
Snowy Hydro Limited

Submission to the National Competition Council on its draft recommendation, dated 8 September 2005, on Lakes R Us' application for declaration of a water storage and transport service.

7 October 2005

Executive Summary

Snowy Hydro Limited (“**Snowy Hydro**”) welcomes the opportunity to make a submission on the National Competition Council’s draft recommendation of 8 September 2005 in respect of Lakes R Us’ application for declaration of water storage and transportation services provided, or to be provided, by Snowy Hydro and State Water.

Snowy Hydro endorses the Council’s draft recommendation that the water storage and transportation services of Snowy Hydro and State Water should not be declared under Part IIIA of the *Trade Practices Act 1974* (“**the Act**”). Snowy Hydro agrees that Lakes R Us’ application does not satisfy declaration criteria (a) and (f) because declaration would not promote competition in a dependent market and would be contrary to the public interest.

However, Snowy Hydro does not agree with all of the findings in the Council’s draft recommendation. In particular, Snowy Hydro disagrees strongly with the Council’s position on the production process exception under s 44B of the Act.

The purpose of this submission is:

- (a) to reiterate Snowy Hydro’s position that the Council’s power to make a recommendation in respect of the services is not enlivened because the services are part of a production process;
- (b) to provide the Council with information to assist the Council to ascertain that, in addition to declaration criteria (a) and (f), the Council cannot be satisfied about criteria (b) because it would be economic to develop alternative water storage and transportation facilities; and
- (c) to correct manifest errors in the Council’s draft recommendation and Lakes R Us’ application.

1 Why the production process exception in s 44B applies

General

Contrary to the position taken by the Council in its draft recommendation, the Council's power to recommend that the water storage and transportation services be declared, or not be declared, is not enlivened.

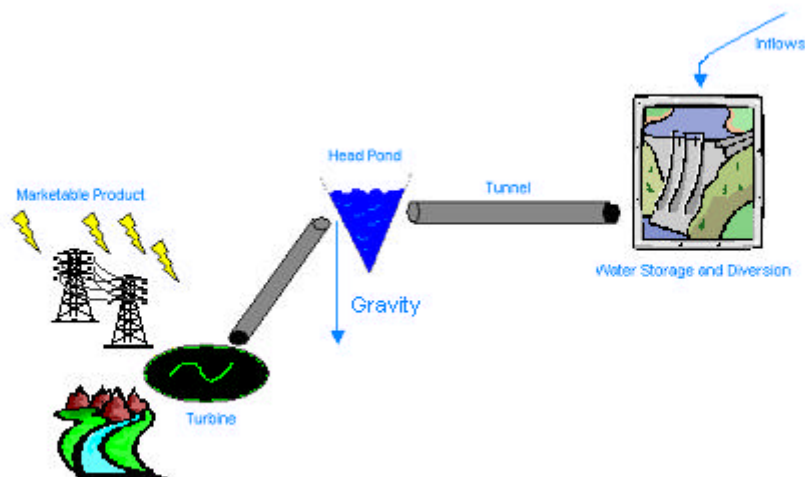
The Council's power is only enlivened if the service is a "service" as defined by s44B of the Act. Section 44B expressly provides that a "service" does not include the use of a production process except to the extent that the production process is an integral but subsidiary part of the service.

The Key Point

To express the point at its most elementary level: water (containing potential energy) is required to pass through Snowy Hydro's turbines to extract that potential energy and to convert it to electrical energy which, in turn, is used by Snowy Hydro to produce electrical power. Therefore, storing and transporting the water is (and must be) part of the process used by Snowy Hydro to produce electrical power.

Further, the process used by Snowy Hydro to produce electrical power is not a subsidiary part of the water storage and transportation services.

The process is illustrated below.



Background Facts

The Snowy Mountains Hydro-electric Scheme was constructed between 1949 and 1974 as an integrated electricity generation, water storage and diversion project. The key components of the Scheme include:

- 7 power stations and 1 pumping station
- 31 generating units

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- 3756MW of installed capacity (10% of the NEM)
 - ~4900GWh per annum of energy (3% of the NEM)
 - 600MW of pumped storage capacity
 - voltage, frequency and system restart capability
 - 16 large dams
 - 80km of aqueducts (16% of inflows)
 - 145km of tunnels
 - ~2400GL per annum of average releases of water

Snowy Hydro's operations broadly involve the following basic steps:

1. diversion of water;
2. collection of water;
3. storage of water;
4. generation of hydro-electricity; and
5. release of water.

Snowy Hydro owns the Scheme and operates it in accordance with a number of legally binding instruments, including the legally binding agreements imposed on Snowy Hydro when Snowy Hydro was corporatised. The instruments include the National Electricity Rules and the Snowy Water Licence, which was issued under part 5 of the Snowy Hydro Corporatisation Act.

The Scheme is used to generate hydro-electricity. The water collected, diverted and stored in the Scheme is used to drive the turbines, which, in turn, operate the generators that generate electricity.

