



# New Zealand



2026

**OLYMPIC WINTER GAMES NEW ZEALAND 2026**  
**Pre-Feasibility Report**  
6 May 2015  
FINAL



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# Preface

## About

This report has been prepared by Bruce McGechan, Managing Director of M&P, a Queenstown based marketing consultancy and advertising agency.

M&P was established in 2014 to provide strategic marketing advice, together with creative execution, to Queenstown and Central Otago businesses.

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## Authorship

Bruce McGechan has had marketing manager roles for Destination Queenstown, Cardrona Ski Resort, Heineken, Vodafone, and Fletcher Building. He has chaired the Wanaka Winter Marketing Group (now rolled into Lake Wanaka Tourism), has a business masters degree, and is a published business author.

Bruce was involved in the first ever Snowboard FIS World Cup in New Zealand, a halfpipe event at Cardrona in 2007, supported the homologation of a new Super G ski race course at Cardrona, and involved at the very beginning of the Winter Games NZ. He has always wanted to investigate whether New Zealand could host the pinnacle of world winter sports—the Olympic Winter Games.

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## Executive Summary

This Pre-Feasibility report analyses whether New Zealand could host an Olympic Winter Games in 2026, and calculates the economic benefits and costs. It estimates the net economic value of hosting the Olympic Winter Games at NZ\$4.9 billion: \$5.6 billion of benefits, and \$595 million of NZ Government costs.

The report recommends the Olympics is held in Auckland and Queenstown, although Melbourne, Auckland and Queenstown is also a possibility. This is based on assumed International Olympic Committee (IOC) accommodation requirements, and the population needed to support multi-purpose venues. The cities would build Olympic Villages, and media and broadcast centres. Queenstown already has world-class ski and snowboard venues and the highest international level of ski and snowboard competitions (FIS World Cup). The sliding and ski jump venues would be hosted in an existing third country facility.

The vision is,

*The Olympic Winter Games as it used to be. A celebration of sport, held in the world's friendliest villages, by the world's youngest country, in the world's purest environment—Auckland & Queenstown 2026.*

There are three benefits to holding the Olympic Winter Games: economic development, sport development and national pride. This pre-feasibility report focuses exclusively on economic development, and leaves sports and political representatives to discuss sport development and national pride.

The economic benefits are mainly tourism based. Firstly, the image of classic New Zealand alpine, lake, sea and city scenery shown to the 2 billion TV viewership of the games. This results in an incremental 4.5% increase in tourism visitation and expenditure for each of years 2027-2031. Secondly, the US\$880 million (NZ\$1.1 billion) the IOC contributes to running the Olympics. Thirdly, increasing New Zealand's share of the Australian skier market from 7.5% to 25%, due to the credibility of the hosting the Olympic Winter Games coupled with the possible severe effects of climate change on Australian ski resorts.

The benefits include \$454 million of extra international visitor expenditure and \$394 million of Australian skier expenditure in each of the years 2027-2031. The costs include \$500 million spent on five ice rink stadia in Auckland.

Traditionally it would be regarded as impossible for New Zealand to host the winter olympics due to cost—the most notorious example being Sochi 2014. However, a review of hosting costs, "Olympic Agenda 2020" has led to substantially more

flexibility in IOC requirements enabling a small country to host the Olympics. To quote Thomas Bach in New Zealand on 5<sup>th</sup> May 2015,

*We think you cannot reserve the right to host the Olympic games just to 20 countries in the world.*

This report is only a preliminary or “Pre-Feasibility” report. It recommends the New Zealand Olympic Committee (NZOC) board asks the New Zealand Government to conduct a full feasibility study in 2015.

## The Concept

Auckland would build the main Olympic Village with a smaller “Mountain” Olympic Village being built in Queenstown. Both of these Villages would be developed by the private sector and sold off as residential units post the Olympics.

Auckland would build five ice rink venues (permanent, demountable, or possibly temporary ice rinks within existing stadia) for the Ice Hockey (IOC requires two venues), Figure Skating / Short Track skating, Speed Skating, and Curling events, as well as host the Opening and Closing ceremonies. The sliding venue (bobsleigh /luge/skeleton) and ski jump venue would be hosted by a third country (e.g. Nagano, Japan). The other events would be held at preexisting ski and snowboard venues at Queenstown and Wanaka ski resorts.

Auckland and Queenstown would build Press and Broadcast centres to host the large numbers of media. Possibly by extending conference facilities with temporary structures.

The IOC would need to approve the airlink as the transport connection between Auckland and Queenstown because this is usually a multi-lane highway or railway. Queenstown would need to build gondolas to the ski resorts (private funding), at least have a solid traffic management plan during the Olympics (and preferably improve transport infrastructure), and build a new hospital to meet IOC infrastructure requirements.

This report proposes New Zealand celebrates it's smallness and takes the games back to its roots. The proposition to the IOC is,

*The Olympic Winter Games as it used to be. A celebration of sport, held in the world's friendliest villages, by the world's youngest country, in the world's purest environment—Auckland & Queenstown 2026.*

At the heart of this concept is a comparatively smaller scale event held by an honest, decent and democratic nation. This is a direct reference to the issues that the IOC faces as well as natural advantage New Zealand has over larger (and undemocratic) countries.

## The Benefits

There are three benefits to holding the Olympic Winter Games: economic development, sport development and national pride. This pre-feasibility report focuses exclusively on economic development, and leaves sports and political representatives to discuss sport development and national pride respectively.

The industry that will benefit the most is tourism and this report focuses on this industry, however there are also business development opportunities for attracting investment and construction that this report does not cover. Nor does this report include economic multiplier effects or the number of jobs created. These benefits are left for an economic analysis in a full feasibility study.

### Economic Development and Tourism

The Olympic Winter Games in Sochi 2014 had 2.06 billion TV viewers, 89% of them from our tourism target markets of Australia, Europe, North America and Asia. There was 54,367 TV Broadcast hours across 412 TV channels (Sochi 2014 IOC Marketing).

There are few “super-events” that get this sort of TV exposure. Once every three decades, we might expect to hold a Rugby World Cup, the America’s Cup and the Cricket World Cup. To this we should add the Olympic Winter Games.

The winter olympics lends itself to showing New Zealand at its best by broadcasting our mountain and lake scenery as a natural part of the mountain events. The ice rink venue events will be shot in the City of Sails, adding city and seascapes to this broadcast to billions of potential tourists.

The geographical markets which find skiing appealing, are Australia, China, USA, UK, Japan, Germany, Korea and Canada—which also form our top eight visitor countries (International Visitors Arrivals, Stats NZ) and Tourism NZ’s target markets.

During the winter olympics, 100,000 people will be accredited and the IOC will directly spend US\$880 million on the Olympics itself (2022 Working Group Report, IOC statement on Oslo 2022). On top of this will be the spectators who choose to visit during the Olympics to watch the games.

Very importantly, the games are in winter, a shoulder season for most of the New Zealand tourism industry. Boosting visitation during winter will help address major productivity issues, and therefore profitability and wage growth, in the tourism industry (Tourism 2025).

## Benefit and Cost Financial Analysis

The Olympic Winter Games is expected to bring NZ\$4.9 billion of net economic value and 2 million visitors in 2026-2031.

This report uses three methods to estimate visitor numbers (see Appendix II). The “Incremental Growth” method measures the additional growth of international visitors and their expenditure. It splits international general tourism and Australian ski holiday visitation. In the case of international growth the “Hobbit effect” is used as a proxy. In essence a report (NZIER Western Market Growth report) found that non-economic “NZ specific factors”, presumed to be Hobbit-based Tourism NZ marketing, increased growth by 4.5%.

The Australian skier growth assumes a combination of possible climate change issues with Australian ski resorts (see Appendix I), coupled with the Olympics addressing the credibility issues of Queenstown/Wanaka ski resorts. This increases New Zealand market share of the Australian skier market from 7.5% to 25%.

These two sources of visitor growth are about equal. On average this equates to 377,000 more international visitors per annum and an additional \$848 million of expenditure per annum. For the year of the Olympics and the five years after the Olympics (2027-2031), this equates to 1.98 million incremental visitors spending \$5.6 billion.

A financial model has been created to test the sensitivity of “Incremental Growth” variables. The most sensitive variables are the number of years that see incremental growth and the Australian ski market size. A full feasibility study needs to include economic analysis that delves further into such variables, something beyond the scope of this pre-feasibility report.

The benefits of hosting the Olympic Winter Games are massive, but the costs are notorious.

## Hosting Costs—Now and Then

The International Olympic Committee (IOC) faced a crisis due to Oslo’s withdrawal on 1st October 2014 from bidding for the Olympic Winter Games 2022 (GamesBids). It followed withdrawals from Poland, Ukraine, Sweden and Germany, and left the IOC with two controversial hosting options for the 2022 Olympic Winter Games—Beijing, China, and Almaty, Kazakhstan. At the heart of the withdrawals was probably the public’s perception of cost of the winter olympics driven by the US\$51 billion price tag of the Sochi Olympics—now all Olympic bids have been tarred with the same Sochi brush.

