that it is **objective-led rather than solution-led**, ensuring that the option(s) ultimately taken forward address the identified transport problems and are the most appropriate when judged against a range of criteria



- The study is at the **Detailed Appraisal** stage, and we are now seeking public & stakeholder views on the emerging outputs

What are we presenting today?

- For the **Sound of Harris route (Leverburgh – Berneray)**, the following boards set out:
 - the transport problems & opportunities on the Sound of Harris route
 - the study 'Transport Planning Objectives' against which options are assessed
 - the options developed and appraised for the Sound of Harris route
 - how these options feed into a 'Draft Network Plan' for the Outer Hebrides as a whole
- *Please note:*
 - *Equivalent material for all **other routes** operating to, from and within the Outer Hebrides is provided in booklet form on the tables around the room*
 - *The material presented at the **2018 public exhibitions** telling the story so far in terms of timetables, connectivity, capacity and reliability is also presented in booklet form around the room should you wish to (re)read this material*
- **Please browse the information for the route(s) relevant to you. When you are finished, please:**
 - **Take the time to give your thoughts to a member of the team if you wish**
 - **Fill out and hand back the comments form before leaving**
 - **All of the material presented is available on the Comhairle and HITRANS websites**

Sound of Harris: What did you tell us?

What did you tell us?

- An important step in a STAG study is defining and evidencing the **transport problems & opportunities** that any investment is intended to address
 - Consultation with the public and stakeholders is an essential part of gathering this evidence – the next few boards feed back on the key issues raised by island households & ferry users in relation to the **Sound of Harris** route
- Public exhibitions held in May 2018 allowed us to gather anecdotal views on problems & opportunities. These were supplemented by an island household survey and an onboard survey
 - Island resident survey: **82** household respondents had used the **Sound of Harris** route in the previous 12-months
 - Onboard survey: responses received from **264** passengers on the **Sound of Harris** service
- The key findings from the two surveys are presented on the next slides.

Travel Behaviour, Booking & Availability - *Household Survey (1)*

- On average, households reported undertaking 6 return journeys in the last year on this route
- Around 2/3 of households stated that these trips were fairly evenly spaced across the year
 - 30% all or mostly in summer
- Travel to / from work (23%), Visiting friends and relatives (19%), health (17%) and business trips (18%) are the main travel purposes
- Lewis is the most popular destination, with some evidence of onward travel to the mainland
- Bookings are mostly made
 - Winter: '1 week ahead' (33%) followed by '2-4 weeks ahead' (21%)
 - Peak Summer: '2-4 weeks ahead' (41%) followed by '1-3 months ahead' (27%)
- 39% of households state frequent or occasional difficulties in booking a vehicle onto the ferry
 - 45% report no problems in this respect
- These instances are focussed on:
 - May to July (May - 46%; June – 57%; and July – 49%)
 - Evenly spread across the week
- When bookings are thwarted, trips are:
 - Made using a different sailing on the same day (43%)
 - Made on a different day (40%)
 - Still made on original sailing using standby (30%)
 - Not made at all (20% of responses)

What did you tell us? *Household Survey (2)*

- People expressed dissatisfaction with these aspects of the service:
 - Quality of onboard wi-fi
- 1/4 stated that the current service prevents more frequent travel
 - Mainly affecting seeing friends and family less often (53%), fewer sporting & shopping opportunities (33%), difficulties in accessing business opportunities in the islands (7%), and fewer holidays / short breaks (27%)
- On average, households suggest an additional 3 return journeys per month if their concern with the route was addressed
- Only 11% felt the **main** ferry's onboard facilities did not fully meet their needs
- 25% felt the **relief** ferry's onboard facilities did not fully meet their needs
- Around 20% felt that facilities at the terminal did not meet their requirements

What did you tell us? *Onboard Survey*

Capacity issues and travelling with a vehicle

- Of those travelling with a vehicle onboard:
 - 11% had not booked
 - 75% had secured a place on their preferred route & sailing
 - 9% had booked onto their preferred route but not preferred sailing
- Overall 86% stated that the current timetable time of this sailing met their travel requirements, residents more so than visitors
- All visitors had or were planning to use another ferry route on this trip – 14% of these had not been able to secure a booking on their preferred route
- 84% were travelling with a vehicle, slightly more so for residents. The need to carry luggage / equipment and the convenience of having your own vehicle were the most commonly cited reasons for this
- 25% stated that improved public transport would or may have made them consider not bringing a car on board

Sound of Harris, Problems & Opportunities

Sound of Harris: Problems & Opportunities (1)

- The identification of problems & opportunities at the **route level**:
 - considered each element of the service / connectivity to ensure that all relevant problems & opportunities had been identified; and
 - undertook an assessment of the relative magnitude of each problem (as evidenced by the operator data and 2018 consultation). The assessment scale is as follows:
 - **○** – neutral
 - **x** - minor problem
 - **xx** - moderate problem
 - **xxx** - major problem

Sound of Harris: Assessment of Transport Problems

Aspect of Service / Connectivity	Relative Magnitude of Problem
Operations	xxx
Landside Infrastructure	○
Resilience	xx
Timetable	xxx
Capacity	xx
Punctuality & Reliability	xxx
Public Transport Integration	x

Sound of Harris: Problems & Opportunities (2)

- **Operations**

- The Sound of Harris is very shallow, has a large tidal range and a series of underwater hazards, including sandbanks and rocks. The vessel must follow a twisting set route defined by navigational buoys. There are operational limitations in place in respect of maximum wind speed, height of tide and visibility
- The service on this route is also limited to the hours of daylight (defined as one hour before sunrise and one hour after sunset for the primary vessel) which, when layered on top of the tidal issues, imposes severe constraints on this route during the winter timetable

- **Resilience**

- The conditions in the Sound of Harris mean that the route can typically only be served by vessels with a water jet propulsion system, as such vessels have an inherently shallow draught. As a result, the only two vessels which serve the route were specifically designed for it, MV *Loch Portain* (the main vessel) and MV *Loch Bhrusda* (the usual relief vessel). The MV *Loch Tarbert* has a passenger certificate for this route but CFL prefers not to use her as she has Voith Schneider propulsion units rather than water jets. The pool of relief vessels is therefore relatively small in the event of breakdown etc
- The available relief vessels are also of a lower vehicle carrying capacity than MV *Loch Portain* and fewer in number than on other CFL 'Small Ferry' routes

Sound of Harris: Problems & Opportunities (3)

- **Timetable**

- The winter timetables are governed by the operating restrictions on the route noted previously. The 'core' winter timetable reduces to two return sailings per day, with the operating day running from 08:15 to 15:40 due to the reduced hours of daylight

- **Capacity**

- Whilst there remains some scope for growth, this is limited, particularly if the RET-related growth continues
- The Sound of Harris route is also slightly unusual in that it experiences more high utilisation sailings in winter than most other routes on the network, which is largely a reflection of the curtailment of the timetable
- It is also worth noting that capacity pressures are more prevalent northbound (i.e. Berneray–Leverburgh) than southbound, particularly in the summer. This can be accounted for by the preference of tourists island-hopping / travelling the Hebridean Way to travel from south to north

