

# **Draft Report in response to the financial crisis facing Cairngorm**

## **Part 1 Our Concerns about the funicular**

### **1) The structural engineering issues and the likely costs of the repairs.**

- a. HIE has never explained the reason the funicular failed, why the support pillars rotated on their bases, and the what the repair work is designed to fix (see [https://www.youtube.com/watch?v=8\\_GaexpMHO8](https://www.youtube.com/watch?v=8_GaexpMHO8) for an excellent video explaining the repair work). The legal case being conducted by HIE against the original designers and construction company, Crudens and Morrisons, however suggests that the explanation lies in some fundamental design flaws. This is reinforced by other facts, such as the funicular has never operated at its specified speed and has been notorious for its bumpy ride.
- b. We would like to highlight two possible explanations. The first concerns ground issues. Very few of the funicular piers are founded on bedrock, much of which has been found to be highly weathered, almost all of the piers are ‘floating’ on glacial till and weathered granite. This material is porous and consequently contains considerable amounts of groundwater, including “at least 12 strong flowing springs” according to Morrison’s Health and Safety file compiled during the original construction. Under gravity all this ‘loose’ material and water will slowly move downhill, eroding material around the foundations and contributing to the observed pier ‘rotation’. If that is the case, pumping more concrete in will only work for a time. The second explanation relates to fundamental engineering design flaws. HIE’s decision to use concrete rather than steel support pillars to save costs means vibrations not absorbed. Added to that are the curves. Most funiculars elsewhere in the world are on metal supports and straight. The pressure and vibration coupled with insecure foundations explains what has gone wrong.
- c. These problems may have been compounded by a lack of maintenance, e.g. rails and wheels are meant to be ground to remove corrugations and this has not happened (we have obtained copies of what maintenance has been done through FOI requests).
- d. HIE appears to have conducted only limited ground investigations before the original construction and the decision to undertake repairs (COWI, on its own initiative, undertook a few as part of its report on the state of the funicular). We note now that having strengthened the foundations, those around the mid-station are having further major work done on them, an indication that the original specification for the repairs was unfit for purpose.
- e. We believe these issues have contributed to the escalating costs of the repairs which the Herald reported had increased from “£16m to £21m are feared to be going even higher” (HIE’s first estimate for the repairs was £10m). We are not in a position to comment further on these repair costs because HIE has redacted almost all financial information from the paper on the revised business case which its Board approved in August 2021, which we obtained after an FOI request. Moreover, the briefing provided to the Minister and quoted by the Herald has not yet been made public [Note - we have since secured a copy]. HIE’s claims that the huge increase in repair costs is attributable to the weather, Covid and building product inflation is not credible. More

importantly, however, to the extent we are right about the fundamental design flaws, there are serious questions about how long the repairs will last in which case the projected potential subsidy of £73.09m required over the next 30 years, as approved in the original business case, will be a serious underestimate.

## 2) The wider issues with the funicular

- a. As far as we are aware all funiculars across Europe require public subsidy. In some cases, e.g. where funiculars link villages in the mountains, this is justified as a form of public transport subsidy (like subsidising buses) but many funiculars are now being closed down as financially unviable, including Ellmau on which the original idea for the Cairn Gorm funicular was modelled.
- b. The situation is even more challenging at Cairn Gorm than most European funiculars because of other significant design flaws: the tunnel that blocks in snow (it is not uncommon in particular circumstances for funiculars in the Alps to run underground); the mid-station not being equidistant resulting in need for two stops; the unnecessary steps which while not a problem for tourists and a problem for the coach market; the bottom station being situated in a different building to the Day Lodge.
- c. The funicular was never needed for skiers (the justification given was to access the Ptarmigan bowl in high winds which are not good for skiing) and is a poor form of uplift for skiers compared to lifts and gondolas. Skier days: 2004 - 2008 inclusive, averaged 53928, 2009 - 2013 incl, ave. 102,903; 2014 - 2018 incl. ave 60,258.
- d. The funicular was also justified as a means of generating income to keep the business going in summer but the problem with that was and is that visitors do not want to take a journey up into the clag (even in summer the Ptarmigan is in cloud one day in three). Even if there hadn't been a legal agreement restricting access onto the fragile plateau, the weather etc meant this was the wrong place for the general tourist.
- e. HIE's masterplan claims that "once back in service the Funicular is expected to attract thousands of visitors each year generating benefits for the wider economy in Badenoch and Strathspey where the tourism and Hospitality sectors have been dealt a huge blow by Covid-19". The **empirical** evidence does not support this. For example, the funicular user numbers have been declining almost since the funicular first went into service. In its first 5 years of use the average passenger numbers were 171,406 [and 58,505 skier days] and in the last 5 years of use, prior to its failure, the passenger numbers were 130,990 [and 60,257 skier days] That's a reduction of almost 25% [23.58%] in passenger numbers while the local tourist economy has been growing substantially.
- f. The summer visitors are attracted to the Cairngorm Mountains as a whole (and the National Park) NOT HIE's Cairngorm Mountain business! While visitors to the funicular have dropped, according to Cairngorm National Park Authority figures, there was a 4% increase in visitors to the national park between 2009 and 2016.
- g. As a result of all these factors, the funicular has always been a financial liability rather than an income generator and this has been obvious to everyone except HIE, e.g. even Natural Retreats refused to take it on when they won the contract to manage Cairn Gorm.