Alas, there is confusion between infrastructure costs and operating costs. The costs of running the games, the “Organising Committee for the Olympic Games (OCOG) budget”, breaks even or makes a large profit. This is greatly assisted by the IOC contribution—US\$880 million for the 2022 applicant cities (IOC statement on Oslo 2022).

On the other hand the infrastructure cost, the “Capital budget”, is where headlines are made. The Sochi 2014 infrastructure cost was US\$6.5 billion for the games itself and US\$44 billion for Sochi infrastructural projects such as roads, railroads and power plants, together totalling US\$51 billion (2014 Winter Olympics Financing).

Other winter olympics have been much less than this, for example Vancouver 2010 was US\$930 million “for the construction and renovation of competition venues, Olympic Villages and road improvements, as well as a post-Games operating endowment fund for three venues” (IOC Report on Vancouver).

### Olympic Agenda 2020

The IOC has been clearly aware of this groundswell of resentment and the new president, Thomas Bach, initiated a review, “Olympic Agenda 2020”, in September 2013 which reported back on 8-9 December 2014. All “20+20” recommendations were approved by the IOC members (Olympic Agenda 2020, 20+20 Recommendations).

For the purposes of this report the key recommendations and relevant detail are:

#### **Recommendation 1. Shape the bidding process as an invitation**

*Introduce a new philosophy: the IOC to invite potential candidate cities to present an Olympic project that best matches their sports, economic, social and environmental longterm planning needs.*

*1. The IOC to introduce an assistance phase during which cities considering a bid will be advised by the IOC about bid procedures, core Games requirements and how previous cities have ensured positive bid and Games legacies.*

2. *The IOC to actively promote the maximum use of existing facilities and the use of temporary and demountable venues.*

3. *The IOC to allow, for the Olympic Games, the organisation of preliminary competitions outside the host city or, in exceptional cases, outside the host country, notably for reasons of sustainability.*

4. *The IOC to allow, for the Olympic Games, the organisation of entire sports or disciplines outside the host city or, in exceptional cases, outside the host country notably for reasons of geography and sustainability.*

...

### **Recommendation 2. Evaluate bid cities by assessing key opportunities and risks**

*The report of the Evaluation Commission to present a more explicit risk and opportunity assessment with a strong focus on sustainability and legacy.*

...

2. *The IOC to consider as positive aspects for a bid: the maximum use of existing facilities and the use of temporary and demountable venues where no long-term venue legacy need exists or can be justified.*

...

4. *The IOC to clarify the elements for the two different budgets related to the organisation of the Olympic Games: long-term investment in infrastructure and return on such investment on the one hand, and the operational budget on the other hand. Furthermore, the IOC contribution to the Games to be further communicated and promoted.*

...

### **Recommendation 3. Reduce the cost of bidding**

*The IOC to further assist Candidate Cities and reduce the cost of bidding.*

1. *The Candidate Cities to be allowed to attend and make presentations only to:*

- *IOC members during the Candidate City Briefing,*
- *ASOIF/AIOWF respectively. This presentation may be combined with the Candidate City Briefing,*
- *ANOC General Assembly preceding the vote,*
- *IOC Session at which the host city is elected.*

2. *The IOC to bear the following costs:*

- *costs incurred in relation to the visit of the IOC Evaluation Commission,*
- *travel and accommodation for six accredited delegates for the Candidate City Briefing to IOC Members in Lausanne,*
- *travel and accommodation for six accredited delegates for the Candidate City briefing to the ASOIF/AIOWF respectively,*
- *travel and accommodation for six accredited delegates for the ANOC General Assembly,*
- *travel and accommodation for 12 accredited delegates for the IOC Session at which the host city is elected.*

3. *Publication of the Candidature File to be in electronic format only.*

...

**Recommendation 4. Include sustainability in all aspects of the Olympic Games**  
*The IOC to take a more proactive position and leadership role with regard to sustainability and ensure that it is included in all aspects of the planning and staging of the Olympic Games.*

*1. Develop a sustainability strategy to enable potential and actual Olympic Games organisers to integrate and implement sustainability measures that encompass economic, social and environmental spheres in all stages of their project*

...

**Recommendation 12. Reduce the cost and reinforce the flexibility of Olympic Games management**

*Reduce the cost and reinforce the flexibility of Olympic Games management*

*1. The IOC to establish a transparent management procedure for any change of requirements, regardless of its initiator, in order to reduce costs.*

*2. The IOC with the stakeholders to systematically review the level of services, Games preparation and delivery, with a view to containing cost and complexity. Regular proposals will be made in this respect.*

*3. The IOC to consider the provision of turnkey solutions for OCOGs in areas which require highly specific Olympic expertise.*

(Olympic Agenda 2020, 20+20 Recommendations).

Clearly the bidding process and hosting requirements have changed. This allows New Zealand to come up with a hosting proposal that is smaller than any proposal seen for decades.

At a media conference held in Auckland (5 May 2015), in response to a journalist's question, "What's changed? Because the popular opinion I guess before the Olympic agenda 2020 came out was that NZ was too small to host an Olympic games. What's changed? Is it something that you have seen from NZ or is it the IOC's view of what the host country needs to?"

Bach replied, "the IOC has changed" (Thomas Bach).

That change is listed in the recommendations above.

**IOC President on New Zealand hosting an Olympic Games**

At a media conference held in Auckland on 5 May 2015, Thomas Bach essentially explained the 20+20 recommendations in regards to a New Zealand bid.

*The Rugby World Cup you hosted very successfully. NZ is a great sports country. And you do not only have successful athletes, you are somehow incorporating the*

*Olympic spirit, the passion for sport. So I think it would be very well appreciated if NZ would look into this, hosting the Olympic games, one day. And there are, as you mentioned, I think the Olympic agenda is opening doors for other countries than the traditional host countries. And this was in fact one of the purposes of the Olympic agenda 2020, because we think you cannot reserve the right to host the Olympic games just to 20 countries in the world. We should open up the Olympic movement, and the Olympic games are universal, and therefore we should really open the doors and the windows. And the change of mentality, we started there that we are already at the 2024 bidding procedure now, but in the past we were putting conditions. We said if you want to organize games, you have to do this and this and this, and if you can do this you are welcome but if you cannot we are very sorry you cannot come. What we are doing now is we are asking potential host countries how do you think that Olympic games would fit best into your long term planning with regards to sports, socially, financially, ecologically, and then give us your idea about Olympic games and then we discuss together whether we can make it happen. There can always be circumstances where we would say 'this is maybe a little bit too ambitious, there you cannot host enough visitors, and so on', there must be minimum requirements but for the rest we are very open and there I think that not only me but many IOC members would appreciate very much if NZ would look into this possibility.*

*...this is exactly one of the points where we are the most flexible, because the new approach is about legacy. We do not want to see stadiums being built with capacities which are of no use afterwards. So what we are suggesting there in the Olympic agenda 2020 is either to reduce the capacity, I think for athletes anyway the most important is not the number of spectators. The most important is the stadium is packed with fans. Every athlete prefers a 5000 seater packed with 5500, than having 10,000 spectators in a 20,000 spectator stadium. So there its great flexibility. Either with temporary stands, or reducing the size. So in this respect we are really very very flexible.*

*...this is why I said to you no, you should ever wait, the opportunities the Olympic agenda is offering. I don't know the result of this, this is up to NZ to decide. I am not here to give lessons, I am here to listen. But, it has to be a decision coming from NZ. The only offer I can make to NZ is that if NZ is ready to look into it, that we are ready, already in the very early stage, so before making the decision, to put all our information at the service of NZ to have a knowledge transfer; what it means to organize an Olympic games, what are the minimum requirements, where are we flexible, how high the financial contribution of the IOC may be, what other resources could be used for financing, all this would be open and transparent to make this evaluation. And then its up to you to say, we can and we want, or we can but we don't want, or cannot but we would want, then all the options are open.*

*...the IOC has changed. Very clearly. This is what I said, rather than putting out conditions for hosting now we are issuing invitation to host, and we have introduced a new phase in the candidature procedure which is underway already now for 2024 so we are really happy that we cannot only speak. If you allow me to mention this on the side. We do not only have the Olympic agenda 2020 as a declaration, we are already very well advanced in the implementation. For instance all the measures with regard to good governance, transparency, and integrity, as far as the IOC is concerned and our good governance is concerned, we have already implemented. We have already implemented the changes to the candidature procedure starting from 15 January, so the approval was I think 5 December, and then 15 January implementation had already started, with a new what we are calling 'invitation phase' where we are telling all the countries who are thinking about hosting, come, come and see us and we are transferring all our knowledge and expertise, so that you can make a proper decision. And you can tell us what is your perception of the Olympic games, how do you want to promote the Olympic spirit, what is your focus there. This is very much different from the other approach. Yes, the IOC has changed there. And this also allows maybe countries like NZ to change its thinking and to say, Okay let's have a look. (Thomas Bach)*

Okay, let's have a look.