The electricity generated by the Scheme is despatched/sold into the NEM. Snowy Hydro also provides ancillary services to the NEM. For example:

- the quick start capability (90 seconds) of Snowy Hydro's generators allows Snowy Hydro to provide critical black start reserve for the NEM;
- Snowy Hydro also provides voltage control services and frequency control services to the NEM; and
- Snowy Hydro provides electricity price risk management services to third parties in the form of OTC derivative contracts.

Water Storage and Transportation

Snowy Hydro transports water through the Scheme for three purposes:

1. to maximise the volume of water available for the production of hydro-electricity by (a) maximising the volume of inflows captured by the Scheme and (b) minimising the volume of water spilled from the Scheme;
2. to generate hydro-electricity and to produce electricity risk management services for the NEM in accordance with Snowy Hydro's contractual obligations and the spot price of electricity in the NEM; and

3. to meet the company's legal obligations under the Snowy Water Licence.

Maximisation of the volume of inflows captured by the Scheme is undertaken by Snowy Hydro to maximise the Scheme's capability to produce hydro-electricity and electricity risk management services for the NEM. That is, water is the energy source used by Snowy Hydro to produce electricity.

With the exception of the Snowy Montane Rivers Increased Flows (this year, 13.8 GLs) and the Snowy River Environmental Flows (this year, 38 GLs), Jindabyne base passing flow (9 GL per year), Tantangara base passing flow (3 GLs per year) and evaporation from storages, all the water stored in the Scheme is used in the process of producing electricity.

The Council states in its draft recommendation that "*it does not follow that the services provided by...the storage, release and transport of water are necessarily inputs into the production of electricity*"¹. This is not correct. Other than by spill (which reduces the quantity of hydro-electricity that the Scheme is capable of producing), or the release of minor quantities of water through river outlet works on each of Snowy Hydro's structures, there is no way of releasing water from the Scheme's storages other than through the turbines. The release of water through the turbines necessarily leads to the production of electricity. Indeed, the Scheme was designed to achieve exactly this outcome – to capture water containing potential energy and, using that water, to produce electrical power.

The only exception to this is that water can be released from Tantangara dam into the Murrumbidgee River without electricity production. However, these releases ultimately end up in the Burrinjuck Dam, which is not part of Lakes R Us' application. Also, while Tantangara Dam is not used for the purpose of generating electricity, it is used to impound the headwaters of the Murrumbidgee River for diversion through the Murrumbidgee-Eucumbene Tunnel to Lake Eucumbene for long-term storage, before being released from Lake Eucumbene for generation through a series of tunnels under the mountains to the power stations.

Thus, the storage and transportation of water through the Scheme is the process used by Snowy Hydro to produce electricity and electricity risk management services for the NEM.² Further, the electricity production process is not a subsidiary part of the water storage and transportation services.

It follows that the water transportation services described in Lakes R Us' application are not "services" as defined by s44B of the Act and the Council does not have jurisdiction to make a recommendation to the Minister in respect of declaration of the services.

2 Criteria (b) in Part III of the Act cannot be met

In its draft recommendation, the Council found that criteria (a) and (f) of section 44G of the Act could not be met because the Council was not satisfied that declaration

¹ Council's draft recommendation paper, p 18

² The expression "production process" was held by Kenny J to be "the creation or manufacture by a series of operations of some marketable commodity" in *Hamersly Iron Pty Ltd v National Competition Council & Ors* (1999) ATPR ¶41-705 AT 43,033.

would promote competition in a dependent market and was not satisfied that declaration would not be contrary to the public interest.

Snowy Hydro agrees with the Council's findings in those respects, but also submits that in addition to declaration criteria (a) and (f), criteria (b) cannot be met. That is, the Council cannot be satisfied that it would be uneconomical for anyone to develop another facility to provide the services.

Criterion in s44G(2)(b) cannot be satisfied

For the reasons set out in its earlier paper to the Council (dated 24 February 2005), Snowy Hydro reiterates that the analysis of the criterion in s44G(2)(b) is not correctly stated or analysed in Lakes R Us' application or the Council's draft recommendation.

The correct test is not whether it would be uneconomical to duplicate the Scheme itself, or whether the Murray and Murrumbidgee systems can be economically duplicated. The correct test, which is correctly stated but misapplied by Lakes R Us in its supplementary submission, is whether there is another water storage facility (or whether one could be built), which can economically and efficiently deliver water into the Murray and Murrumbidgee River systems.

Lakes R Us states that there is no other facility other than the Snowy Scheme that can economically and efficiently deliver water into both the Murray and Murrumbidgee river systems. The implicit assumption in Lakes R Us' statement is that water stored in the Scheme can be released into either of those two river systems at the discretion of Snowy Hydro. This is incorrect. Under the Snowy Water Licence and the Murray- Darling Basin Agreement, Snowy Hydro is required to operate the Snowy Scheme to achieve a strict catchment- based sharing of inflows. In this regard, the Scheme is operated as two separate Developments, the Snowy-Murray Development and the Snowy-Tumut Development, and although technically possible, the waters of each Development are not operationally interchangeable.

The relevant facilities (in economic terms) are really structures that are able to regulate catchment inflows. It would be economic to build additional storage facilities on the Murrumbidgee River and Murray River that could store water and release it towards the direction of irrigators.