## 3) The Business Case, including the revised business case for repairing the funicular

- a. There is significant additional expenditure envisaged by HIE linked to their 'masterplan', some of which was included in the business case and some not (e.g. the

£691k for the family friendly mountain bike facility which approved planning approval in May 2022). On top of which there are other unbudgeted costs attributed to other design flaws and a lack of maintenance e.g. the repairs required to prevent water ingress to the Ptarmigan (built on springs) referred to in the August 2021 HIE Board paper.

- b. Clearly the costs in the original business case for repairs, though committing HIE to a possible £73.09m subsidy over 30 years, were as inaccurate as those presented in the original business case to build it (as documented by Audit Scotland in 2009 <https://www.audit-scotland.gov.uk/publications/review-of-cairngorm-funicular-railway>). We welcome the concerns that the new responsible Minister, Ivan McKee, has expressed publicly about this and appreciate that, because most of the financial information is yet to be released to the public, he will have a better understanding of the projected figures than we do.
- c. What we don't think will have been properly factored in to the ongoing running costs are the likely repair and maintenance costs given the fundamental design flaws we have described. Without scaremongering, if the pillars start tilting again in three to five years' time, it will be back to square one and large amounts of public money will have been spent for nothing. That is why we believe the Scottish Government should reconsider the decision to continue with the repairs pending proper investigations as to the risks.
- d. In our view, however, both HIE's original and revised business case for the repairs are also based on some fundamental flaws/questionable assumptions:
  - a.
    1. That the £2.9m grant, part of the ERDF [European Regional Development Fund] application from the EU, would have to be repaid. It's now 20 years later, we have left the EU and as far as we understand the EU never enforced the condition in the grant that required the Shielling to be upgraded.
    2. The costs of alternatives. We will come back to this but the examples of uplift HIE included for comparative purposes (a funitel which runs on a dual cable) appear to have been the most expensive possible and estimates for these seem to have been inflated distorting the whole business case.
    3. The cost of removal. HIE appears to have chosen the most expensive option, i.e. complete removal, when it would be much cheaper to remove the superstructure and top of the concrete as they did with the Coire na Ciste chairlift for a cost of under £500k (contrary to the report by head of infrastructure Keith Bryers at that time on removal of concrete foundations). If the concrete does have to be removed, the expense of doing so now will have increased significantly because of all the concrete pumped into the ground. The fact is that the funicular won't last for ever and at some time will have to be removed.
    4. That HIE would be able to offset some of the costs of repairs through successfully suing Crudens and Morrisons (now part of Galliford Try). We very much doubt this case will go anywhere. The consulting engineers, Crudens, are no longer in business. Galliford Try are likely to argue that the company at the time were simply following instructions issued by HIE. We have set out the history behind the original decision to build the funicular, which was taken by the Lib/Lab government but also illustrates how HIE has manipulated

government and other organisations in Appendix 1 [This is the one section of the report which we are updating and we hope to publish separately due to its length].