## **New Zealand 2026 Cost Estimates**

A rough estimate of costs (see Appendix II for details) have been calculated based off the Auckland-Queenstown 2026 concept. Little information is available about the costs of these structures and no information about the cost in New Zealand. Though the estimated Auckland-Queenstown 2026 cost turns out to be similar to the reported Vancouver 2010 cost for venues and infrastructure (IOC Report on Vancouver).

The five ice rinks venues that would be constructed in Auckland is the major cost, totalling NZ\$500 million. The Sliding Centre (e.g. luge) and the Ski Jump venue would be held elsewhere (e.g. Nagano, Japan). The media centres may cost \$55 million to extend existing Auckland buildings and \$10 million for Queenstown buildings. These are assumed to be paid for by the NZ Government. The Olympic Villages are assumed to be constructed by the private sector. The private sector costs have been excluded from the net economic value calculations because they are essentially housing, something in high demand in Auckland and Queenstown. The Auckland Village would cost \$175 million (3000 beds), the Queenstown Village \$72 million (1250 beds) with an additional village possibly needed for "endurance sports" at race altitude costing \$16 million (250 beds). See Appendix II.

A full feasibility study needs to include formal construction estimates of these costs, something beyond the scope of this pre-feasibility study.

## The Major Challenges

### Multi-Purpose (Ice Rink) Venues

The ice rinks would be created in new multi-purpose stadia a little like the Vector Arena (which may actually be suitable in its own right). At the end of the Olympics they would revert to normal indoor venues available for concerts and sports events.

Queenstown currently has one ice rink venue but it would probably need to be rebuilt to include seating and to extend the size of the ice rink. With a population of 28,000 the QLDC struggles to fund and service large venues as seen by the current Convention Centre debate. The visitor numbers of more than 2 million suggest that one large ice rink could have some commercial viability and perhaps a private company would be willing to build this, however, this report assumes even this is not commercially viable.

Auckland on the other hand with a population of 1,420,000 certainly is able to support a number of multi-purpose venues commercially and via its much larger ratepayer base. Five may be too many, in which case two would be demountable and be moved to other large cities post games. Alternatively existing stadia could be upgraded and temporary ice rinks installed. Mt Eden Park would probably hold the Opening and Closing Ceremonies.

### Hotel Accommodation

The pre Agenda 2020 report rules state that accommodation requirement is 24,000 2-5 star rooms. Queenstown has 4403 and Wanaka has 818 hotel and motel rooms. Auckland has 12,774, Canterbury has 5237 hotel and motel rooms (CAM Jul-14, Daily capacity, including apartments excluding backpackers and holiday parks).

Although we do not meet that requirement now, visitation growth suggests a combination of cities could combine to offer 24,000 rooms by 2025. International visitation is expected to grow by 4% (NZIER, 2013-2020, CAGR). Assuming the same rate for domestic tourism growth and that accommodation providers actually build extra capacity to service this growth then Queenstown would grow to 7340 rooms by 2026 and Auckland would grow to 21,198 rooms, a total of 28,539 rooms—exceeding the requirement.

If Queenstown, Christchurch and Wanaka accommodation capacity grew by 4% then 16,744 rooms could be offered—about two thirds of the current requirement.

The Olympic Agenda 2020 report probably allows for less rooms to be offered, and if Queenstown and Wanaka accommodation capacity grew by 6% then 10,506 rooms could be offered—still less than double the pre report requirement.

As it stands only an Auckland-Queenstown (and/or Melbourne) bid could meet previous requirements by 2026, and this report is not brave enough to assume other towns would build this capacity just for the Olympics.

### Transport

One of the biggest challenges is transport between Queenstown and other towns and cities, and from Olympic Villages to venues. Competing applicant cities are likely to have, or plan to have, multi-lane motorways, railways, gondolas or trams linking different locations.

This report assumes multi-lane motorways and railways are impossible in Central Otago. Instead gondolas to the ski resorts, and traffic management plans in Queenstown and Auckland from Olympic Villages to venues during the Olympics are the answer.

A critical issue is whether the IOC will allow an airlink rather than a train or road. If so then Auckland and/or Melbourne can be hosting cities with Queenstown.

Likewise Queenstown Airport will need to show it can handle much higher levels of passenger numbers and that airlines will be able to add sufficient low visibility capable (known as “RNP-AR”) jet capacity to Queenstown routes.

### Media Centres

The pre Agenda 2020 requirements were for a Media Press Centre of 25,000m<sup>2</sup> and an International Broadcast Centre of 40,000m<sup>2</sup>. These are incredibly large and no convention space planned in Auckland, Christchurch or Queenstown would be able to offer this floor area. It seems likely that a temporary structure will need to be built, a number of locations used, or IOC flexibility sought as per the new Agenda 2020 rules.

### Ski Jump and Sliding Centre

Ski jumping is one of the most exciting events of the Olympics, but the facility is expensive and little used post Games. The Agenda 2020 report allows events to be moved to third countries and this would need to be the case in New Zealand. The sliding centre and the ski jump facility would be held outside of Australasia in an existing facility (e.g. Nagano, Japan or Whistler, Canada).

### Villages

Given New Zealand’s housing availability problems selling units from an Olympic Village seems comparatively easy especially if the main village is in Auckland.

However there is a difference of more than 200m elevation between the Queenstown Olympic Village and the venue for endurance sports. So, under pre Agenda 2020 rules, New Zealand would be required to build a second village for endurance sports

at competition elevation. This report assumes the endurance sports are the cross country type events: biathlon, cross country and nordic combined. So the village would be built on Mt Pisa, probably beside the existing accommodation. Alternatively the endurance sports would be held in Australia.

### **Recommended Option**

What option is chosen comes down to NZ Government funding. Indeed with a dictator's wallet and lack of environmental sensitivity all options would be possible. However, given the significant funding, accommodation capacity and intertown transport issues it seems like there is only one or two options

- 1) New Zealand, its largest city, Auckland, with its largest alpine town, Queenstown.
- 2) Australasia, spread across Auckland and/or Melbourne, and Queenstown.

Twelve options were considered (see Appendix III) that included the towns and cities of Wanaka, Naseby, Dunedin and Christchurch. An option of every major city having a venue was also considered. However this may stray too far from the Olympic Village concept and have accommodation, transport and/or funding constraints.

## Recommended Concept: Auckland-Queenstown 2026

Specifically the option *Auckland and Queenstown, Permanent* in Appendix III. In essence this is a Vancouver 2010 type bid with the Vancouver-Whistler *Sea to Sky Highway 99* replaced with an Auckland-Queenstown “*Sea to Mountain Airway*” connection.

The large Auckland population can support the ice rink venues, and the Auckland Council is the only council large enough to assist with funding (as well as being event-savvy). Only Auckland has sufficient existing accommodation for New Zealand to be within reach of the 24,000 rooms required. What’s more, the Olympic Village accommodation would be one answer to Auckland’s housing shortage. Auckland also probably has sufficient convention and sport arena floor space to host media and broadcast centres.

Currently Queenstown can demonstrably carry out most of the mountain events in the Olympic Winter Games as seen by the Winter Games NZ competition. The transport issues (including gondolas) and Mountain Village seem doable. The endurance events can be hosted at Mt Pisa but may be better held in Australia. The sliding and ski jumping facility would be held elsewhere. However Queenstown may need to increase hotel/motel accommodation faster than the 4% pa visitation forecast. A convention centre would need to be built or the Events Centre extended to host media, and there may need be temporary structures and dispensation sought for smaller facilities. Agenda 2020 has made this possible.

### **The Auckland-Queenstown 2026 Proposition**

A technically acceptable bid is unlikely to be enough to garner sufficient IOC votes. Indeed other cities are likely to offer technically better proposals (given larger budgets and the lack of democratic constraints). New Zealand will also need to show how the Olympic Winter Games helps achieve our cities’ aims and aspirations, what the legacy of the games will be, and how environmentally sustainable the Auckland-Queenstown 2026 proposal is.

This report proposes New Zealand celebrates it’s smallness and advocates taking the games back to its roots. The concept is,

*The Olympic Winter Games as it used to be. A celebration of sport, held in the world’s friendliest village, by the world’s youngest country, in the world’s purest environment—Auckland-Queenstown 2026.*

At the heart of this concept is a comparatively smaller scale event held by an honest, decent and democratic nation. It is the antithesis of Sochi 2014.

In effect we would be assisting the IOC to revamp the Olympics to make it more affordable for more cities. To help the IOC have headlines that say how little an Olympic can cost rather than how much, how even a small country can put on a fantastic Olympics while protecting the environment, and how an Olympics can be demonstrably corruption-free and attract little protest. The IOC will come out of 2026 with its brand Kiwi burnished rather than Sochi tarnished.

## The Application Process and Timeline

The Olympic Agenda 2020 report has changed the host selection process. Prospective hosts are now invited to IOC headquarters where they are assisted with preparing their application. Instead of requirements, there is now flexibility to build an olympic event around the particular needs of the bidding country.

Of course there is an host election so assuming some of the previous process then the following deadlines might apply. Applicants would need to submit an application in March 2018, a much more detailed Candidature file in 2019, and conduct a final presentation to the IOC in 2020 at which time an election takes place.