- **Punctuality & Reliability**

- The operational challenges on the Sound of Harris also impact the reliability of the service. The data shows that the proportion of cancellations on the route is high, with one in ten sailings cancelled in 2017

- **Public Transport Integration**

- A bus service is scheduled to meet all sailings at each side of the crossing. Whilst public transport integration is near to seamless on this route, feedback obtained through the consultation suggested that the timetables are difficult to understand, particularly for those unfamiliar with them

Transport Planning Objectives

- The setting of Transport Planning Objectives (TPOs) is a key step in the STAG process as they define what the policymaker should be seeking to achieve through investing in a transport scheme
- The TPOs for this study were developed such that they could cover the entire Outer Hebrides network, albeit certain objectives will be more relevant to some routes than others.
- **Transport Planning Objective 1:** The *capacity* of the service should as far as reasonably possible meet the passenger and vehicle demand for the service.
- **Transport Planning Objective 2:** The timetable operated will meet all reasonable *connectivity* needs of each island.
- **Transport Planning Objective 3:** The *cancellation rate* of the Outer Hebrides to mainland ferry services should not exceed the average for all 'Major Vessel' routes (and for all 'Small Ferry' routes for the Sound services).
- **Transport Planning Objective 4:** The *resilience* of individual routes and the Outer Hebrides network as a whole should be improved and / or risks mitigated over the appraisal period.

Sound of Harris: Option Generation, Development & Appraisal

Option Generation, Development & Appraisal

- The STAG process requires the generation of a long-list of options for addressing the identified transport problems – these options can originate from:
 - Analysis of operator data, timetables and other secondary sources
 - Public & stakeholder inputs (e.g. public exhibitions, surveys etc)
 - Ideas considered in previous studies
- The long-list of options is developed and appraised against both the TPOs and a set of criteria set out in the STAG Guidance
- In the interests of brevity, the focus of most of the following boards is predominantly on the shortlist of options which progressed to the ‘Detailed Appraisal’ – i.e. those which had progressed through the initial two sifting exercises (known as Initial & Preliminary Appraisal)
 - The long-list of options (including those which have been sifted out) are listed on the next board and the reason for their exclusion is provided
 - If you would like more details on any of these earlier options or on the reasons for their exclusion, please do not hesitate to ask a member of the team.

Initial Long-List of Options

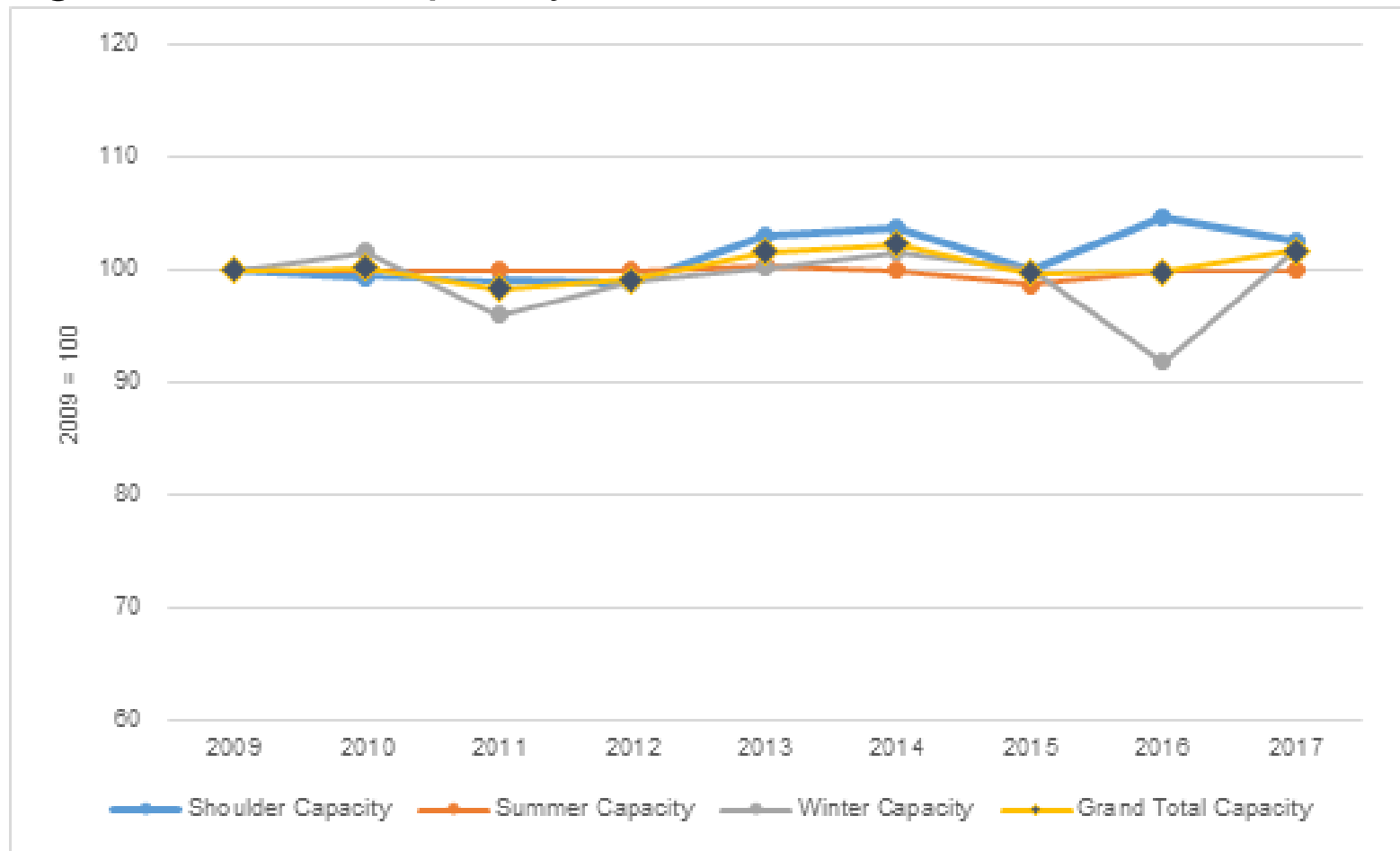
Option	Description	Rationale for Selection / Rejection
SOH1a	Operate the Sound of Harris service between Lochmaddy and Tarbert in winter	✘ - This option is rejected from further consideration as the MV <i>Loch Portain</i> would not be certified to operate this route.
SOH1b	Supplement the Sound of Harris service with a winter Lochmaddy – Tarbert service	✘ - This option is rejected from further consideration. Whilst a potentially attractive option, there is no prospect even in the medium-term of a ‘Major Vessel’ becoming available to operate this service during the winter months. Should a vessel become available in the future, this option could be revisited.
SOH1c	Supplement the Sound of Harris service with a winter Lochmaddy – Tarbert (or vice versa) return service using the Uig – Tarbert / Lochmaddy vessel	✘ - This option is rejected from further consideration. Whilst there is some merit in improving connections across the Sound of Harris, the volume winter route is Lochmaddy – Uig and thus any additional connections should be focussed on that route.
SOH2	Extend the length of the operating day in summer	✓ - This option is retained for further consideration.
SOH3	Introduce a second year-round vessel onto the route	✓ - This option is retained for further consideration.
SOH4a	Construct a fixed link across the Sound of Harris	From an operational perspective, there is considerable merit in a full fixed link across the Sound of Harris. The case for such an investment will be considered both through the Islands Deal submission and the second Strategic Transport Projects Review, which is currently underway and due to report in 2021. It will therefore not be considered further in this appraisal.
SOH4b	Construct a partial fixed link across the Sound of Harris	From an operational perspective, there is considerable merit in a partial fixed link across the Sound of Harris. The case for such an investment will be considered both through the Islands Deal submission and the second Strategic Transport Projects Review, which is currently underway and due to report in 2021. It will therefore not be considered further in this appraisal.
SOH5	Relocate the North Uist landfall from Berneray to the west side of Lochportain	✘ - This option is rejected from further consideration. Developing a new terminal and associated infrastructure on Lochportain would be a costly undertaking, particularly when set against a limited benefit.

