

REVIEW OF THE UPLIFT FACILITIES AT CAIRNGORM MOUNTAIN

EXECUTIVE SUMMARY

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Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

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In January 2018 SE Group, in association with Fourth Street, was retained by Highlands and Islands Enterprise (HIE) to conduct a comprehensive, independent review of the uplift facilities at Cairngorm Mountain resort (Cairngorm) to determine the best way forward for potential reinvestment.

This robust analysis delved into all aspects of ski area operations, the winter and summer marketplace, the site and existing infrastructure, potential revenues and costs, and stakeholder perspectives.

The findings and recommendations of this project present a five- to ten-year vision for Cairngorm, which in turn will build upon the Glenmore and Cairngorm Strategy.

KEY POINTS:

Overview

- There is immense unlocked potential at Cairngorm that can be unleashed with targeted, strategic investments
- Cairngorm's potential carrying capacity is 2,700 but actual capacity is only 1,600
- The funicular is unique to Cairngorm and should continue to be enhanced, and restricting its use to e.g. ski school and non-skiers should be explored once new uplift is in place
- Snow fencing is crucial to operations at Cairngorm and the system should be used and upgraded as necessary to consistently provide snow on the slopes and reduce snow drifting
- Cairngorm doesn't have a high enough skier capacity to justify the expense of reopening and running Coire na Ciste, nor would it effectively resolve the overcrowding and long queues.
- Cairngorm and the wider community should work together to present a unique experience and seamless message about the destination
- There is an opportunity to provide transport links connecting Cairngorm with the greater Aviemore tourist destination

New infrastructure

- New infrastructure and technology should be put in place to mitigate against closures of the access road, funicular, lifts, and terrain due to weather events
- A mountain coaster and zip line tour would provide outdoor recreation experiences to a wide range of tourists and interests, while generating revenues
- Snowmaking would enable Cairngorm to ensure snow coverage for the entire ski season
- A 3,200 people per hour (pph) aerial chairlift in Coire Cas would improve operational efficiency and make the resort attractive to destination skiers
- An additional 3,000 pph aerial chairlift would link areas of the mountain via a high-speed lift and access race terrain to facilitate races and training
- Improvements such as a base area carpet conveyer lift would provide a 'best-in-class' beginner experience, regardless of weather, to attract and maintain the family market
- Expanding and remodelling the Ptarmigan, reopening the Sheiling, and improving the base facilities would improve operations, capacity, experience, and revenues across the resort
- A lift-served mountain biking system is consistent with the 'outdoor adventure' orientation of the area and would be accessible to many

Investment

- The total estimated capital costs of upgrading facilities is approximately £27m over five to ten years
- The proposed improvements are intended to increase winter visits to 150,000 consistently, higher during peak years

ANALYSIS. THE COMPLEXITY OF THE EXISTING CONDITION

The terms of engagement for this review exercise are twofold: 1) undertake a comprehensive review of the facilities at Cairngorm, and 2) opine on opportunities for future reinvestment. The phrasing of the first task is telling, and the use of descriptor 'comprehensive' intentional—to fully understand the current state of the Cairngorm facilities and operations requires a much deeper dive into the complexity of the larger context in which Cairngorm exists.

The Marketplace

A market assessment was undertaken to define industry trends, regional and local market demographic profiles and identify the existing regional amenities and attractions in the area surrounding Cairngorm.

The assessment looks at Cairngorm's ability to achieve previous visit levels and the necessary steps to do so, providing a framework for proposed upgrades to the resort. Overall, the ski resort industry is highly competitive, and resorts must set themselves apart through a unique brand and efficient operations to succeed.

Scottish ski resorts, Cairngorm included, have struggled with that competition and seen a declining number of visitors in the past twenty years. Cairngorm's visitor numbers have been very variable in that period, ranging from $\pm 20,000$ to $\pm 140,000$ skier visits in good snow years.

However, the British population still participates in skiing at a very high rate (10%, compared to 3% in the U.S.) and the popularity of indoor, artificial slopes in Glasgow and other urban areas demonstrates a strong level of interest in the sport. British skiers have also expressed a desire to ski in Scotland again, particularly to teach their children to ski in Scotland.

To bring these skiers to Cairngorm, the resort will need to provide the modern infrastructure destination skiers have come to expect, reliable snowpack, in combination with Cairngorm's unique, rugged experience.