## Next Steps

### 1. Full Feasibility Study (2015)

Given the size of the project and the consultative process necessary for a government backed project, a full Feasibility Study should be done this year to meet a 2018 application deadline. Specifically, the NZOC Board should ask the NZ Government to fund and undertake the study (probably via Sport NZ).

The report will include:

- the economic benefits and costs (with Tourism NZ and MBIE, including an independent economics report)
- the winter sports benefits and costs (with sports bodies and Winter Games NZ)
- the technical feasibility (with the sports bodies and ski areas)
- infrastructure issues (including roads and airports)
- Queenstown and Auckland “carrying capacity” i.e. accommodation forecasts
- funding scenarios (NZ Government, councils and private funding)
- support and feedback from communities, business, Maori and DOC
- Australian state and federal governmental interest

It would be funded by the NZ Government and be completed by December 2015. It would be done with assistance from the IOC (as per the new Agenda 2020 process).

### 2. Funding and Application (2016)

Having considered the report, if the NZOC Board and NZ Government believes hosting the Olympics is feasible then funding requirements would be formalised and negotiated between the NZ Government, private sector and councils. If top line funding arrangements could be agreed then the councils, NZOC and NZ Government would ask a project team to proceed with the compilation of an “Application File”. This is a detailed report on what NZ 2026 would look like including detailed cost estimates.

### 3. Applicant Bid (2016-18)

The application would have until 2018 to be completed under the old rules. The new Agenda 2020 rules are being formalised.

## References

“2013 Western market visitor growth. What explains the increase in advanced-economy visitors?” NZIER report to Tourism New Zealand, March 2014

2014 Winter Olympics Financing

[http://en.wikipedia.org/wiki/2014\\_Winter\\_Olympics#Financing](http://en.wikipedia.org/wiki/2014_Winter_Olympics#Financing)

2018 Working Group Report

[http://www.olympic.org/Documents/Host\\_city\\_elections/2018\\_Working\\_Group\\_Report\\_EN.pdf](http://www.olympic.org/Documents/Host_city_elections/2018_Working_Group_Report_EN.pdf)

2022 Working Group Report

[http://www.olympic.org/Documents/Host\\_city\\_elections/2022\\_Working\\_Group\\_Report.pdf](http://www.olympic.org/Documents/Host_city_elections/2022_Working_Group_Report.pdf)

Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007. Chapter 11.7. Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.) Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. accessed [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/ch11s11-7.html](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch11s11-7.html)

Duval A., Olympic Agenda 2020: Window Dressing or New Beginning?

<http://www.asser.nl/SportsLaw/Blog/post/olympic-agenda-2020-window-dressing-or-new-beginning>

GamesBids

[http://www.gamesbids.com/eng/winter\\_olympic\\_bids/2022\\_olympic\\_bid/1216136981.html](http://www.gamesbids.com/eng/winter_olympic_bids/2022_olympic_bid/1216136981.html)

Ian Owens, "Climate change and snow: effects on ski tourism overseas and in New Zealand", Queenstown Presentation 2014.

IOC Report on Vancouver

[http://www.olympic.org/Documents/Reports/EN/en\\_report\\_706.pdf](http://www.olympic.org/Documents/Reports/EN/en_report_706.pdf)

IOC statement on Oslo 2022

<http://www.olympic.org/news/ioc-statement/238610>

New Zealand tourism sector outlook. Forecasts for 2014-2020. NZIER report to MBIE. September 2014.

Olympic Agenda 2020, 126th IOC Session 5-6 February 2014

[http://www.olympic.org/Documents/IOC\\_Executive\\_Boards\\_and\\_Sessions/IOC\\_Sessions/126\\_Session\\_Sochi/Olympic\\_Agenda2020\\_Part\\_1\\_English.pdf](http://www.olympic.org/Documents/IOC_Executive_Boards_and_Sessions/IOC_Sessions/126_Session_Sochi/Olympic_Agenda2020_Part_1_English.pdf)

“Olympic Agenda 2020, 20+20 Recommendations”, IOC. 9 December 2014.

[http://www.olympic.org/Documents/Olympic\\_Agenda\\_2020/Olympic\\_Agenda\\_2020-20-20\\_Recommendations-ENG.pdf](http://www.olympic.org/Documents/Olympic_Agenda_2020/Olympic_Agenda_2020-20-20_Recommendations-ENG.pdf)

Olympic venues Sochi 2014

[http://shamey.ru/web/sochi/view\\_wq\\_lesson.php?num=3](http://shamey.ru/web/sochi/view_wq_lesson.php?num=3)

Sochi 2014 IOC Marketing

[www.olympic.org/Documents/IOC\\_Marketing/Sochi\\_2014/sochi-2014-global-coverage-audience-summary-vaug14.pdf](http://www.olympic.org/Documents/IOC_Marketing/Sochi_2014/sochi-2014-global-coverage-audience-summary-vaug14.pdf) (p.4)

Thomas Bach, “IOC boss: NZ should look at hosting Olympics”. TV3 News.

<http://www.3news.co.nz/sport/ioc-boss-nz-should-look-at-hosting-olympics-2015050513#axzz3ZD8ZPmwB>

TNZ 2010. Benchmark Marketing Performance for Regional Tourism Operators: Insights from the Australian Market (2010). TNS Research on behalf of TNZ.

Tourism 2025

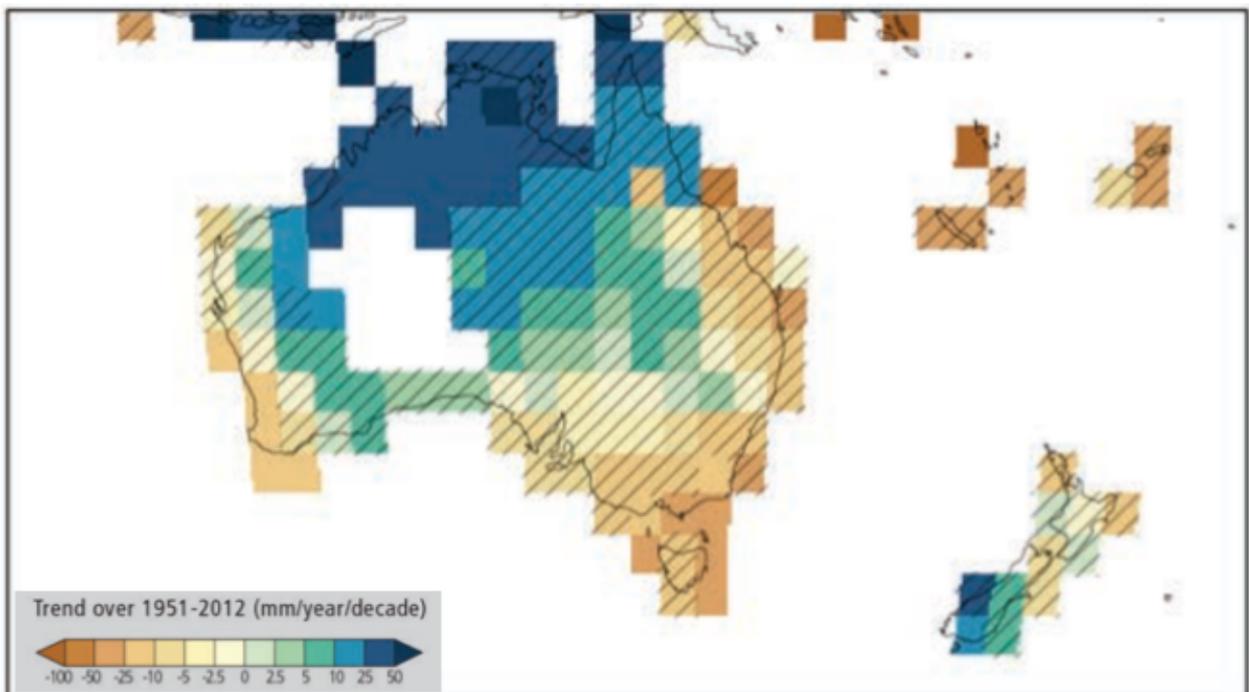
<http://tourism2025.org.nz/assets/Documents/Tourism-2025-Summary.pdf>

## Appendices

### Appendix I: The Australian Ski Industry and Climate Change

Australian ski resorts are in the mountains roughly equidistant between Sydney and Melbourne in the diagram below. This general area shows a trend of less precipitation over the last 6 decades. Central Otago on the other hand shows more precipitation over that period.