Sound of Harris: Detailed Appraisal

Options Considered in Detailed Appraisal

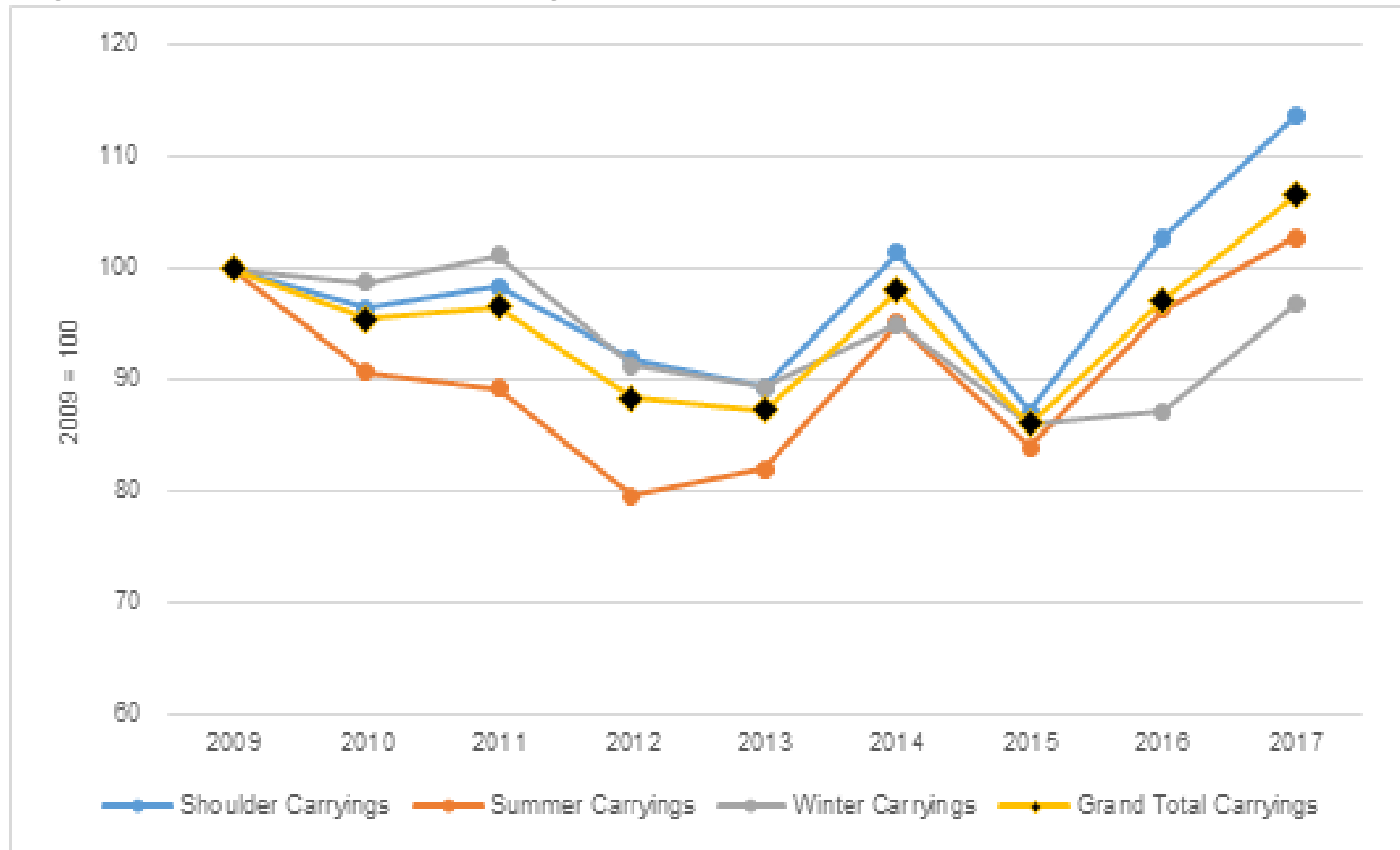
- Two options were shortlisted for consideration in the Detailed Appraisal:
 - **Option SoH2:** Extend the length of the operating day in summer
 - **Option SoH3:** Introduce a second year-round vessel onto the route
- The following boards:
 - provide some context in terms of current and forecast **capacity utilisation** on the Sound of Harris route
 - provide further details on the **specifics of each option**
 - set out the **appraisal** of each option against the TPOs and STAG criteria
 - provide our recommendation as to which options should progress to the '**Draft Network Plan**' for this route