Other important factors for the ski area's success include appealing to millennials through affordability and short lift queues, providing an excellent beginner experience, and capitalising on the strong tourism to Aviemore and Cairngorms National Park in the winter and the summer.

The existing visitors to the area in the summer present many opportunities for Cairngorm to increase summer visits and revenues. Cairngorms National Park and the region are a major summer destination for tourists interested in natural beauty and adventure. Cairngorm can have a broad summer appeal with activities for all types of visitors that generate revenue.

The Natural Environment

Cairngorm is at the heart of the UK's biggest national park, and the Cairngorm Mountains National Scenic Area. It is also recognised internationally for its wildlife habitats and wild birds. These aspects are beneficial in attracting people to the resort, and must also be taken safeguarded in the context of commercial activity and development.

Cairngorm is also the sixth highest mountain in the UK and subject to frequent adverse weather events that can lead to closures of the access road, funicular, lifts, and terrain. These impede the resort's operational efficiency and detract from the visitor experience. New infrastructure and technology should be put in place to mitigate against the impacts of these weather events.

Climate change is expected to impact the weather conditions at Cairngorm, although not to the extent that other Scottish ski areas may experience. The potential impacts and the uncertainty around them should also be considered going forward.

Existing Operations

The existing mountain infrastructure at Cairngorm does not provide a skiing experience that can compete in today's marketplace, reflected in the downward trend of annual ski visits. The lift system is slow, uncomfortable riding, and requires significant labour to operate, leading to long queues and lift closures in the base area.

The ski area lacks a snowmaking system and, therefore, cannot provide the reliable snow cover necessary to operate its lifts, open its terrain, and encourage visitors to plan trips to Cairngorm. Analysis of climatic conditions shows snowmaking operations would be feasible.

The guest services facilities do not match the resort's overall capacity and the facilities can be very crowded, also detracting from the visitor experience. With the funicular, the resort has many non-skier visits and needs to accommodate them as well. On crowded days, the parking area at Coire Cas fills up and some visitors must park in the Coire na Ciste car park. There is an opportunity to provide a public transport link to Aviemore, connecting Cairngorm physically and conceptually to the greater Aviemore tourist destination.

Coire na Ciste

This assessment was specifically tasked with investigating the possibility of re-establishing the second base area at Coire na Ciste. The two main reasons cited for this are 1) to enable ski access when the Coire Cas road is closed, and 2) to alleviate crowding and queues at Coire Cas.

To open the ski area during a road closure, the Coire na Ciste base area would require a duplicate of nearly everything found at Coire Cas - ticketing, rentals, snowsports school, food, administration, medical services, at least one snowcat/pisting machine and maintenance facility.

Two possibilities for the reopening the Ciste were identified and analysed; one involving a surface lift system and a second using a chairlift.

A surface lift would cost around £600k and require snow to operate. Relying on natural snowfall or traditionally produced man-made snow (i.e., utilising snow cannons) is inadvisable below 620 metres. The Ciste sits at 540 metres. A SnowFactory machine could work at lower levels, and would typically cost around 400k euros to buy and £35k a year to run. This option has very high capital and operating costs without fully improving the guest experience.

An aerial chairlift would not require a skiable track back to the Ciste base. A new installation would cost between £2.5m, for a fixed-grip, and £5m for a detachable/gondola system (none of the past lift infrastructure could be utilised in a new system).

With 8,000 visits a day as the standard guideline in mountain planning to justify a second base area, it was concluded that the mountain simply doesn't have a high enough skier capacity to merit reopening Coire na Ciste. Cairngorm should instead maximise the operational efficiency by upgrading facilities at Coire Cas.

Carrying Capacity

At present, Cairngorm's potential carrying capacity is 2,700. However, the peak number of visitors on a single day and frequent lift closures indicate an actual carrying capacity of around 1,600. The proposed infrastructure improvements are designed to increase this to nearer the 2,700 figure.

Many existing operations issues result in greater expense, lower visits, and a negative visitor experience.