*Diagram: Australasian Precipitation 1951-2012 (IPCC WGII AR5)*



*Source: Ian Owens "Climate change and snow: effects on ski tourism overseas and in New Zealand" (diagram from IPCC WGII AR5, Ch. 25)*

It is generally accepted by climatologists that New Zealand and Australia will both get warmer—though the South Island will get less warmer especially in the winter. Precipitation is likely to decrease in southern Australia in winter, and increase in the South Island. Here's how the IPCC report puts it,

*All of Australia and New Zealand are very likely to warm during this century, with amplitude somewhat larger than that of the surrounding oceans, but comparable overall to the global mean warming. The warming is smaller in the south, especially in winter, with the warming in the South Island of New Zealand likely to remain smaller than the global mean. Increased frequency of extreme high daily temperatures in Australia and New Zealand, and decrease in the frequency of cold extremes is very likely. Precipitation is likely to decrease in southern Australia in winter and spring. Precipitation is very likely to decrease in south-western Australia in winter. Precipitation is likely to increase in the west of the South Island of New*

*Zealand. Changes in rainfall in northern and central Australia are uncertain. Extremes of daily precipitation are very likely to increase. The effect may be offset or reversed in areas of significant decrease in mean rainfall (southern Australian in winter and spring). An increase in potential evaporation is likely. Increased risk of drought in southern areas of Australia is likely. (Solomon et al, IPCC, Chapter 11.7)*

Unlike the Australian ski industry, the New Zealand ski industry has done extensive research into how climate warming will affect ski resort snow conditions. The New Zealand research shows that, with snowmaking, South Island ski resorts will continue for at least another 40 years (Owens).

This report makes the assumption that Australian mountains will a) warm up significantly more than New Zealand mountains b) that there is less precipitation in Australian mountains and c) that water is much less available to Australian resorts for snowmaking. The report is not stating this will happen, it merely reports in international climate forecast, and acknowledges more research needs to be done.

It should be noted that both countries show huge variability in snow fall every year regardless of climate change—so last year’s snow conditions should not be regarded as an indicator of long term snowfall forecasts.

However increasingly poor snow conditions in Australia will not necessarily lead to Australian skiers coming to New Zealand.

### **Australians Perception of New Zealand Ski Resorts**

For decades the Queenstown (Wanaka and other New Zealand regions) have been marketing ski holidays to Australians. There has been steady success with an estimated 50,000-100,000 Australian skiers visiting mainly Central Otago mountains (IVS, TNZ 2010). However the total Australian skier market size is between one million and two million people (TNZ 2010). The reasons they don’t come to New Zealand are include not being seen about an aspirational or exotic location (Sweeny 2014).

Instead of skiing in Australia or New Zealand they travel to Japan and North America. New Zealand cannot assume that we will naturally absorb the Australian ski market if it suffers from climate change.

### **Who remembers Sjusjoen?**

Absolutely no one—but everyone remembers Lillehammer. Both were backwater ski resort towns of a similar distance from Oslo, Norway, then Lillehammer held the winter olympics in 1994. Lillehammer is now world famous because the Olympics changes the awareness and perception of the hosting city around the world, as it will

for Queenstown. Queenstown will become the ski resort that the Australian skier aspires to go to, alongside Japan and North America. It will address the aspirational issue identified in the ski industry research.

## Appendix II: Financial Modelling

<b>OWG NET VALUE</b>		
v4May2015		
<b>INPUT SECTION</b>		
International Visitors 2013	2,710,000	Sources, Notes and Formulas
International Visitor Expenditure 2013	\$ 6,673,000,000	Tourism Sector Outlook Sept-14. NZ Total.
Visitor CAGR 2013-2026	3.95%	Tourism Sector Outlook Sept-14. NZ Total.
Visitor Expenditure CAGR 2013-2026	3.23%	Tourism Sector Outlook Sept-14. NZ Total.
Visitor Expenditure per person 2016	\$ 2,250	estimate based on Visitor CAGR 2013-2026 of 3.95% and expenditure of 3.23%
Forex rate NZ:US	\$ 0.80	estimate
IOC provided OCOG expenditure USD	\$ 880,000,000	IOC statement on Oslo withdrawal
Incremental visitor/expenditure growth from OWG	4.5%	Estimate based on TNZ "NZ Specific Factors" marketing. NZIER for TNZ, Mar-14. Simple average of to
Australian ski market size	1,000,000	TNZ 2010. Benchmark Marketing Performance for Regional Tourism Operators: Insights from the Aust
Queenstown/Wanaka current AUS skier market share	7.5%	IVS, TNZ 2010
Queenstown/Wanaka AUS skier market share post OWG	25%	Estimate based on climate change and perception changes
Accredited OWG visitors in winter 2026	100,000	2018 Working Group Report
Years of Benefits	5	
NZ Government funding:		All estimates
Ski resort seats and standing area	\$ 5,000,000	
Ski jump structure, seats and standing area		Held in a third country (e.g. Nagano, Japan)
Sliding venue		Held in a third country (e.g. Nagano, Japan)
Cost per Enclosed Stadium	\$ 100,000,000	
Number of Stadia	5	
Olympic Village Auckland	\$ -	Private funded
Olympic Village Queenstown	\$ -	Private funded
Olympic Village Endurance Sport	\$ -	Private funded
Media Press Centre (25,000m2)	\$ 20,000,000	
International Broadcast Centre (40,000m2)	\$ 35,000,000	
Mountain Press Centre	\$ 5,000,000	
Mountain Broadcast Centre	\$ 5,000,000	
Gondolas	\$ -	Private funded
Roading and Public Transport Infrastructure	\$ -	QLDC funded
Hospital services	\$ 25,000,000	
<b>OUTPUT SECTION</b>		
<b>Forecast with no OWG</b>		
Year	2026	Formulas
Total int'l visitors	4,484,228	International Visitors 2013 * (1 + Visitor CAGR 2013-2026) ^ number of years
Total int'l spend	\$ 10,087,839,881	International Visitor Expenditure 2013 * (1 + Visitor Expenditure CAGR 2013-2026) ^ number of years
Expenditure per int'l visitor	\$ 2,250	Visitor Expenditure per person 2016
Australian skiers 2026	75,000	Australian ski market size * Queenstown/Wanaka current AUS skier market share
<b>Forecasts with OWG</b>		
<b>Forecast Method: Incremental Growth</b>		
Total incremental int'l visitors pa	201,790	Total int'l visitors * Incremental visitor/expenditure growth from OWG
Total incremental int'l spend pa	\$ 453,952,795	Total int'l spend * Incremental visitor/expenditure growth from OWG
Total Australian skiers on NZ ski holiday pa	250,000	Australian ski market size * Queenstown/Wanaka AUS skier market share post OWG
Incremental Australian skiers	175,000	Total Australian skiers on NZ ski holiday - Australian skiers 2013
Incremental Australian skier expenditure	\$ 393,684,705	Incremental Australian skiers * Expenditure per int'l visitor
Total incremental visitor growth	376,790	Total incremental int'l visitors + Incremental Australian skiers
Total incremental visitor expenditure growth	\$ 847,637,500	Total incremental int'l spend + Incremental Australian skier expenditure
Years	2027-2031	
Total incremental visitors over following years	1,883,951	Total incremental visitor growth * Years of Benefits
Total incremental expenditure over following years	4,238,187,500	Total incremental visitor expenditure growth * Years of Benefits
Year	2026	
Accredited OWG visitors in winter 2026	100,000	Accredited OWG visitors in winter 2026
Accredited OWG visitors expenditure 2026	\$ 224,962,689	Accredited OWG visitors in winter 2026 * Expenditure per int'l visitor
IOC OCOG operating budget contribution 2026	\$ 1,100,000,000	IOC provided OCOG expenditure USD / Forex rate NZ:US
Total OWG expenditure 2026	\$ 1,324,962,689	Accredited OWG visitors expenditure 2026 + Total OWG expenditure 2026
Years	2026-2031	
Incremental International Visitors due to OWG	1,983,951	Total incremental visitors over following years + Accredited OWG visitors in winter 2026
Incremental International Visitor Expenditure due to OWG	\$ 5,563,150,189	Total incremental expenditure over following years + Total OWG expenditure 2026
<b>Cost to NZ Government</b>		
Ski resort seats and standing area	\$ 5,000,000	Ski resort seats and standing area
Ski jump structure, seats and standing area	\$ -	Ski jump structure, seats and standing area
Sliding venue	\$ -	Sliding venue
Cost per Enclosed Stadium	\$ 100,000,000	Cost per Enclosed Stadium
Number of Stadia	5	Number of Stadia
Stadia Cost	\$ 500,000,000	Cost per Enclosed Stadium * Number of Stadia
Sport Venue Total Cost	\$ 505,000,000	Sum of above
Olympic Village Auckland	\$ -	Olympic Village Auckland
Olympic Village Queenstown	\$ -	Olympic Village Queenstown
Olympic Village Endurance Sport	\$ -	Olympic Village Endurance Sport
Total Village Cost	\$ -	Sum of above
Media Press Centre (25,000m2)	\$ 20,000,000	Media Press Centre (25,000m2)
International Broadcast Centre (40,000m2)	\$ 35,000,000	International Broadcast Centre (40,000m2)
Mountain Press Centre	\$ 5,000,000	Mountain Press Centre
Mountain Broadcast Centre	\$ 5,000,000	Mountain Broadcast Centre
Media Centres Cost	\$ 65,000,000	Sum of above
Gondolas	\$ -	Gondolas
Roading and Public Transport Infrastructure	\$ -	Roading and Public Transport Infrastructure
Hospital services	\$ 25,000,000	Hospital services
Infrastructure Cost	\$ 25,000,000	Sum of above
Total NZ Government Cost	\$ 595,000,000	Sport Venue Total Cost + Village Cost + Media Centres Cost + Infrastructure Cost

Diagram Above: Net Value. The Net Value model that includes costs and a simpler version of the “Incremental Growth” benefits method. Source: spreadsheet OWG-Financial-Model.xlsx (available on request).