Change in Route Capacity Over Time



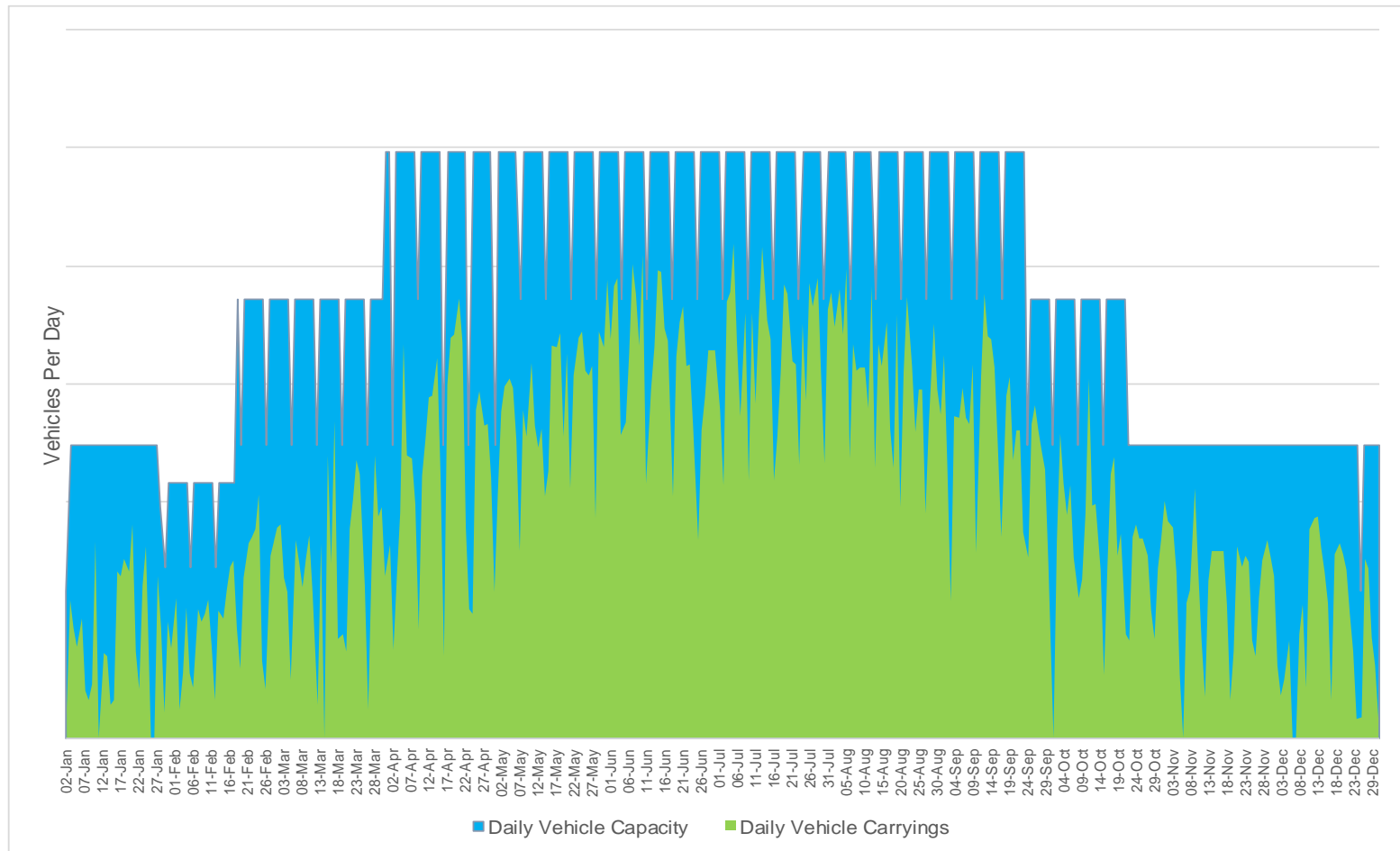
- Chart shows **total annual ferry vehicle capacity** indexed to 2009 (2009=100)
- Very stable supply side on this route with no significant changes between 2009 and 2017

Change in Route Carryings Over Time



- Chart shows **total annual ferry vehicle carryings** indexed to 2009 (2009=100)
- RET was introduced on the Sound routes in October 2015 and the impact can be clearly seen in 2016 and 2017 carryings
- There was a downward trajectory from 2009 to 2013, with carryings reducing by more than 10%

When is capacity a problem?

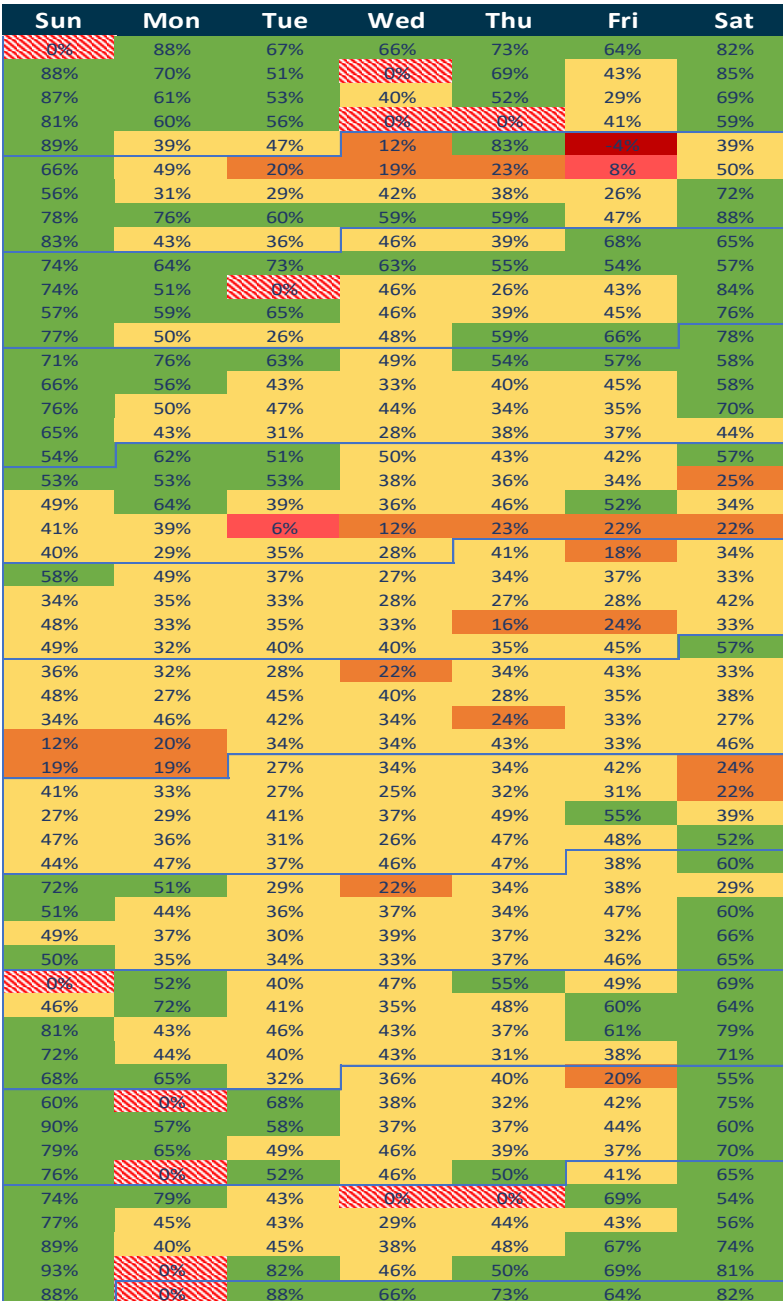


- Chart shows comparison of 2017 daily vehicle carryings (green) versus daily capacity (blue)
- Variation in capacity across the year shows the impact of the daylight hours restrictions
- Daily capacity is very rarely a problem on this route, with problems more likely to be associated with particular sailings across the day