## Part II The bigger picture

### 4) What is needed at Cairn Gorm

- a. The importance of Cairn Gorm to the local Strathspey economy is in winter, not summer. The local economy has been booming in summer without the funicular (statistics attached) and there is no need for the other summer “attractions” that HIE has been developing since it has been shut, such as the tube slides and family mountain biking infrastructure. All these facilities do is compete with other local businesses and unsuccessfully because they in the wrong place and exposed to poor weather.
- b. The importance of winter income was confirmed when Natural Assets Investments Limited decided to change CML [Cairngorm Mountain Ltd]’s financial year from the fiscal year to the calendar year. CML posted a shortened accounting period covering April to Dec 2015, basically a unique insight to the financial reality of CML in summer with the funicular operational. Over the ‘summer’ trading period in 2015 CML posted a loss of £1.248 million! Janette Janson, then General Manager of CML under Natural Retreats, affirmed what many skiers had long thought, “**...our winter revenue which is crucial to sustain the operation during the summer months.**”
- c. The central purpose of the Cairn Gorm mountain business therefore should be to keep snowsports going and despite global warming, Met Office modelling predicts there should be sufficient snow to support the continuation of snowsports given the right infrastructure and management, including proper use of snow making machines. The challenge is to make the most of snow when it is there but the funicular because of its limited capacity and design flaws cannot do this. The funicular was originally partly justified as providing a safe means of access, including descent from the Ptarmigan bowl, compared to chairlifts in high winds but modern lifts with protective “lids” and double cables can now operate in much higher winds and can transport more people more quickly.
- d. However, uplift infrastructure is also more financially viable/profitable when not just used for snow sports. Part of the idea behind the funicular, that uplift should allow for summer as well as winter use was right, the problem was it was aimed at the wrong market. We believe the solution is to develop a lift system that would carry snow sports in winter and mountain bikers in summer. This is now happening all over Europe and is well established at Glen Coe and Aonach Mor.
- e. We recognise and strongly support the need to protect the natural environment at Cairn Gorm which has been advocated all the way up to the International Union for the Conservation of Nature which has passed resolutions at two general assemblies [these were included in appendix 1]. There is a clear requirement to keep mountain bikers off the upper slopes of Cairn Gorm but the solution to this is for lifts to have mid-stations or stop half way and mountain bike trails to be constructed on the less sensitive ground. If those trails then descended to Glenmore that would be very attractive to mountain bikers and attract the sort of people who like the challenge of the rain and wind.
- f. For that to happen, however, we believe the land needs to be under single ownership and single management. Since HIDB {Highlands and Islands Development Board]

wrested the Cairngorm Estate from the Forestry Commission in 1971 there has been a lack of joined up management in Glenmore and Cairngorm. It was later revealed that the Forestry Commission withdrew from negotiations to transfer back ownership of the estate in 2006, instigated by HIE following the completion of the funicular, because of concerns about HIE's lack of transparency about the financial implications and the liabilities that might transfer to them.

- g. While HIE's proposed family mountain biking facility with magic carpets (cost £691k) does provide an example of dual use of uplift it is misconceived and aimed at the wrong market. A beginners' ski area is for people who cannot ski but a family bike facility is for people who can already ride and it is unclear why they would use a magic carpet to ascend a gentle slope that they could cycle up more quickly. Any facility for beginners would be far better located in the shelter of the woods down in Glen More. The venture is unlikely to be successful.

## **5) HIE's management of the Cairngorm Mountain business**

- a. There has been one serious financial disaster after another at Cairn Gorm under HIE, all documented by Audit Scotland: the decision to construct the funicular, the decision to outsource to Nature Retreats, the initial decision to repair the funicular. We will not repeat that history here but we have also documented other smaller examples of HIE has wasted money at Cairn Gorm over the last seven years on parkswatchscotland.
- b. One of the fundamental issues here is that HIE both finances the business and operates it as its own. As a result, Cairngorm Mountain has never had to operate like a real business – HIE has bailed out every mistake – and even after outsourcing the operation to Natural Retreats HIE paid for almost all investment in infrastructure. The other snow sports operators in Scotland have achieved a lot more with far less and that is illustrated by their market share
- c. Moreover, the annual funds given by HIE to keep the Cairngorm Mountain business going (capital and running costs support) form a very high percentage of HIE's total distribution throughout the Highlands & Islands and drains money from elsewhere
- d. The history shows that HIE unfortunately cannot be trusted, whether this is what it says about the finances or the evidence it provides to support investment decisions. Other organisations and people have recognised this, for example FLS in 2006 when they withdrew from negotiations to take back ownership of the Cairngorm Estate and former CEO, Bob Kinnaird, who said in October 2006 "But going back to the underpinning issue of mistrust –You don't build a successful business on mistrust"
- e. There are many examples showing how HIE lacks the expertise to provide snow sport facilities. While snow sports operators across the world have reduced the number of lifts they operate they have generally increased capacity and the total length of pistes. This has helped increase income while reducing costs. On Cairngorm HIE has reduced lifts, without replacing them with better ones (the SE Group report they commissioned was about this but has not been implemented), and reduced the ski area. HIE have never dealt with the access road, which when blocked by snow results means the business cannot make any money. (This is an issue that would have been addressed if a gondola from Glenmore had been installed instead of the funicular and as was proposed by various NGOs at the time). Snow cannons have been bought but not used, [Correction.The snow cannon were used in the 20/21 season but only two of them in the 21/22 season], and instead of using snow making capacity to keep pistes going, which is what attracts visitors and income, they now create a snow patch low