- The road to the resort may close during weather events or the work required to keep it open affects the efficiency of the operation, the guest experience, and ultimately visits and revenue. There are possible solutions to be investigated.
- The funicular is a major asset for the resort but the over-reliance on it is problematic given its limited capacity and non-skier use. Its susceptibility to closure also hampers the experience for both skiing and non-skiing visitors, and solutions are needed. With improved uplift in place, Cairngorm should explore restricting the funicular to a few types of visitors (i.e., ski school, non-skiers).
- Existing surface lift tracks are problematic. They are difficult to ride and maintain and they rely on proper snow coverage. They also take up space that could be used for skiing.
- Snow fencing is crucial to operations at Cairngorm and the system should be used and upgraded as necessary to consistently provide snow on the slopes and reduce snow drifting.
- The lower mountain, the terrain above and surrounding the base area, often struggles with reliable snow cover, creating operational challenges—improving the reliability of snow conditions on the lower mountain terrain is necessary.

Addressing these issues is integral to the continued viability of the operation and must be a focus of any future upgrading or expansion at Cairngorm.

Planning and Regulation

As Cairngorm management moves forward it will need to collaborate with the regulatory bodies. In addition, a Visitor Management Plan (VMP) governs operations to ensure that visitors have no adverse impacts on the environment and activities should be planned within the constraints of the VMP, as changes are unlikely.

The Highland Council acts as the first line of review in any planning application. The Cairngorms National Park Authority grants and enforces planning permissions in the National Park. Scottish Natural Heritage manages Natura sites and monitors other resort planning. The Scottish Environment Protection Agency ensures the protection of water and other important natural resources.

THE PLAN. OPPORTUNITIES FOR THE FUTURE

Considering the complexity of the current condition, this review explores opportunities for Cairngorm's future. A similar puzzle of interconnected pieces must be considered as part of this exploration, including lift infrastructure, terrain and snowmaking, guest services, and multi-season activities.

When thinking about the future of Cairngorm one must consider this: when visitors are coming to Cairngorm it is within the context of the broader destination. They blur the lines between the town of Aviemore, Glenmore and the ski area. Cairngorm and the larger community should respond in kind, and continually work together to present a unique experience and seamless message about the destination.

The Opportunity – Winter

The proposed winter improvements are designed to enhance the guest experience in a way that is competitive in the marketplace, maximises revenue generation, and is founded in operational efficiency.

Lift Infrastructure

The upgrade concept for lifts would significantly reduce the total number of lifts and add new ones to create a more efficient system with a better guest experience. The new chairlifts should be constructed in a phased approach to allow for evaluation during the process.

The Phase One lift improvements would resolve the out-of-base capacity issue with a 3,200 people per hour (pph) aerial chairlift out of the Coire Cas base area, improving the operational efficiency of three surface lifts, and making the resort attractive to destination skiers.

The Phase Two lift improvement, an additional aerial chairlift of up to 3,000 pph capacity, would link areas of the mountain via a high-speed lift and access race terrain to facilitate races and training.

The Beginner Experience

Infrastructure improvements such as a base area carpet conveyer lift would provide a 'best-in-class' beginner experience, regardless of weather, to attract and maintain the family market.

Snowmaking

A snowmaking system would enable Cairngorm to ensure snow coverage on a significant portion of the runs, up to 30 hectares of terrain making Cairngorm a more enticing to destination skiers.

Guest Services

Expanding and remodelling the Ptarmigan, reopening the Sheiling, and improving the base area facilities would improve operations, capacity, experience, and revenues across the resort.

The Opportunity – Summer

The current summer opportunities are limited. Many visitors seek experiences beyond the funicular, and the base area environment does not encourage guests to explore. The upgrade concept expands on the current offering and is focused on broadening the resort's summertime appeal.

A mountain coaster and zip line tour are planned for Phase One to provide outdoor recreation experiences to a wide range of tourists and interests, while generating revenues. The funicular is unique to Cairngorm and the experience should continue to be enhanced to increase visitors and revenues.

Mountain biking, in Phase Two, is consistent with the 'outdoor adventure' orientation of the Aviemore area visitors/residents and a lift-served system would be accessible to many visitors.

The base area is currently not attractive and needs enhancements which would in turn increase the length of stay, the opportunity for additional food & beverage (F&B) revenue and participation in the other activities.

THE FINANCIALS

The total estimated capital costs of upgrading summer and winter facilities as described above is around £27m. It is suggested this investment is made in a phased approach over the five to ten-year period.

Skier Visits

The proposed improvements to the lift infrastructure and addition of a snowmaking system are intended to increase winter visits to 150,000 consistently, with higher numbers during a peak year. It is assumed that the increase in visits after the initial improvements will, over time, increase Cairngorm's market share.