Capacity Utilisation – Daily Available Vehicle Space, Berneray - Leverburgh

- Calendar shows **total daily remaining (i.e. available) vehicle space** between Berneray – Leverburgh in 2017
- e.g. on Monday 2nd January 2017, 88% of car deck space was available / not used
- Note days with the red hashing are days where all sailings were cancelled or there are no timetabled sailings
- There is a degree of pressure on the vehicle deck between late April and September. However, the data does suggest that there remains scope for expansion on this route
- Unlike other routes in the Outer Hebrides, capacity issues are periodically experienced in the core winter months due to the truncated timetable

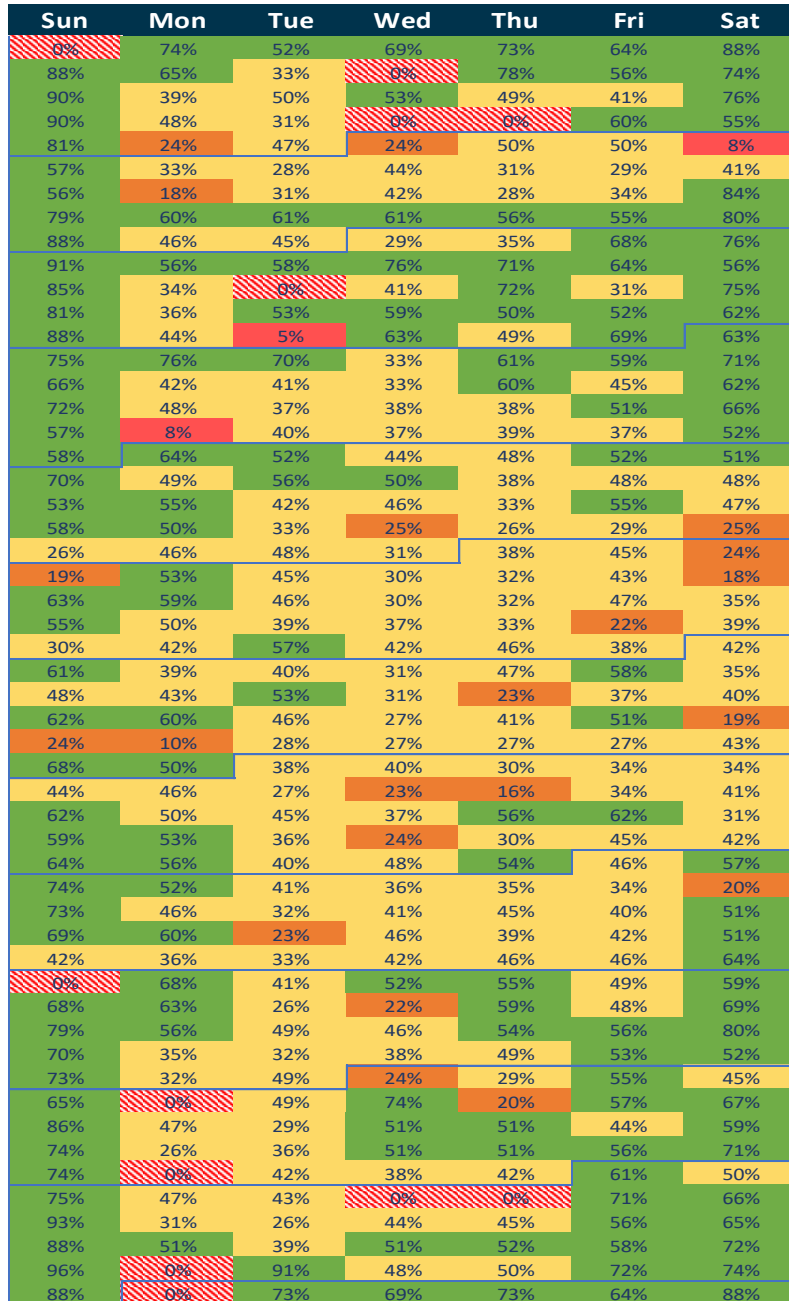
	Su	M	Tu	W	Th	F	Sa	
Jan	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14	
	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30	31	1	2	3	4	
	Feb	5	6	7	8	9	10	11
		12	13	14	15	16	17	18
19		20	21	22	23	24	25	
26		27	28	1	2	3	4	
Mar		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
		19	20	21	22	23	24	25
	26	27	28	29	30	31	1	
	Apr	2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
23		24	25	26	27	28	29	
30		1	2	3	4	5	6	
May		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
	21	22	23	24	25	26	27	
	28	29	30	31	1	2	3	
	Jun	4	5	6	7	8	9	10
		11	12	13	14	15	16	17
		18	19	20	21	22	23	24
25		26	27	28	29	30	1	
Jul		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
	23	24	25	26	27	28	29	
	30	31	1	2	3	4	5	
	Aug	6	7	8	9	10	11	12
		13	14	15	16	17	18	19
20		21	22	23	24	25	26	
27		28	29	30	31	1	2	
Sep		3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
	24	25	26	27	28	29	30	
	Oct	1	2	3	4	5	6	7
		8	9	10	11	12	13	14
		15	16	17	18	19	20	21
22		23	24	25	26	27	28	
29		30	31	1	2	3	4	
Nov		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
	19	20	21	22	23	24	25	
	26	27	28	29	30	1	2	
	Dec	3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
24		25	26	27	28	29	30	
31		1	2	3	4	5	6	