- down with a snow factory (the funding for the latter was concealed in CML's accounts by HIE increasing the share capital of the business).
- f. There is also a history of missed opportunities: the Coire na Ciste group (of which some of the authors were members) suggested a hydro scheme to address power issues and bring in income but after two reports stating this was feasible HIE commissioned a report that said it wasn't; various other groups have approached HIE with ideas or proposals to use facilities and have been rebuffed; HIE selected Natural Retreats, a cowboy organisation with no track record in preference to a local ski school when it outsourced the mountain (justified by dodgy procurement criteria designed to exclude small organisations)
  - g. And there has been a failure to work in partnership even with government agencies: the frustration of the CNPA at the stream of planning applications that were submitted despite the lack of a masterplan (there is still not a proper plan); the failure to meet commitments that were agreed as part of the plan for Cairngorm and Glenmore (e.g. on improving public transport); the way HIE have tried to side-line the Aviemore and Glenmore Community Trust which was set up with a view to making a bid for Cairn Gorm.
  - h. Finally there has been a longstanding disregard for customers which has always rebounded on HIE: the way they have treated season ticket holders (result people don't buy season tickets); the fixed entry times and high charges for the new campervan facility in Coire na Ciste (cost £1 at weekends) which was hardly used until HIE was forced to change through publicity; the appalling state of the car park despite the voluntary charges levied to fix this which were never spent – now they are compulsory, people go and park down the roadside; the early closing of the café facilities so that people coming off the hill in the late afternoon go elsewhere. And so it goes on.
  - i. In short, the history supports our argument that HIE has never been fit to own or operate Cairn Gorm

## **Part III Our proposed solutions**

### **6) Ownership and management**

- a. Transfer the ownership of the Cairn Gorm estate back to Forestry and Land Scotland. FLS have the engineering (e.g. they have installed hydro schemes) and conservation expertise that HIE lacks and would be well placed to manage the land both within the ski area and outside of it.
- b. With FLS owning the land below the Cairn Gorm Estate this would also allow a far more integrated approach to land-management, whether this concerns native pinewood expansion or the creation of infrastructure for informal outdoor recreation (e.g. bike tracks down into Glen More)
- c. FLS, however, no longer appear to have the capacity to manage more commercial recreational enterprises, as evidenced by their recent decision to outsource again management of the Glenmore campsite and are unlikely to want to take on management of the visitor business.
- d. We therefore believe that the Cairngorm Mountain business would best be managed by the Aviemore and Glenmore Community Trust, which includes a number of "can do" business people on its Board, is well linked into the local community, has set up a new ice rink in Aviemore with very little money and has applied to take on the lease for the Glenmore campsite.

- e. FLS has a good record of working with such organisations including environmental groups. in the glen alongside FLS managing the land would assist with joined up management and would, we believe be supported by the National Park Authority.

## **7) Towards an alternative business case and masterplan for Cairn Gorm**

- a. We recognise for our proposals to be progressed, there needs to be an alternative business case and masterplan for Cairn Gorm. We have links with the AGCT and would be happy to approach them with a view to developing an outline business case and new masterplan for the Ministers consideration but would like to make the following points meantime:
- b. Both HIE's business case for Cairn Gorm, which incorporates a requirement for annual subsidy, and masterplan are centred on the funicular. Halt the funicular and you will remove much of the requirement for ongoing government subsidy.
- c. The trick/requirement is to start small, as the other ski businesses in Scotland have done, and adapt as required. That might mean one new lift and mountain bike track to start with. It almost certainly means reducing the complement of full-time staff but, with several long-standing staff due to retire, there is an opportunity to do this.
- d. We have done some work on the costs of putting in new lifts and confirmed this would be cheaper than repairing the funicular and would have far less environmental impact as lifts need fewer supports. Examples are Doppelmayr who for 2020 gave an indicative quote for 4-person chairlift from the car park to top of mountain that could be upgraded to gondolas 12m euros; Leitner - Poma products are generally cheaper (for example they built a top and bottom station, including office block & escalators, and gondola roughly the length of the Cairn Gorm chairlifts end to end for 20m euros); or a reconditioned lift from Chamonix. A community organisation would be much freer than HIE to purchase second hand lifts and there are lots of opportunities as uplift on the continent is being constantly upgraded
- e. There are opportunities for alternative revenue given a little imagination: facilities need to be customer focussed and regarded as good value; given the price of power, a hydro scheme might still make sense; some of the buildings at Cairn Gorm lie abandoned despite – as we have found out through FOIs - organisations approaching HIE/CMSL suggesting alternative uses.
- f. There would however need to be some need for grant support and there is a challenge in ensuring that HIE will look objectively and fairly on capital support for future business developments on Cairngorm Mountain.