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Dear Mr Rawstron

### **Response to draft determination on network pricing and market network service providers**

Stanwell Corporation Limited (SCL) would like to take this opportunity to lodge a submission with the Australian Competition and Consumer Commission (the Commission) on the above draft determination released on 12 December 2000. On 14 March 2001, SCL submitted a response to the Commission on the draft determination. While this response provided in-principle support for the objectives of the draft determination, we considered that there was a range of issues that needed to be addressed before the release of the final determination. This submission re-addresses these issues and in addition provides further discussion on the magnitude of the existing locational signals facing SCL.

In particular the existing locational signals facing SCL are received "loud and clear". For example, since the commencement of the Queensland Interim Market (QIM) SCL lost approximately \$110 million due to a low marginal loss factor (MLF). In addition, a further \$1.5 million was lost on account of binding transmission constraints in the winter of 1998. If transmission use of service (TUOS) usage charges are introduced they will only serve to compound the signals already applied to generators.

Other issues raised in our submission include:

- the Commission needs to consider the liquidity implications of the proposed TUOS usage charge on the wholesale electricity contract market;
- the proposed charges relating to TNSP service standards do not go far enough to encourage TNSP's to increase their service levels; and
- the introduction of property rights are essential to an equitable network pricing outcome for all market participants.

**- 2 MAY 2001**

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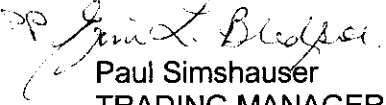
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Further to this submission, SCL wishes to indicate support for the position being put forward by the National Generators Forum (NGF) in its submission on the draft determination. In addition, SCL also concurs with the Newcastle Group Position Paper on transmission pricing.

SCL welcomes the work of the Commission and NECA in developing an effective network pricing regime and would appreciate any further opportunity to contribute towards NECA's development of the network pricing methodology later this year.

Yours sincerely

  
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**STANWELL**  
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**Submission to the Australian  
Competition and Consumer  
Commission**

**Draft Determination: Amendments to  
the National Electricity Code – Network  
pricing and market network service  
providers**

27 April 2001

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## **Introduction**

Stanwell Corporation Limited (SCL) is pleased the Australian Competition and Consumer Commission (the Commission) has released (12 December 2000) its Draft Determination on Network Pricing and Market Network Service Providers. The draft determination was released in response to applications for authorisations (A90704, A90705 and A90706) to changes to the National Electricity Code (NEC) lodged by the National Electricity Code Administrator (NECA) on 26 July 1999.

SCL would like to take this opportunity to indicate our support for the position being put forward by the National Generators Forum (NGF) in its submission on the draft determination. SCL also concurs with the Newcastle Group Position Paper on transmission pricing. In addition, we would like to raise the following issues with the Commission.

SCL provides in-principle support for the objective of the draft determination – efficient network pricing. We also welcome the Commission's adoption of NECA's proposals for a negotiating framework including recourse to dispute resolution to address the asymmetry of information and bargaining power between network service providers and their customers. However, we still consider there are a number of issues, which need to be addressed including:

- the effectiveness of existing market signals and the financial effects of constraints;
- implications for the contract market;
- introducing distortions into the market generation dispatch process;
- market-based incentives for Transmission Network Service Providers (TNSP's) and service standards; and
- the importance of property rights.

Each of these issues will be addressed in the following discussion.