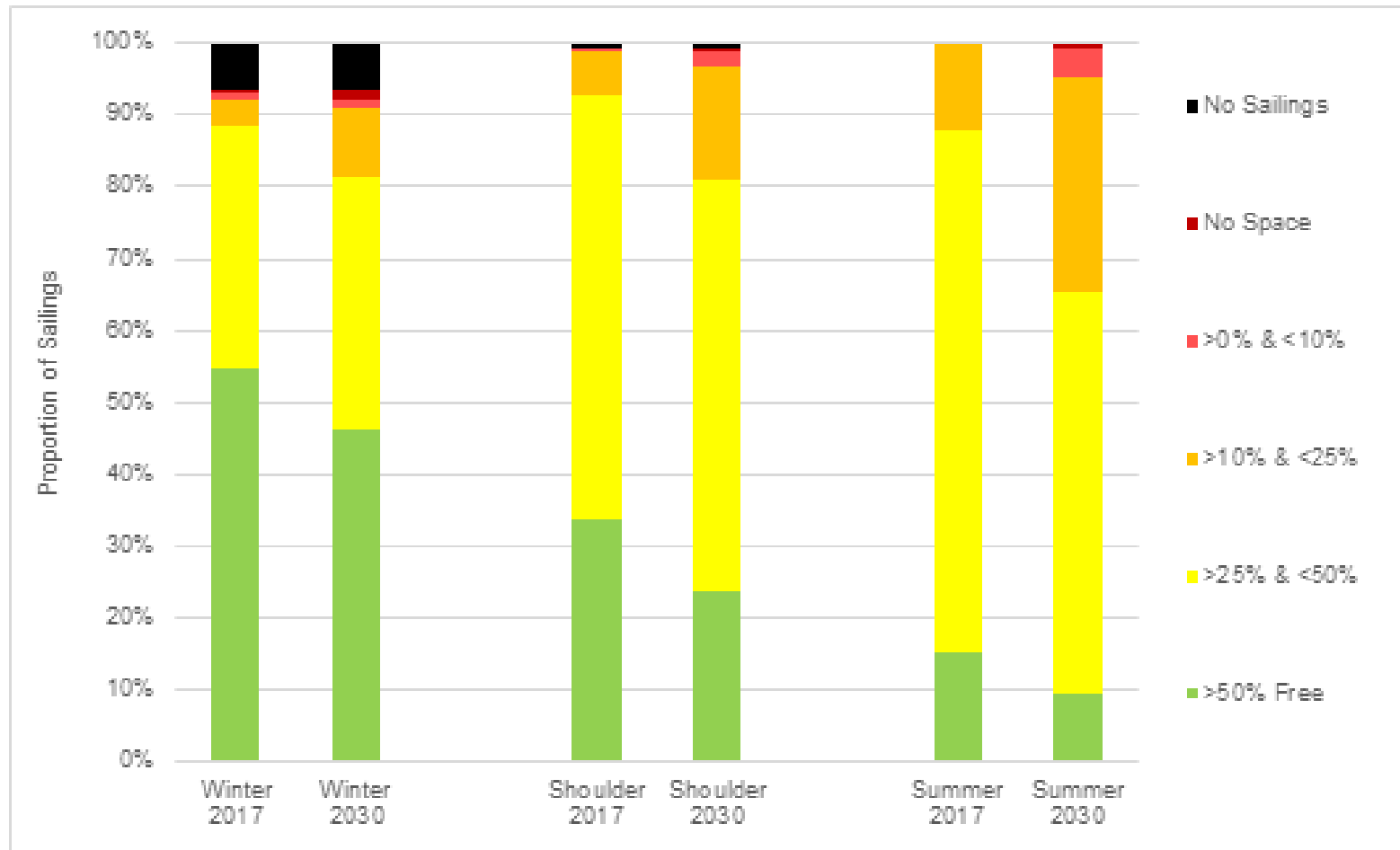
Capacity Utilisation – Daily Available Vehicle Space, Leverburgh - Berneray

- Calendar shows **total daily remaining (i.e. available) vehicle space** between Leverburgh – Berneray in 2017
- e.g. on Monday 2nd January 2017, 74% of car deck space was available / not used
- Note days with the red hashing are days where all sailings were cancelled or there are no timetabled sailings
- The pattern of vehicle deck utilisation in the southbound direction is broadly similar to the northbound.

	Su	M	Tu	W	Th	F	Sa	
Jan	1	2	3	4	5	6	7	
	8	9	10	11	12	13	14	
	15	16	17	18	19	20	21	
	22	23	24	25	26	27	28	
	29	30	31	1	2	3	4	
	Feb	5	6	7	8	9	10	11
		12	13	14	15	16	17	18
19		20	21	22	23	24	25	
26		27	28	1	2	3	4	
Mar		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
		19	20	21	22	23	24	25
	26	27	28	29	30	31	1	
	Apr	2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
23		24	25	26	27	28	29	
30		1	2	3	4	5	6	
May		7	8	9	10	11	12	13
		14	15	16	17	18	19	20
	21	22	23	24	25	26	27	
	28	29	30	31	1	2	3	
	Jun	4	5	6	7	8	9	10
		11	12	13	14	15	16	17
		18	19	20	21	22	23	24
25		26	27	28	29	30	1	
Jul		2	3	4	5	6	7	8
		9	10	11	12	13	14	15
		16	17	18	19	20	21	22
	23	24	25	26	27	28	29	
	30	31	1	2	3	4	5	
	Aug	6	7	8	9	10	11	12
		13	14	15	16	17	18	19
20		21	22	23	24	25	26	
27		28	29	30	31	1	2	
Sep		3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
	24	25	26	27	28	29	30	
	Oct	1	2	3	4	5	6	7
		8	9	10	11	12	13	14
		15	16	17	18	19	20	21
22		23	24	25	26	27	28	
29		30	31	1	2	3	4	
Nov		5	6	7	8	9	10	11
		12	13	14	15	16	17	18
	19	20	21	22	23	24	25	
	26	27	28	29	30	1	2	
	Dec	3	4	5	6	7	8	9
		10	11	12	13	14	15	16
		17	18	19	20	21	22	23
24		25	26	27	28	29	30	
31		1	2	3	4	5	6	



Capacity Utilisation – Forecasts



- Chart **compares 2017 and illustrative forecasts for 2030** vehicle deck space / availability by season
- Based on the projections used here, few capacity issues are expected with the next 10-15 years, albeit there may be specific sailings across the day which are challenging to secure a booking on

SoH Option 2: Extend the length of the operating day in summer

- **Vessel & Harbour Implications**

- None

- **Operational Feasibility**

- Assumed that service would be extended to 21:00 and would operate from May to mid-August.
- The current timetable would need to be condensed if one or more additional sailings is to be delivered. At present, the service finishes at 19:30, which would not allow an additional return sailing to be completed by 21:00.
- There would be a significant challenge in crewing an extended operating day service. There are several short CFL routes where a shift-based system provides a longer operating day than that which can be delivered by a single crew, Colintrave – Rhubodach for example. However, these are year-round operations and would not require switching between a single crew and shift system mid-year. An assessment of the crewing requirements would need to be undertaken by CFL if this option were to be progressed.

- **Timetable**

- One additional return sailing per day subject to appropriate weather and tidal conditions. The tidal timetable would continue to operate, which may reduce the overall positive impact of this option.

- **Capacity**

- 25% uplift in daily capacity, or 82 lane metres in either direction per day

Option SoH3: Introduce a second year-round vessel onto the route

- **Vessel & Harbour Implications**

- The Sound of Harris route has only ever been operated by the MV *Loch Portain* and MV *Loch Bhrusda*
- In light of the above, it is possible that the route could be doubled-up in summer using the 'spare' vessel MV *Loch Bhrusda*. However, she would need to depart the route shortly before the end of the summer timetable to cover the refit of MV *Lochnevis* before going on general refit duty across the network in winter
- Any expansion of the service in the winter months would therefore require a new-build or cascaded vessel, which is either:
 - specifically designed for the Sound of Harris route and Euro B compliant; or
 - a more generic *Loch* Class vessel, increasing the fleet size by one and allowing MV *Loch Bhrusda* to remain on the route for most of the year
- An additional overnight berth would be required for MV *Loch Bhrusda*

- **Operational Feasibility**

- Vessel availability raises a major feasibility question around this option
- Given the narrow and shallow route across the Sound of Harris, CFL may need to take a view on operational procedures for the safe passing of vessels

- **Timetable**

- Doubling of current day service levels

- **Capacity**

- Major increase in capacity on the Sound of Harris. The vehicle deck capacity of the MV *Loch Bhrusda* is approximately half that of the MV *Loch Portain*, thus providing an approximately 33% increase in capacity if the service was doubled-up