Phased Investment

It is recommended that investment in the resort is phased. Total capital cost for Phase One would be around £16.5m, for a chairlift, mountain coaster, zipline tour, snowmaking and environmental works. Phase Two would be a further £10.5m, including an additional chairlift, snowmaking and mountain biking.

A STRATEGY FOR THE FUTURE

As one of the largest and most challenging ski areas in Scotland—which sits in the centre of one of the busiest National Parks and adventure tourism destinations in the UK—Cairngorm Mountain has the potential to be a highly successful ski area. However, numerous operational and financial challenges have been experienced in recent years.

The existing mountain infrastructure at Cairngorm offers a skiing experience that is not competitive in today's marketplace: the lifts are slow and uncomfortable to ride, with a low out-of-base capacity that often results in long queues; the terrain, like other ski resorts, is good but has unreliable snow cover, and the guest services are often over-crowded; beginners and families are not adequately catered for and ski area offerings don't align with the market and guest expectations.

Winter operations are also inefficient and require more staff time and financial resources to operate than they should. The lift network is particularly inefficient and there are significant issues with the ski area's out-of-base capacity, especially when considering the non-skier demand on the funicular.

In addition, Cairngorm routinely experiences wind and adverse weather events that force the closure of the access road, funicular, lifts, and terrain, further taxing operational demands and diminishing the guest experience.

The success of winter sports at Cairngorm is on the resort being sustainable all year round. Summer offerings are however quite limited. While the funicular ride and views from the Ptarmigan are spectacular, many visitors to Cairngorm are seeking more. This is compounded by the base area environment, which does not encourage guests to linger or explore.

All the above factors have resulted in the need for this study. A complete and comprehensive analysis of all facilities and operations at Cairngorm Mountain has demonstrated the immense value this critical community asset represents. It has also uncovered significant opportunities for improvement and enhancement that respond to current challenges, build upon the strengths of the mountain, differentiate it from other resorts, and capitalise upon opportunities within Cairngorm's rapidly-changing market. Careful consideration of each potential enhancement has vetted the feasibility of each enhancement and identified the strategic investments with the greatest potential for positive community impact. Over time, these enhancements will work together to ensure a long-term sustainable future for the ski area.

The upgrade concept for Cairngorm addresses all aspects of the current condition, focusing on the investments with the greatest potential impact and creating a more desirable—and competitive—experience for visitors. This will facilitate increased revenues, through the increase in visits and the ability to increase revenue per visit. Enhancements are also focused on creating a more efficient, and thus economically viable operation. This is primarily accomplished through the upgrading of the lift infrastructure from surface to aerial lift technology and the installation of a snowmaking system.

Collectively these upgrades reduce operational expenditures while also significantly improving the on-mountain experience. Summer enhancements are intended to appeal to a broader audience by providing 'something for everyone' as well as complementing the existing recreational offering of the wider Aviemore/Glenmore area. As with the winter concept, these upgrades significantly improve the Cairngorm summer experience as well as the revenue-generating opportunities of the summer business.

All the proposed upgrades at Cairngorm are designed to work together as part of a new and sustainable business model for the ski area with a focus on measured, responsible investments that will lead to balanced growth in the operation. Infrastructure improvements are expected to drive additional skier visits. The installation of a snowmaking system will create a more consistent snowpack and improve the quality of the skiing and riding surfaces. Reliable snow conditions, along with a modern aerial lift system to service the ski terrain will encourage skiers to plan trips to Cairngorm and visit more frequently throughout the season. Our projections estimate the upgrades will increase annual winter visits to 150,000 consistently, with higher numbers during a peak year. Similarly, summer upgrades are expected to drive additional visits to Cairngorm on the order of another 150,000+ visits. This increase in visits, as well as an anticipated increase in average visitor spending, is expected to increase overall revenues. At the same time, labour and other operating expenses are expected to decrease as a result of the new lift scheme and other improvements.

While current conditions at Cairngorm are challenging, there is immense unlocked potential in the mountain which can be unleashed with targeted, strategic investments. With this review in hand, and subject to the availability of funding, Cairngorm is poised to capitalise on this potential to propel it into the next stage of life at the ski area.

**Prepared by Highlands and Islands Enterprise
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