Diagrams Below: Sensitivity Analysis.

Variable	Optimistic	Pessimistic
Years of Benefits	87.0%	-69.6%
Australian ski market size	40.4%	-10.1%
Queenstown/Wanaka AUS skier market share post OWG	23.1%	-23.1%
Visitor Expenditure CAGR 2013-2026	19.1%	-6.7%
Incremental visitor/expenditure growth from OWG	15.5%	-25.9%
Visitor Expenditure per person 2016	7.0%	-7.0%
Queenstown/Wanaka current AUS skier market share	5.8%	-17.3%
Forex rate NZ:US	5.2%	-3.6%
Cost per Enclosed Stadium	5.1%	-5.1%
IOC provided OCOG expenditure USD	3.1%	-11.3%
Accredited OWG visitors in winter 2026	1.2%	-1.2%
International Broadcast Centre (40,000m2)	0.4%	-0.7%
Hospital services	0.3%	-0.5%
Media Press Centre (25,000m2)	0.2%	-0.4%
Ski resort seats and standing area	0.1%	-0.1%
Mountain Press Centre	0.1%	-0.1%
Mountain Broadcast Centre	0.1%	-0.1%
Visitor CAGR 2013-2026	0.0%	0.0%
Roading and Public Transport Infrastructure	0.0%	0.0%
Olympic Village Queenstown	0.0%	0.0%
Olympic Village Endurance Sport	0.0%	0.0%
Olympic Village Auckland	0.0%	0.0%
Number of Stadia	0.0%	-2.0%
International Visitors 2013	0.0%	0.0%
International Visitor Expenditure 2013	0.0%	0.0%

Variables	Scenarios			Input Sensitivity	
	Base	Optimistic	Pessimistic	Optimistic	Pessimistic
International Visitors 2013	2,710,000	2,710,000	2,710,000	0.0%	0.0%
International Visitor Expenditure 2013	\$ 6,673,000,000	\$ 6,673,000,000	\$ 6,673,000,000	0.0%	0.0%
Visitor CAGR 2013-2026	3.95%	6%	2%	0.0%	0.0%
Visitor Expenditure CAGR 2013-2026	3.23%	6%	2%	19.1%	-6.7%
Visitor Expenditure per person 2016	\$ 2,250	\$ 2,600	\$ 1,900	7.0%	-7.0%
Forex rate NZ:US	\$ 0.80	\$ 0.65	\$ 0.95	5.2%	-3.6%
IOC provided OCOG expenditure USD	\$ 880,000,000	\$ 1,000,000,000	\$ 440,000,000	3.1%	-11.3%
Incremental visitor/expenditure growth from OWG	4.5%	6%	2%	15.5%	-25.9%
Australian ski market size	1,000,000	2,000,000	750,000	40.4%	-10.1%
Queenstown/Wanaka current AUS skier market share	7.5%	5.0%	15.0%	5.8%	-17.3%
Queenstown/Wanaka AUS skier market share post OWG	25%	35%	15%	23.1%	-23.1%
Accredited OWG visitors in winter 2026	100,000	125,000	75,000	1.2%	-1.2%
Years of Benefits	5	10	1	87.0%	-69.6%
NZ Government funding:					
Ski resort seats and standing area	\$ 5,000,000	\$ 2,500,000	\$ 10,000,000	0.1%	-0.1%
Ski jump structure, seats and standing area					
Sliding venue					
Cost per Enclosed Stadium	\$ 100,000,000	\$ 50,000,000	\$ 150,000,000	5.1%	-5.1%
Number of Stadia	5	5	6	0.0%	-2.0%
Olympic Village Auckland	\$ -	\$ -	\$ -	0.0%	0.0%
Olympic Village Queenstown	\$ -	\$ -	\$ -	0.0%	0.0%
Olympic Village Endurance Sport	\$ -	\$ -	\$ -	0.0%	0.0%
Media Press Centre (25,000m2)	\$ 20,000,000	\$ 10,000,000	\$ 40,000,000	0.2%	-0.4%
International Broadcast Centre (40,000m2)	\$ 35,000,000	\$ 17,500,000	\$ 70,000,000	0.4%	-0.7%
Mountain Press Centre	\$ 5,000,000	\$ 2,500,000	\$ 10,000,000	0.1%	-0.1%
Mountain Broadcast Centre	\$ 5,000,000	\$ 2,500,000	\$ 10,000,000	0.1%	-0.1%
Gondolas	\$ -	\$ -	\$ -	0.0%	0.0%
Roading and Public Transport Infrastructure	\$ -	\$ -	\$ -	0.0%	0.0%
Hospital services	\$ 25,000,000	\$ 10,000,000	\$ 50,000,000	0.3%	-0.5%

Source: spreadsheet OWG-Financial-Model.xlsx (available on request).

The model shows significant sensitivity to the number of years of incremental benefit of the Olympics. If only one year of incremental visitor benefits are assumed then the Net Benefit drops by 70% to \$1.5 billion. If the most pessimistic assessment of construction costs is taken (\$1.34 billion not \$0.97 billion) then the net value is still positive but uncomfortably close to breakeven.

The other variables showing similar high sensitivity is the estimate of 1) Australian skier market size and 2) the share Queenstown and Wanaka gets post the games.

### **Olympic Winter Games Financial Modelling**

This author accepts that economic modelling rather than financial modelling is the appropriate way to assess the net economic benefit of hosting the Olympics. However, for a pre-feasibility study, a “quick and dirty” financial assessment approach has been taken and should be sufficient.

#### OWG NetValue tab

The Net Value model combines costs and benefits to calculate the Net Benefit of hosting the games. This model uses a simplified version of the “Incremental Growth” benefit calculation method to allow for easier sensitivity analysis, so the benefits are a little different from the more detailed model below.

#### OWG Benefits tab

Three methods are used to analyse benefits: “Incremental Growth”, “Percentage of TV Viewers” and “Accommodation Supply Constrained”. The “Incremental Growth” and “Accommodation Supply Constrained” methods came out at about the same total number, whereas the “Percentage of TV Viewers” was adjusted to be consistent with the other two.

The “Incremental Growth” method measures the additional growth of international visitors and their expenditure. It splits international general tourism and Australian ski holiday visitation. In the case of international growth the “Hobbit effect” is used as a proxy. In essence a report (NZIER Western Market Growth report) found that non-economic “NZ specific factors”, presumed to be Hobbit-based Tourism NZ marketing, increased growth by 4.5%. The Australian skier growth assumes a combination of climate change issues with Australian ski resorts, coupled with the Olympics addressing the credibility issues of Queenstown/Wanaka ski resorts, increases market share of the Australian skier market from 7.5% to 25%. These two sources of visitor growth are about equal. On average this equates to 400,000 more international visitors per annum and an additional NZ\$900 million of expenditure per annum. For the year of the Olympics and these five years after the Olympics (2027-2031) this equates to 2.1 million incremental visitors spending NZ\$6.0 billion.

The “Percentage of TV Viewers” method assumes 0.1% of the 2.06 billion TV viewers of the Olympics decide to come to New Zealand after watching the Olympics. Together with the 2026 Olympics expenditure this equates to NZ\$6.04 billion of expenditure and 2.0 million visitors over a period of years.

However the demand numbers are so large this report believes the supply side of the tourism economy of accommodation and airline connectivity could determine visitation numbers and expenditure rather than demand. The “Accommodation Supply Constrained” method assumes that hotel/motel/apartment accommodation is increased by about 800 rooms in Queenstown and 1000 rooms in Auckland as a direct result of hosting the Olympics (airline connectivity is ignored). This is adjusted for seasonal occupancy and guests per room, and calculates that each year about 140,000 visitors in Queenstown and 240,000 visitors in Auckland will be able and willing to stay in these two areas. Together with the 2026 Olympics expenditure this equates to NZ\$5.99 billion of expenditure and 1.9 million visitors for the year of the Olympics and the five years after the Olympics (2027-2031).

#### OWG Cost tab

See commentary next page.

## Cost Estimates and a Possible Funding Split

The only similar cost the author has been able to find is the IOC report on Vancouver 2010. This was US\$930 million (NZ\$1.16 billion) “for the construction and renovation of competition venues, Olympic Villages and road improvements, as well as a post-Games operating endowment fund for three venues” (IOC Report on Vancouver).