The applicable test is not whether it would not be viable to build an alternative storage facility in the Snowy catchment area. The applicable test is whether it would be economic to build another facility to store and supply water to the Murrumbidgee and Murray irrigators. Clearly, the answer is that there can.

Similarly, the applicable test is not whether there are any alternative high quality water storage facilities available that have capacity to divert large volumes of water into the Murray and Murrumbidgee river systems. The applicable test does not concern the ability to divert to those rivers, it concerns the ability to store and transport water to users in those rivers. Clearly there are other economic alternatives to the Scheme.

In its February paper, Snowy Hydro listed a number of proposals for the development of downstream storage facilities for allocated water, e.g., the proposed Barren Box Swamp Project. The Council stated in its issues paper of April 2005 that in addition to the proposals listed in Snowy's paper, CSIRO has investigated the feasibility of pumping water into aquifers to store water without having to construct costly surface

dams (CSIRO 2002); and the Murray–Darling Basin Commission is investigating opportunities for increasing interstate trade for the Murray River system. DIPNR is also conducting a study into the feasibility of en-route storages on the Murrumbidgee River, which has to date identified many potential sites. There is also existing infrastructure (at Dartmouth, Hume etc) and potential new infrastructure that does not carry the externalities associated with Snowy Hydro’s electricity generation.

Therefore, the answer to the question of whether there are alternative services that may provide a substitute for any water storage and transport services which may be currently provided, or could conceivably be provided, by Snowy Hydro is clearly yes.

The existence of the proposals for the development of downstream storage facilities for allocated water and of the current extractive water rights bartering schemes indicates that the criterion in s 44G(2)(b) cannot be satisfied because it would be economic to develop another facility to provide the water storage and transportation services.

Existing Water Trading

The main economic benefits that Lakes R Us believes would be generated from the declaration of the services are already available under the existing water extractive rights bartering market, which provide irrigators with the ability to increase the yield of their current water allocations. Lakes R Us contends that irrigators could use their water allocations more efficiently if they could store allocated water for future use. In fact, irrigators are already able to trade current allocations for future water rights, in relation to precisely the same volume of water, without any of the additional costs and significant consequences in the NEM that would result from declaration of the services. The existing water rights bartering schemes are an alternative and economic means of achieving the same benefits for irrigators as Lakes R Us believes would result from declaration of the services.

Correction of errors in the Council’s draft recommendation or the Lakes R Us Application

There are a number of errors made in the Council’s draft recommendation paper and Lakes R Us’ application that Snowy Hydro wishes to correct:

1. The Council states that “*the New South Wales Government sells a right to Snowy Hydro to use the water for electricity production and also uses the facility to store and release water so that it can be used for extractive purposes downstream*”³. In fact the New South Wales Government granted but did not sell to Snowy Hydro its rights to collect, divert, store and release water. More importantly, to the extent that the statement “[New South Wales] also uses the facility to store and release water so that it can be used for extractive purposes downstream” is intended to imply that New South Wales in some way controls the storage and release of water in the Scheme for downstream uses, this is incorrect. Whilst it is true that water released from the Scheme is then allocated to extractive and environmental uses downstream, neither New South Wales nor for that matter Victoria have any right of control over the management of the Scheme.

³ Ibid, p 19

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2. The Council's statement that "*pure financial electricity risk management products...while concerned with electricity, do not involve use of the facility*" is incorrect. Snowy Hydro's Board has imposed certain risk limits, which mean that it relies on its generating capability to back its financial electricity contracts.
 3. Lakes R Us considers that the Snowy Scheme facility is underused. This shows a fundamental misconception of the design and operation of the Scheme. The Scheme's storages are designed to capture twice the variation in annual inflows, which is why it has the highest level of water storage security for all downstream water users. Any capacity in the dams exists to capture inflows, and therefore is not "spare capacity". Lakes R Us' application would reduce that level of security, which would be a reduction felt by all water users.
 4. The Council speaks of a water trading market in its paper⁴. There is not in fact a "water trading market", rather there is simply a bartering system for trade in water extraction rights. These are two very different things. Similarly, there is no market in "water lending". In addition, there is a distinction between the bartering market for the right to extract water and the market for the timing of water release rights from Snowy Hydro (which must be repaid). These arrangements are agreed outside the Snowy Water Licence with DIPNR.
 5. While it is true that "third party access to the water storage and release services would not alter the volume of water collected, or the quantity of electricity that can be generated using the water or the number of generators in the NEM", it would affect the timing of generation which has NEM-wide impacts for all NEM participants.

Conclusion

For the reasons set out in this submission, Snowy Hydro submits that:

1. the Council's power to make a recommendation in respect of the water storage and transportation services is not enlivened because the services, to the extent that they are, or could be, provided by Snowy Hydro, are the process used by Snowy Hydro to produce hydro-electricity and electricity risk management services for the NEM, and Snowy Hydro's production process is not a subsidiary part of the services. That is, the water storage and transportation services are not "services" as defined by s44B of the Act.

Even if the Council's power were enlivened it would not be uneconomical for anyone to develop another facility to provide the services

⁴ Ibid, p 28