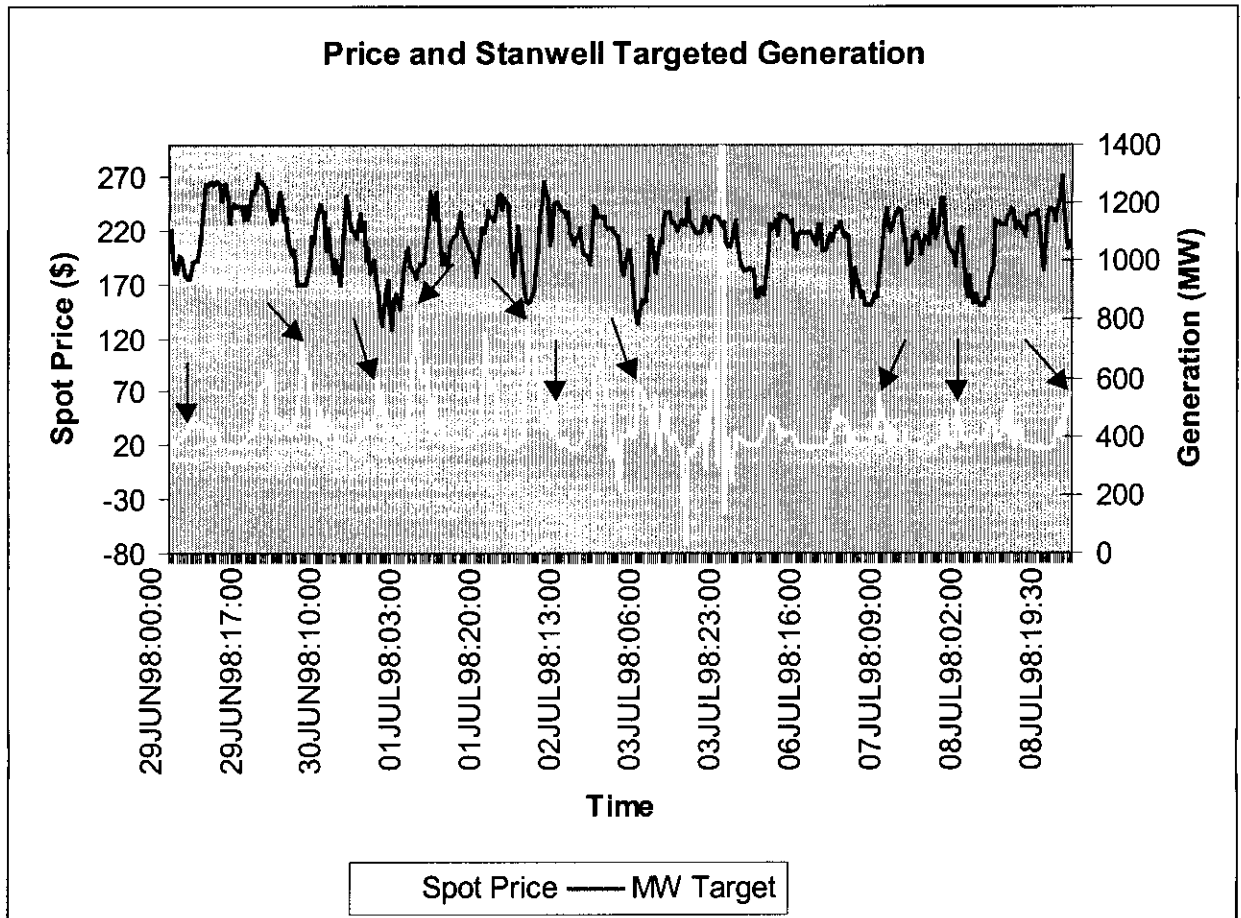
### **The effectiveness of existing market signals and the financial effects of constraints**

SCL recognises that the Commission's network pricing proposal is designed to provide market incentives for the efficient location of investments in network and generation assets. We further appreciate that all network users (not only customers) can affect the level of network congestion, losses and timing of

augmentation. However, we do not support the Commission's view that existing conditions do not provide sufficient price signals that encourage the efficient rationing of transmission resources. In addition, we do not believe that there is a need for further economic signals to be provided via transmission usage charges – marginal loss factors (MLFs) and network congestion are enough.

- Stanwell Power Station (SPS) is a 1400 MW power station situated in the central Queensland area within the single Queensland region. As SPS is located in a generation rich area, it has long been subject to a low MLF and binding transmission constraints. In actual fact, SPS has forgone lost revenue of approximately \$110 million due to loss factors from the commencement of the Queensland Interim Market (QIM) in March 1998 to April 2001. SCL has recognised and reacted to these economic signals by encouraging electricity and steam intensive industries to locate in the area. For example SCL has finalised sales contracts with AMC, a magnesium smelter which plans to locate at SPS. In short, the existing locational signals are already driving SCL's business decisions.
- Further, we would like to bring to the Commission's attention the financial implications of transmission constraints and the consequences of transmission usage charges. These are best described by examining the events of winter 1998, which presented prolonged binding transmission constraints for generators in the central Queensland area. Not only did binding transmission constraints result in lost revenue, the situation was exacerbated when units were being targeted down during peak periods while the spot price was rising (the result of more expensive plant located in south Queensland being dispatched to meet demand). This is best illustrated in Figure 1, which plots the spot price against SPS's generation targets over the period 29 June 1998 to 28 July 1998 (excluding the weekend – 4 to 5 July 1998). The arrows indicate times when SPS was being targeted down while the spot price was rising.