*Figure: Cost Estimates*

OWG COSTS			Base Scenario			
All costs are estimates			Private	QLDC/ORC	NZ Government	Total
<b>Ski and snowboard venues</b>						
Alpine skiing (2 venues)	Ski area 1	Demountable seats a	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000
	Ski area 2	Demountable seats a	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000
Freestyle	Ski area 1	Demountable seats a	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000
Snowboard	Ski area 1	Demountable seats a	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000
Biathlon / Nordic combined / Cross country skiing	Ski area 1	Demountable seats a	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000
<b>Sliding and Jumping venues</b>						
Ski jumping	Ski area?	Demountable jump s	\$ -	\$ -	\$ -	\$ -
Bobsleigh / Skeleton / Luge	Bob's Peak	Track, and seats	\$ -	\$ -	\$ -	\$ -
<b>Ice rink venues</b>						
Curling	Auckland	Enclosed Stadium	\$ -	\$ -	\$ 100,000,000	\$ 100,000,000
Ice hockey 1	Auckland	Enclosed Stadium	\$ -	\$ -	\$ 100,000,000	\$ 100,000,000
Ice hockey 2	Auckland	Enclosed Stadium	\$ -	\$ -	\$ 100,000,000	\$ 100,000,000
Figure Skating / Short Track	Auckland	Enclosed Stadium	\$ -	\$ -	\$ 100,000,000	\$ 100,000,000
Speed Skating	Auckland	Enclosed Stadium	\$ -	\$ -	\$ 100,000,000	\$ 100,000,000
Opening/Closing Stadium (if different from above)	Auckland					
<b>Olympic Villages</b>						
		Beds				
Auckland City Village	Auckland	3000	\$ 175,000,000	\$ -	\$ -	\$ 175,000,000
Queenstown Mountain Village	Queenstown	1250	\$ 72,916,667	\$ -	\$ -	\$ 72,916,667
"Endurance sport" Village	Mt Pisa?	250	\$ 14,583,333	\$ -	\$ -	\$ 14,583,333
<b>Media</b>						
Media Press Centre (25,000m2)	Auckland	20,000 m2	\$ -	\$ -	\$ 20,000,000	\$ 20,000,000
International Broadcast Centre (40,000m2)	Auckland	35000 m2	\$ -	\$ -	\$ 35,000,000	\$ 35,000,000
Mountain Press Centre	Queenstown	5000m2	\$ -	\$ -	\$ 5,000,000	\$ 5,000,000
Mountain Broadcast Centre	Queenstown	5000m2	\$ -	\$ -	\$ 5,000,000	\$ 5,000,000
<b>General Infrastructure</b>						
Transport links from the Host City to the venues	Gondola - Remarkables		\$-	\$ -	\$ -	\$ -
	Gondola - Cardrona		\$-	\$ -	\$ -	\$ -
	Gondola - Mt Pisa?		\$ -	\$ -	\$ -	\$ -
Roading and Public Transport Infrastructure			\$ -	\$ 5,000,000	\$ -	\$ 5,000,000
Hospital services			\$ -	\$ -	\$ 25,000,000	\$ 25,000,000
TOTAL			\$ 262,500,000	\$ 5,000,000	\$ 595,000,000	\$ 862,500,000

Source: Estimates only. Auckland Council may contribute to NZ Government cost.

Needless to say, construction cost estimates need to be calculated in a full feasibility study.

The cost of bidding for the Olympics has not been included but is could be \$10 million over a period of years.

## Cost Estimates for the Olympic Villages

The Olympic Village cost is based on the following assumptions. There there are two beds per room, 3 rooms per house, 100m<sup>2</sup> per house that cost \$3500 per m<sup>2</sup> to build. This equates to \$58,33 per room.

Figure: Housing construction costs for the Olympic Village

	Beds per room	Rooms per house	m <sup>2</sup> per house	m <sup>2</sup> cost house	m <sup>2</sup> cost land	Cost per house/land	Cost per room	Cost per bed
Base	2	3	100	\$ 2,500	\$ 1,000	\$ 350,000	\$ 116,667	\$ 58,333
Optimistic	2	3	100	\$ 2,000	\$ 250	\$ 225,000	\$ 75,000	\$ 37,500
Pessimistic	2	3	100	\$ 3,500	\$ 1,500	\$ 500,000	\$ 166,667	\$ 83,333

Source: Estimate only.

Needless to say, Village cost estimates need to be calculated in a full feasibility study.

## Appendix III: Possible NZ Olympic Winter Games Options

The Agenda 2020 report has led to substantial flexibility in hosting country requirements. Exactly what this means is unclear at the time this report was written. In order to understand the possibilities it is necessary to outline what is needed to host a winter olympics under the previous rules (2018 and 2022 Working Group Reports).

### Previous Requirements

#### A Host City

- That there is only one City that hosts, not a country, but there can be sub hosting towns nearby

#### Ski and snowboard venues

- Alpine skiing (2 venues)
- Freestyle
- Snowboard
- Biathlon / Nordic combined / Cross country skiing

#### Sliding and Jumping venues

- Ski jumping
- Bobsleigh / Skeleton / Luge

#### Ice rink venues

- Curling
- Ice hockey (2 venues)
- Figure Skating / Short Track
- Speed Skating

#### Olympic Villages

- Athlete accommodation (4500 beds), can be more than one Village
- “Endurance sport” Village (if 200m elevation between venue and Village)

#### Media Venues

- Media Press Centre (25,000m<sup>2</sup>)
- International Broadcast Centre (40,000m<sup>2</sup>)

#### General Infrastructure

- Transport links from the Host City to the venues within reasonable distances and travel times
- Traffic management during the games from Villages to venues
- Hospital services

## General Accommodation

- 2-5 star accommodation within 50km of the Games centre and 10km of other subhosting towns (24,200 rooms)

There are other requirements including major event experience, environment and meteorology, airport capacity, Paralympics planning, doping control, safety and security, telecommunications, energy supply, legal and customs formalities, government and public support, finance and marketing. All of these are important requirements but seem doable for a country that has hosted the Rugby World Cup, so this report focuses only on the requirements listed above.

Some important options include demountable vs permanent structures, public vs private financing sources, and ski and snowboard venues. A demountable structure is a building or venue that has been designed and built to be movable rather than permanently located. Sochi 2014 had four demountable ice rink buildings that are going to be moved to other parts of Russia (Olympic venues Sochi 2014). Financing sources are not just the NZ Government but also councils, Private-Public-Partnerships and private only. The ski and snowboard venues are assumed to be at Coronet Peak, Remarkables, Cardrona and/or Mt Pisa and are not further discussed below (though Mt Pisa may have issues and may need to be replaced by a Victorian state cross country ski resort).

## Possible Concepts

There are many possible combinations and permutations of cities and towns, venues, accommodation, transport and financing. The key ones are listed below ordered by distance from Queenstown, and ranked based off likelihood of success.

Concept	Comment	Unlikely, Possible or Probable	Rank
<u>Queenstown Only, Permanent Structures</u> <ul style="list-style-type: none"> <li>• Queenstown hosts the event in its entirety.</li> <li>• All structures are permanent.</li> <li>• Media Centres built onto Convention Centre (new).</li> <li>• All accommodation is in Queenstown, fivefold increase, private funding.</li> </ul>	<p>All of IOC requirements are met. A traditional Olympic bid. Requires unrealistic government funding and increases in Queenstown accommodation.</p>	Unlikely	n/a

<ul style="list-style-type: none"> <li>● Gondolas to ski areas.</li> <li>● NZ Government financed.</li> </ul>			
<p><u>Queenstown Only, Temporary Structures</u></p> <ul style="list-style-type: none"> <li>● Queenstown hosts the event in its entirety.</li> <li>● All structures are demountable and sent to other NZ cities post games.</li> <li>● Media Centres also demountable and sold.</li> <li>● All accommodation is in Queenstown, fivefold increase, private funding.</li> <li>● Gondolas to ski areas.</li> <li>● All of IOC requirements are met.</li> <li>● NZ Government financed.</li> </ul>	<p>All of IOC requirements are met. A traditional Olympic bid. Requires unrealistic NZ Government funding and increases in Queenstown accommodation.</p>	<p>Unlikely</p>	<p>n/a</p>
<p><u>Queenstown and Wanaka, Permanent and Temporary Structures</u></p> <ul style="list-style-type: none"> <li>● Olympic Village in the Wakatipu basin sold as residential units post games, private funding.</li> <li>● Three of the five ice rink venues would be “demountable” and be built on farmland on the valley floor of Queenstown and Wanaka. Post games three venues would be given to Auckland, Wellington and Christchurch, and these three would be financed by the NZ Government. Wanaka (new) and Queenstown (renovated Queenstown Gardens ice rink, also used for ceremonies) would each retain a new ice rink venue and this would be financed by QLDC.</li> <li>● The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>● Gondolas would link the</li> </ul>	<p>All of IOC requirements are met. A traditional Olympic bid. Requires unrealistic NZ Government funding and increase in Queenstown accommodation.</p>	<p>Unlikely</p>	<p>n/a</p>

