

Blue Sky – Outer T
and the 2010/11 Draft Waterfront Development Plan

SPIR and SPAR Centre of Wellington

A Discussion Document
for the Wellington City Council
Strategy and Policy Committee

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Thought Starter

- ❖ Would you believe that an ice rink is actually getting help from the sun?
- ❖ Thanks to this solar project, the University Town Center in La Jolla (San Diego) is experiencing life with solar panels and solar power.
- ❖ It is the Westfield Group who has decided to have a go with solar power.
- ❖ The solar panels that were mounted on the roof of the mall were providing half of the total power needs of the ice rink as well as the food court.

Discussion Points

- ❖ What is the SPIR and SPAR Concept?
- ❖ Who would benefit from a SPIR and SPAR Centre?
- ❖ Why would the Council be interested?
- ❖ How could it look?
- ❖ When could it happen?
- ❖ What process would be required to deliver on it?





An ugly site in the
centre of a
beautiful harbour

SPIR and SPAR

a Solar Powered Recreation Centre for Wellington

- One of the main options being looked at for the Outer T's future development involves a mix of recreational activities.
- The WWL's Blue Sky consultation has revealed pockets of interest but has yet to deliver a preferred solution.
- Many savvy Wellingtonians and organisations have yet to get involved in a formal way.
- The current Waterfront Development planning process needs to evolve to draw more people into the discussion.





The Council has recognised that it has a duty to optimise the use of the space available on the Outer T - for both residents and visitors to Wellington. One option would be an integrated Recreation Centre with an indoor Ice Skating Facility.

SPIR and SPAR

a Solar Powered Recreation Centre for Wellington

- SPIR and SPAR is short for: Solar Powered Ice Rink and Solar Powered Active Recreation.
- The Concept is consistent with at least one of the six shortlisted options from WWL's Blue Sky consultation.
- It builds on the idea of a temporary seasonal ice skating rink at Queens Wharf.
- It is consistent with the Vision Statements of both the WCC and WWL.
- It could become a reality if the Council was prepared to take a well-informed "leap of faith" in the absence of more compelling options.





An ugly site
no matter
which way
you look at
it.

The Rink - Hong Kong



- **Skating Industry Set to Change : Environmental Rink Promises Healthy Future**
- (HONG KONG, September 2007) – The future of a cleaner and greener society lies in our collective effort to protect our environment.
- The Rink is the first-ever environmentally friendly skating rink in Hong Kong and in Asia.
- The CEO of the Rink believes that taking positive action today is the only way to safeguard our future and the most responsible way forward.



奧運站
Olympic Station



九龍站
Kowloon Station

匯豐銀行
The Viceroy

龍門
The Arch

蘇丹中心
Somerset



佐敦道
Jordan Road

彌敦道
彌敦道

九龍公園
Kowloon Park



西區海底隧道
Western Harbour Crossing

彌敦道
NATHAN ROAD

彌敦道
彌敦道

The Rink - Hong Kong



- Conventional ice-skating rinks require a considerable amount of energy in ice generation.
- The Rink is an ice-skating rink of 20 x 46 metres that employs the latest absorber technology from Europe.
- This allows the skating rink to operate with significantly lower energy consumption.
- The Rink is designed to rest on a carpet of mobile rubber pipes which, with its flexibility, can be rolled back for multiple relocation and re-installation.

The Rink - 20 metres by 46 metres



The Rink - Hong Kong



- Energy savings are achieved through the use of an absorber system using a rubber carpet laid over the whole rink area for ice making.
- This increases efficiency of energy transfer by 70%, using an intelligent temperature monitoring and control system for the chillers.
- For public skaters, The Rink offers a 'pay as you skate' concept. Skaters enter the rink with their cards and pay by the minute.

The Rink - Pay as you Play



Emission-free Ice-Making



- Standard LPG, gasoline or diesel-powered resurfacing machines (as used in traditional ice-skating rinks) discharge high level of emissions.
- This creates a dangerous level of microns within an enclosed ice rink environment.
- The Rink makes use of an Italian ice resurfacing machine called ENGO.
- ENGO is an electric, battery-powered ice re-surfacer that creates no exhaust fumes and heat, and zero emissions.

The Rink - Emission-Free Ice Making



Customer Friendly



- The Rink is very customer-friendly. The 'Open Rink' design concept removes the need for ticket booths therefore eliminating queues.
- The facility has 192 lockers for safe storage and has 1,700 pairs of rental skates ready for customers.
- For residents and visitors of Hong Kong and especially those who care about the environment, The Rink is the place to enjoy a truly memorable skating experience.

The Rink - Secure Locker Storage



The Rink - In Summary

- Skating has global appeal. The industry is booming.
- It is now possible to create an emission-free indoor skating arena with artificial ice-making.
- The Rink opened in 2007 as the first environment friendly skating rink in Asia.
- Its dimensions and features make it a suitable reference point for a Solar-Powered Ice Rink on the Outer-T.
- There is a lot that could be learned about the possibilities from “The Rink” experience, and from elsewhere, e.g. San Diego and Manchester, England.





Solar Power – it works

- The CIS Tower in Manchester, England was clad in photovoltaic panels at a cost of £5.5 million.
- It started feeding electricity to the Grid in November 2005.
- Solar power has the potential to provide many times the world's total current energy consumption.
- Solar power is likely to become the most important energy source this century.

Why a Solar Powered Centre ?

- Solar Power is the renewable energy of the future.
- Wellington celebrates the power of the wind – it should now really embrace the power of the sun.
- We could create ice from the power of the sun and bask in the warm glow of global recognition.
- We need to invest wisely in a facility for our younger people – a place for families and youth (aged 4-18).
- School Groups are huge supporters and users of skating rinks and recreation centres*.

Building-Integrated Solar Power

- Building-integrated photovoltaic (BIPV) systems use solar panels to replace conventional materials in parts of the building structure, e.g. the roof, skylights, or facades.
- They are increasingly being used in the construction of new buildings as a source of electrical power.
- Existing buildings may be retrofitted with BIPV as well.
- The initial cost of BIPVs can be offset by savings on conventional building material and reduced labour costs.
- BIPV is one of the fastest growing segments of the photovoltaic industry.

- Can you see what I see - plenty of candidates for BIPV !!!
- If asked, they may be prepared to power the SPIR and SPAR Centre.
- Seriously !!!!!!!!!!!!!!!



- A few more candidates for BIPV ???
- Certainly, the occupants of many of these buildings have a vested interest in whatever happens on the Outer T.



- And what about the view from over here ???
- We need a facility on the Outer T that is in keeping with Te Papa and provides a complementary (but not always complimentary) experience.
- Savvy residents of Wellington live here !!!



Help is near at hand !!!



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