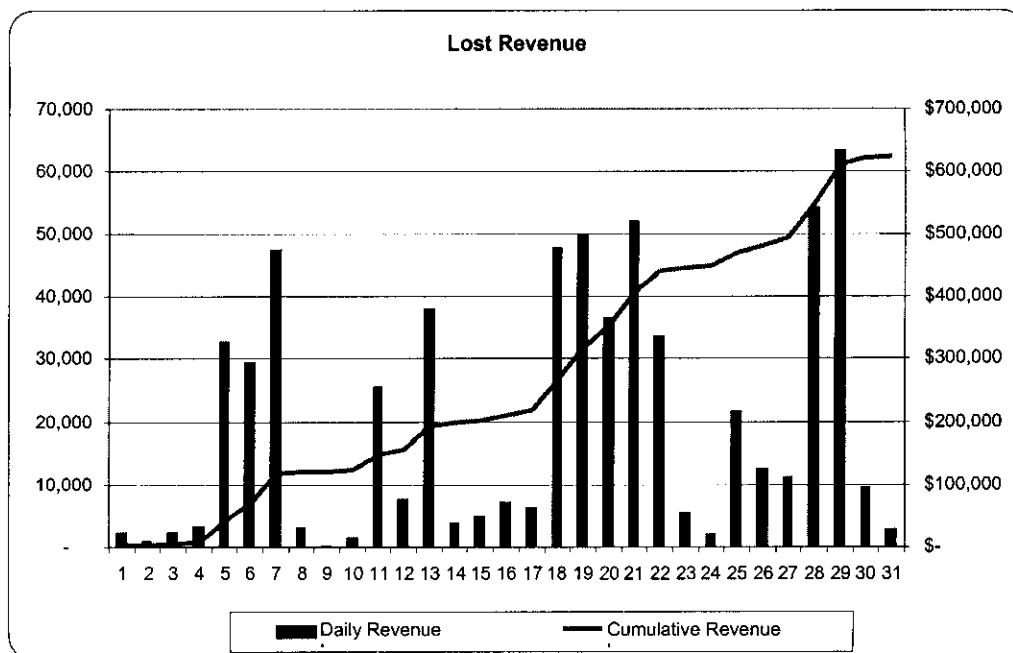
Figure 1.



- Further, Figure 2 indicates the financial affects of transmission constraints for May 1998 – a typical winter’s month. This highlights that in addition to the losses associated with MLFs, a further \$630,000 was lost through transmission congestion. In actual fact over winter 1998 SCL lost nearly \$1.5 million due to binding transmission constraints<sup>1</sup>.

<sup>1</sup>This figure has been calculated under the assumption that over the period forced partial outages were infrequent.

Figure 2





Although these examples date back to 1998, this is still a real issue facing SPS. For example on 2, 3 and 8 March 2001, SPS again faced binding transmission constraints, which resulted in just over 180 MWhs of lost generation and approximately \$10,100 lost revenue.

As indicated, lost revenue associated with MLFs and binding transmission constraints result in considerable lost revenue for a generator. The introduction of addition charges such as a locational usage charge poses a further threat to a generator's economic existence. According to the usage charge proposal, in addition to facing lost revenue and a threatened exposed position, generating corporations such as SCL would face a usage charge when they can least afford it – generators are paying for augmentation before congestion is relieved not after the event. An alternative mechanism, which allows generators to seek financial compensation when faced with binding transmission constraints and usage charges would appear a more equitable outcome and ensure that the Commission's second Principle is fully satisfied – this issue is expanded in a later section. In addition, a generator's location is based on historical decisions.

### **Implications for the contract market**

The contract market contributes to approximately 85 per cent of total National Electricity Market (NEM) revenue. The possible introduction of a usage charge for generators is producing uncertainty, which could significantly reduce liquidity in the contract market. To minimise the impact on this market, the future of the new TUOS usage regime must be finalised as soon as possible. Further, clear transitional provisions and a reasonable "glide path" to implementation must be inserted into the NEC and participants consulted during their development.

### **Introducing distortions into the market generation dispatch process**

The requirement for usage prices to reflect the level of congestion at the time the usage occurs probably implies charges will be concentrated into peak periods. If this is the case, then the price differentials could be quite large at these periods and have the potential to distort dispatch significantly (based on current costs).

The following example illustrates the potential distortion:

Suppose that TUOS customer usage charges are \$3/ MWh in a demand rich area and -\$3/MWh in a generation rich area the charge is being levied in a winter peak period. This means that the charge could be approximately 5 times as large. In this case:

- An open-cycle gas turbine located in the demand rich area has an effective marginal cost of \$25/MWh (\$40/MWh marginal fuel cost - \$15/MWh TUOS rebate). When taking the MLF (1.05) into account the effective marginal cost becomes \$23.75/MWh.
- A lower cost thermal installation located in the generation rich area has an effective marginal cost \$25.50/MWh (\$10.50/MWh marginal fuel cost + 15/MWh TUOS). When taking the MLF (0.925) into account the effective marginal cost becomes \$27.00/MWh

Assuming that generators incorporate the TUOS usage charge into their bid prices, in the above scenario the higher fuel cost (and environmentally inferior) generator would be dispatched ahead of the low fuel cost generator. As a result, low cost generators would be at less than full load, while high cost generators are at full load and a less than efficient utilisation of the transmission system results. This distortion evident in the above scenario highlights the problems with using long run marginal cost (LRMC) signals for transmission pricing in a short run marginal cost (SRMC) spot market.