<p>Remarkables and/or Coronet Peak, Cardrona, and Mt Pisa to Queenstown. The gondola to Cardrona would continue to Mt Pisa and then Wanaka. Private funding except for parts of the Queenstown-Wanaka link which would be QLDC/NZTA/ORC funded.</p> <ul style="list-style-type: none"> <li>● Accommodation would increase fivefold, mainly in Queenstown, private funding.</li> <li>● Media Centres built onto Convention Centre, QLDC funded.</li> </ul>			
<p><u>Queenstown and Wanaka, Temporary Structures, Hotel 2X</u></p> <ul style="list-style-type: none"> <li>● Olympic Village in the Wakatipu basin sold as residential units post games, private funding.</li> <li>● All five ice rink venues would be “demountable” and be built on farmland on the valley floor of Queenstown and Wanaka. Post games three venues would be given to Auckland, Wellington and Christchurch, and these three would be financed by the NZ Government. Two others would be sold to the IOC for future Hosting Cities to use.</li> <li>● The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>● Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding.</li> <li>● Accommodation would double, mainly in Queenstown, private funding.</li> <li>● Media Centres demountable (NZ Government funded).</li> </ul>	<p>Most IOC requirements met. Requires high levels of NZ Government funding and then QLDC maintenance. Accommodation doubling is achievable over 10 years but may not meet IOC standards. Intertown transport by road probably does not meet IOC standard (probably requires gondola, tram and/or double lane highway).</p>	<p>Possible</p>	<p>6</p>
<p><u>Queenstown and Otago, Temporary,</u></p>		<p>Possible</p>	<p>7</p>

<p><u>Hotel 2X</u></p> <ul style="list-style-type: none"> <li>• Olympic Village in the Wakatipu basin sold as residential units post games, private funding.</li> <li>• Three ice rink venues are “demountable” and be built on farmland on the valley floor of Queenstown and Wanaka. Post games three venues would be given to Auckland, Wellington and Christchurch, and these three would be financed by the NZ Government. Two others are Naseby and Dunedin.</li> <li>• The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>• The ski jumping facility would be demountable and sold to the IOC, or this event would be excluded from the Queenstown 2026 bid.</li> <li>• Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding.</li> <li>• Accommodation would double, mainly in Queenstown, private funding.</li> <li>• Media Centres built onto Convention Centre or demountable.</li> </ul>	<p>Many IOC requirements are met, but probably not enough. Requires high levels of NZ Government funding. Issues are poor road infrastructure to the rest of Otago and insufficient accommodation.</p>		
<p><u>Queenstown, Wanaka and Christchurch, Temporary, 2X</u></p> <ul style="list-style-type: none"> <li>• Olympic Villages in the Wakatipu basin and Christchurch, sold as residential units post games, private funding.</li> <li>• Two ice rink venues are “demountable” and are built on farmland on the valley floor of Queenstown and Wanaka. Post games two venues would be given to Auckland and</li> </ul>	<p>Most IOC requirement met. Issues are the airlink connections between the two towns, transport infrastructure between Queenstown and Wanaka, and insufficient accommodation (assuming 4% pa growth).</p>	<p>Probable</p>	<p>5</p>

<p>Wellington, and these three would be financed by the NZ Government. Three others are Christchurch (two new) and Naseby.</p> <ul style="list-style-type: none"> <li>• The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>• Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding. (Mt Hutt option)</li> <li>• Accommodation would double, in Queenstown and Christchurch, private funding.</li> <li>• Media Centres demountable (NZ Government funded).</li> </ul>			
<p><u>Queenstown and South Island, Permanent and Temporary, Hotel 2X</u></p> <ul style="list-style-type: none"> <li>• Olympic Village in the Wakatipu basin sold as residential units post games, private funding.</li> <li>• Ice rink venues are in Wanaka/Queenstown/Christchurch (new) Naseby and Dunedin.</li> <li>• The Sliding Centre and Ski The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>• Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding. (Mt Hutt option)</li> <li>• Accommodation probably doubles, in Queenstown, Dunedin and Christchurch, private funding.</li> <li>• Media Centres demountable (NZ Government funded).</li> </ul>	<p>Most IOC requirements met. Issues are the airlink connections between the towns, transport infrastructure between Queenstown and Wanaka, and insufficient accommodation (assuming 4% pa growth).</p>	<p>Possible</p>	<p>n/a</p>
<p><u>Auckland and Queenstown, Permanent and Temporary</u></p> <ul style="list-style-type: none"> <li>• Olympic Village in Auckland, Mountain Olympic Village in</li> </ul>	<p>Most IOC requirements</p>	<p>Probable</p>	<p>3</p>

<p>Queenstown, all sold as residential units post games, private funding.</p> <ul style="list-style-type: none"> <li>• All five ice rinks would be built in Auckland as a Private-Auckland Council-NZ Government Partnership. Post games two demountable venues might be given to Wellington and Christchurch, and these two would be financed by the NZ Government.</li> <li>• The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>• Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding.</li> <li>• Accommodation requirements would still need to increase in Auckland and Queenstown but at no more than projected visitation growth, private funding.</li> <li>• Media Centres are at the International Convention Centre and other space in Auckland, with a smaller media centre at the Queenstown Convention Centre (new).</li> </ul>	<p>met. Key issue is the Auckland-Queenstown airlink connection being acceptable to the IOC. May be underestimating Queenstown accommodation requirements. Similar to Vancouver 2010.</p>		
<p><u>Auckland and Queenstown, Permanent</u></p> <ul style="list-style-type: none"> <li>• Olympic Village in Auckland, Mountain Olympic Village in Queenstown, all sold as residential units post games, private funding.</li> <li>• All five ice rinks would be built in Auckland as a Private-Auckland Council-NZ Government Partnership.</li> <li>• The Sliding Centre and Ski Jump facility would be in a third country.</li> </ul>	<p>Same as above but no demountable structures. Most IOC requirements met. Key issue is the Auckland-Queenstown airlink connection being acceptable to the IOC. May be underestimating Queenstown accommodation requirements. Similar</p>	<p>Probable</p>	<p>=1</p>

<ul style="list-style-type: none"> <li>● Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding.</li> <li>● Accommodation requirements would still need to increase in Auckland and Queenstown but at no more than projected visitation growth, private funding.</li> <li>● Media Centres are at the International Convention Centre and other space in Auckland, with a smaller media centre at Queenstown.</li> </ul>	to Vancouver 2010.		
<p><u>New Zealand, Permanent</u></p> <ul style="list-style-type: none"> <li>● Olympic Village in each participating town, all sold as residential units post games, private funding.</li> <li>● Auckland, Hamilton, Wellington, Christchurch and Dunedin each host an ice rink event, financed as a Private-Council- NZ Government Partnership.</li> <li>● The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>● Gondolas would link Cardrona and Remarkables (Mt Pisa possibly but not a full Queenstown-Wanaka link), private funding. (Mt Hutt option)</li> <li>● Accommodation requirements would still need to increase in Auckland and Queenstown but at no more than projected visitation growth, private funding.</li> <li>● Media Centres are at the International Convention Centre in Auckland with a smaller media centres at each town's convention centre or equivalent.</li> </ul>	Many IOC requirements met but probably not enough. All the Villages and air links may be straying too far from the original Olympic Village concept for the IOC.	Unlikely	n/a

<p><u>Melbourne &amp; Queenstown, Permanent</u></p> <ul style="list-style-type: none"> <li>• Olympic Village in Melbourne (or Sydney?), Mountain Olympic Village in Queenstown, all sold as residential units post games, private funding.</li> <li>• All five ice rinks would be built in Melbourne as a Private-Council-Government Partnership.</li> <li>• The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>• Cross country type events in Australia.</li> <li>• Gondolas would link Cardrona and Remarkables, private funding.</li> <li>• Accommodation requirements are met, Queenstown may need expansion, private funding.</li> <li>• Media Centres are at Melbourne or Sydney, with a smaller media centre at the Queenstown.</li> </ul>	<p>Most IOC requirements met. Key issue is the Auckland-Queenstown airlink connection being acceptable to the IOC. May be underestimating Queenstown accommodation requirements. Similar to Vancouver 2010.</p> <p>Australian government could be uncomfortable with the NZ ski element.</p>	<p>Probable</p>	<p>=1</p>
<p><u>Melbourne, Auckland &amp; Queenstown, Permanent</u></p> <ul style="list-style-type: none"> <li>• Olympic Village in Melbourne or Auckland, Mountain Olympic Village in Queenstown, all sold as residential units post games, private funding.</li> <li>• All five ice rinks would be built in Melbourne (or Sydney) as a Private- Council-Government Partnership.</li> <li>• The Sliding Centre and Ski Jump facility would be in a third country.</li> <li>• Cross country type events in Australia.</li> <li>• Gondolas would link Cardrona and Remarkables, private funding.</li> <li>• Accommodation requirements</li> </ul>	<p>Most IOC requirements met though Villages and air links may be straying too far from the original Olympic Village concept for the IOC. Key issue is the Auckland-Queenstown airlink connection being acceptable to the IOC. May be underestimating Queenstown accommodation requirements. Similar to Vancouver 2010.</p> <p>Australian government could be</p>	<p>Probable</p>	<p>=1</p>

<p>are met, Queenstown may need expansion, private funding.</p> <ul style="list-style-type: none"> <li>• Media Centres are at Melbourne, with a smaller media centre at the Queenstown.</li> </ul>	<p>uncomfortable with the NZ ski element.</p>		
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