Appraisal of Options against TPOs

Option	TPO1 - Capacity		TPO2 – Connectivity		TPO3 - Reliability		TPO 4- Resilience	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Option SoH2: Extend the length of the operating day in summer	✓	○	✓	○	○	○	○	○
Option SoH3: Introduce a second year-round vessel onto the route	✓✓✓	✓✓✓	✓✓✓	✓✓✓	○	○	✓	✓

- **Option SoH2** would offer a minor capacity and connectivity benefit, particularly in peak summer. A longer operating day would potentially allow for more meaningful day trips between Harris and North Uist (and vice versa)
- **Option SoH3** would provide a major capacity benefit. It would also provide a major connectivity benefit by doubling the frequency of the service, a particularly key issue in the core winter timetable when the service is reduced to two return sailings per day

Assessment Scale
 ✓✓✓ - major positive
 ✓✓ - moderate positive
 ✓ - minor positive
 ○ - Neutral
 ✗ - minor negative
 ✗✗ - moderate negative
 ✗✗✗ - major negative

Appraisal of Options against STAG Criteria

Option	Environment	Safety	Economy	Integration	Accessibility & Social Inclusion	Cost to Gov.
Option SoH2: Extend the length of the operating day in summer	x	0	✓	✓	✓	Low to Moderate
Option SoH3: Introduce a second year-round vessel onto the route	xx	0	✓✓	✓	✓✓	Moderate

- **Option SoH2** would provide a minor benefit with respect to the Economy criterion, particularly if it increased supply-chain and other interactions between North Uist and Harris. By extension, there would also be a minor Accessibility & Social Inclusion benefit.
- **Option SoH3** would foster much closer interaction between Uist and Harris & Lewis, providing moderate Economy and Accessibility & Social Inclusion benefits as it would reduce the current severance between Uist and Harris & Lewis, offering opportunities in terms of the design of supply-chains, public service delivery, travel on personal business and tourism.

Options Shortlisted for 'Network Plan'

Option	Description	Rationale for Selection / Rejection
SOH2	Extend the length of the operating day in summer	✘ - This option is rejected from further consideration given the substantial crewing and logistical implications to achieve one additional return sailing.
SOH3	Introduce a second year-round vessel onto the route	✔ - This option is retained for further consideration and will be considered in the context of proposed changes to mainland routes in the Network Plan.

Outer Hebrides Wide Options, Detailed Appraisal

Outer Hebrides-wide Options

- In addition to the route specific options which are being presented at these exhibitions, a series of Outer Hebrides-wide options were developed and appraised
 - These options are defined as impacting on more than one landmass within the Outer Hebrides, so for example a freighter shared between Lewis and Uist
 - In the interests of brevity, only brief details on the options considered and the rationale for selection / rejection are presented here, but please speak to the team if you would like more details on any specific options considered
- In summary, only the **Outer Hebrides-wide option OH8 (Introduce Demand Management Measures)** is being retained for further consideration within the Network Plan

	Description	Rationale for Selection / Rejection
OH1	Rationalise the service to two routes with two Outer Hebrides access points (one for Lewis & Harris and one for Uist & Barra) and a single mainland port (Uig)	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> • There would be significant public acceptability issues, particularly in Barra • Journey times would be extended for residents of Lewis, Harris, South Uist, Eriskay and Barra. • Significant investment has recently been made at Ullapool, with investment planned at Tarbert. The benefits of this investment would be lost and could lead to financial difficulties for trust ports • There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.
OH2	Rationalise the service to two routes with two Outer Hebrides access points (one for Lewis & Harris and one for Uist & Barra) and two mainland ports (Ullapool & Uig)	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> • There would be significant public acceptability issues, particularly in Barra, where a ferry crossing would be required to connect with any mainland ferry service. • Journey times would be extended for residents of Harris, South Uist, Eriskay and Barra. • There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.
OH3	Rationalise the service to one route by routeing all island – mainland services via Stornoway–Ullapool	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> • There would be significant public acceptability issues, particularly in Barra, where two ferry crossings would be required and in Uist where one ferry crossing would be required to connect with any mainland ferry service. • There would be significant costs of upgrading Stornoway Harbour, the Spinal Route and potentially a fixed link across the Sound of Harris. • Without a fixed link across the Sound of Harris, a service would need to be maintained between Lochmaddy and Tarbert, meaning that the cost savings associated with discontinuing the ferry service at these ports would not be realised. • Journey times would be extended for residents of Harris, Uist and Barra. • There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.
OH4	Rationalise the service to four routes by routing all Uist services through a single new port at Lochcarnan, using the short-sea crossing to Dunvegan or Milovaig on Skye	<p>✘ - This option is rejected from further consideration for the following reasons:</p> <ul style="list-style-type: none"> • The costs of building the new harbours and enhanced road infrastructure would be significant and up-front. • There would be significant public acceptability issues in certain communities within Uist (particularly Lochmaddy and Lochboisdale), although this option may be attractive to some. There would likely be public acceptability issues in north-west Skye • There are likely to be planning and environmental impediments to developing new harbours in Uist where two already exist, as well as in Skye. • There would be negative socio-economic impacts on all communities from which the ferry service is withdrawn.

	Description	Rationale for Selection / Rejection
OH5	Rationalise the service to four routes by routeing all Uist services through Lochmaddy	✘ - Whilst there would be transport and financial benefits to hubbing Uist services through Lochmaddy, the closure of Lochboisdale and the discontinuation of the Mallaig / Oban route would have a highly negative impact on South Uist & Eriskay in terms of economic confidence and the accessibility of residents. Moreover, this option would lead to an overall loss in flexibility for Uist residents in terms of timetable, destinations and resilience.
OH6	Rationalise the service to two (or zero) routes by constructing a fixed link between North Uist and north-west Skye	<p>✘ - This option is rejected from further consideration in this study for the following reasons:</p> <ul style="list-style-type: none"> • A fixed link of this distance (around 25km) plus connecting infrastructure would be hugely expensive, with the cost also up-front. • The notion of a fixed link is entirely conceptual at this stage, in terms of the form it would take and the likely alignment. • Lead in times would mean that even if a decision was taken to proceed, the link would not be in place until well into the appraisal period being considered here. • There would be major planning and environmental issues. • There would likely be split opinions within the community on whether a fixed link is desirable. <p>Whilst conceptually, this option would provide a wide range of benefits, the scale of investment required means that it is unaffordable. It should also be noted that Comhairle nan Eilean Siar chose not to include a fixed link between North Uist and Skye in their Islands Deal submission.</p>
OH7a	Develop a new freight route serving Stornoway and Lochmaddy	✘ - This option has significant merits when considered in a stand-alone form, including the provision of additional freight capacity on the two volume routes to the Outer Hebrides and releasing the MV <i>Loch Seaforth</i> to operate a third return Ro-Pax sailing four days per week. However, the legs between Stornoway & Lochmaddy are likely to be only lightly used and it can be argued that a more efficient and cost effective option would be to add a second vessel (freighter or Ro-Pax) to Stornoway – Ullapool and / or Lochmaddy – Uig.
OH7b	Develop a new Ro-Pax route serving Stornoway and Lochmaddy	✘ - This option is rejected from further consideration on the same basis as Option OH7a.
OH8	Introduce demand management measures on routes across the Outer Hebrides	✓ - This option is retained for further consideration as it would assist in maximising the use of available capacity. It is not however specifically considered as an option in the appraisal, rather it is integrated within the development of the wider Draft Outer Hebrides Network Plan.

Emerging Network Plan

The Draft Network Plan

- Having appraised options for all routes to, from & within the Outer Hebrides, a draft Network Plan has been developed which brings together the outputs of the route specific considerations
 - A reminder that analysis and conclusions for all other routes are available in booklets around the room
- The Draft Network Plan considers:
 - Short-term measures (to 2023)
 - Medium-term measures (to 2032, which covers the period of the next *Ferries Plan*)
 - Long-term considerations beyond 2032 which will need to be planned for between now and then
- **A few points to note...**
 - **The options presented in the Draft Network Plan remain conceptual at this stage – the purpose of this engagement exercise is to seek feedback on the proposals developed**
 - **The Plan does not imply a commitment from Transport Scotland – if the Draft Network Plan is approved, it would remain subject to available funding**
 - **In parallel to this engagement process, CalMac is reviewing the deliverability of the options being presented**
 - **The Draft Network Plan is also in the process of being more fully costed**

Short-Term Measures (to 2023)

- The lead time for developing a business case for a new vessel, securing funding, placing an order, building the vessel and adapting / developing infrastructure is in the region of 5 years
- Short-term measures are therefore focused on identifying:
 - **What more can be done with current vessels & harbours** to plug evidenced connectivity gaps and capacity problems; and
 - **Preparatory work** for necessary capital infrastructure investment.
- It is not anticipated that new vessels will be in service during this period except where there is a possibility to procure them via the charter / second-hand market or a cascade from within the existing fleet

Short-Term Measures (to 2023) – Outer-Hebrides Wide & Capital Options

- **Outer Hebrides-wide Options**

- Transport Scotland and the operator to explore the extent to which existing capacity could be better used through the implementation of **demand management** measures
- Develop a medium-term **Vessels Plan**, thus ensuring the capital options progressed as part of this appraisal are nested within a wider delivery plan.

- **Capital investment preparation**

- Progress a dedicated like-for-like new vessel for the Lochboisdale – Mallaig route, together with a new Lochboisdale harbour
 - The new vessel would be designed to fit within the current Mallaig Harbour, although redevelopment of Mallaig retained as a longer-term ambition
 - New vessel would operate two return sailings per day
- Second vessel for Stornoway – Ullapool route: further work is required to determine whether this is a part-year or year-round freighter or part-year Ro-Pax vessel
 - Capacity analysis suggests that a second Stornoway – Ullapool vessel would provide greater benefits than a second vessel on the Uig Triangle, particularly given the forthcoming introduction of FMEL 802 – although the impact of this vessel should be closely monitored

Short-Term Measures (to 2023): Service Enhancements

- Operate a Saturday evening return Ro-Pax sailing from Stornoway to Ullapool between June and September, with the Sunday overnight freight sailing suspended during this period
- Operate the overnight freight service in Ro-Pax mode on a Monday and Friday between June and September
 - An agreed amount of deck-space should be allocated for freight on these sailings
- The availability of a charter freighter for the Stornoway – Ullapool route should be considered ahead of the proposed capital option being delivered. This would permit up to three MV *Loch Seaforth* Ro-Pax services per day
- The Saturday evening Ro-Pax sailing and opening the overnight freight service to vehicle bookings on certain days of the week would **not** be required if this option was delivered
- Extend the length of the operating day on the Sound of Barra
- There are two further service enhancements which could be delivered in the short-term should the respective communities be receptive to them:
 - Operate the Lochboisdale – Mallaig / Oban service 7-days per week year-round
 - Operate the Castlebay - Oban service 7-days per week year-round
- The following opportunities could be pursued should an appropriate vessel become spare:
 - Introduce a second-year round vessel onto the Sound of Harris route
 - Introduce a second summer vessel onto the Sound of Barra route

Medium-Term Measures (to 2023-2032)

- Introduce new Lochboisdale – Mallaig & Stornoway – Ullapool vessels early in the period
- The MV *Isle of Lewis* will need to be replaced during this period
 - The capacity utilisation forecasts suggest that a vessel of this size is not required to operate the Castlebay – Oban route and thus the option of procuring an open-deck vessel of a proportionate capacity could be pursued (i.e. MV *Clansman* size).
- At the outset of the ‘medium-term’ period, there should be a degree of certainty on the future development of Mallaig Harbour. If the decision is taken to upgrade that port to accommodate the wider ‘Major Vessel’ fleet, a review could be undertaken as to whether a larger vessel should be deployed on the Lochboisdale – Mallaig route.
 - The smaller Lochboisdale – Mallaig vessel could be redeployed elsewhere on the network
- There would also be a degree of certainty as to whether a full or partial fixed link for the Sound of Harris emerges from either the Islands Deal or Strategic Transport Projects Review 2. This would determine whether a ferry service is still required on that route. If so, a ‘Euro B’ compliant main & relief vessel for that route would be required by the mid-2030s, so planning would have to commence.
- In relation to the Sound of Barra, an ongoing review of capacity utilisation would determine the appropriate vessel solution for that route when MV *Loch Alainn* is retired from service in the late 2020s / early 2030s

Long-Term Considerations (beyond 2032)

- 2031-2036 Replacement of MV *Hebrides*.
- 2033-2038: Replacement of MV *Loch Portain* with a 'Euro B' vessel unless a fixed link for the Sound of Harris is progressed through the Islands Deal or STPR.
- 2045-2050: Replacement of MV *Loch Seaforth*
- Ongoing monitoring of capacity utilisation to inform future fleet deployment and investment decisions

Completing the Study

Completing the Study

- The feedback from this event and wider engagement with stakeholders, the Reference Group and Transport Scotland will be used to refine the appraisal of the options
 - This will include a more detailed review of deliverability and cost to government
- The STAG Report will be finalised and published in Autumn 2019
- Transport Scotland will discuss the published report with stakeholders
- Transport Scotland will feed the outputs of the study into future versions of the *Vessel Replacement & Deployment Plan* and the next *Ferries Plan*

What to do next

- Please take this opportunity to provide your thoughts on the options presented to the team and ask any questions you may have
- The boards you have just read provide some areas you may wish to discuss but we would be happy to hear any views that you have
- Please also take the time to fill out the exit questionnaire before you leave. It can also be found here:

<https://www.surveymonkey.com/r/OuterHebridesExhibitionQuestionnaire>

Thank you for coming