## **Market based incentives for TNSPs and service standards**

SCL is pleased that the Commission accepts the need for published service standards and benchmarking, and would welcome the opportunity to review the *Draft Regulatory Principles* addressing this issue. However, on this issue we do not consider the Commission's draft conditions of authorisation go far enough. While the Commission recognises that market-based incentives would go a long way to ensuring service standards are met, it argues these may not always be

easily defined and some recourse to more traditional and technical standards may be necessary.

We do not consider this is the case and suggest the Commission further investigate the possibility of market-based incentives for TNSPs. This is a particular issue for generators in generation rich areas because under the draft determination they are to pay TUOS usage charges on a symmetric basis to customers. This being the case they should also be subject to the same service standards. However, the existence of network constraints arising from network outages means this is not always the case. Failure to provide access in the form of constraints represents a reduction in service.

This has been a problem for SCL in the past, where network augmentation and maintenance has reduced the capacity of the transmission lines flowing into north Queensland. Further, in some cases, this resulted in requests for SCL's hydro power station, Barron Gorge to run to support local demand in the area during the network outage.

A proposed market based incentive would be to require TNSPs to compensate generators for constrained on or off generation during network outages (particularly planned outages).

## **The importance of property rights**

SCL recognises NECA and the Commission have taken several steps in this proposal to overcome the lack of property rights evident in the NEC. These include developing and publishing service standards (discussed earlier), establishing a negotiation framework and ensuring the Commission takes service levels into account when regulating transmission revenues. These measures go some way to overcoming the lack of property rights, however, there are a number of essential issues which still have not been addressed including:

- “firm” access is not assured once augmentation occurs;
- there is no guarantee that augmentation will occur in particular areas although local generators or customers have paid in advance for augmentation;
- firms may enter or exit the industry before augmentation (i.e. those paying may not be the ultimate beneficiaries of the augmentation); and
- free-riders.

The following discussion addresses each of these issues in turn.

### ***“Firm” access***

SCL appreciates that under the current system where generators are not required to pay TUOS usage charges, “firm” access is a negotiated service. However, if generators are required to pay TUOS usage charges then they should be entitled to a minimum standard of service or able to claim financial compensation for periods when constrained on or off. It should be noted that compensation discussed in this section differs from the compensation discussed in the previous section, which addressed compensation resulting from network outages. Compensation in relation to “firm access” relates to claiming compensation for being constrained on or off due to binding transmission constraints.

We recognise that the minimum levels of service need to be established and developed in conjunction with interested parties. Under such a system, generators would then have the option to negotiate with TNSPs for higher standards of service. However, given the monopoly nature of TNSPs, these negotiations would need to occur within a regulated framework.

Further, the lack of “firm” access is not consistent with the Commission's second Principle, which states that TUOS usage prices must send equivalent signals to all transmission users. However, generators would not be faced with symmetric service levels due to binding transmission constraints.

### ***Guarantee of network investment and changing market participants***

SCL appreciates that under the Commission's proposal, many issues surrounding the TUOS usage charge framework will arise when NECA develops the TUOS pricing methodology. However, there are still a number of issues SCL considers should be addressed at this stage including guarantee of network investment and changing market participants.

Under the TUOS usage regime – generators and customers incurring a charge are essentially pre-paying the cost of augmentation. However, these generators and customers are not assured that augmentation will occur. TNSPs should be

required to publish future network investment plans and invite interested parties to become involved in the augmentation planning process.

Further, the proposed TUOS usage charge regime raises equity issues. Due to the possibility of changing market participants, once augmentation occurs there might be a mismatch between beneficiaries and investors. This problem could be overcome by issuing property rights, which can be transferred.

SCL appreciates that it is unlikely that major market participants will exit the market in the short to medium term (due to the extensive capital investment associated with building and maintaining power stations). However, smaller players (who could be associated with renewable energy projects) may enter and exit the industry as economic and demographic conditions change.

### ***Free-riders***

While SCL recognises that the proposed TUOS usage charge arrangements may promote the efficient allocation of resources, we consider that free-riders will appear as property rights have not been assigned.

We appreciate the fact that a generator locating in a demand rich area will have to take into account that the existing TUOS usage rebates will fall or will be eliminated once it locates. However, whether free riders do appear will depend on how well the TUOS congestion charges or rebates reflect the actual costs of congestion. There are two ways to overcome this problem – introduce property rights or the requirement for new generators locating in a generation rich area, which has recently undergone augmentation, to make undertakings. These undertakings would be designed to ensure that the new entrant does not disadvantage those participants who have invested in the augmentation. A possible undertaking could be the new entrant is only able to operate within specified periods where there is little risk of binding transmission constraints.

### **Conclusion**

SCL considers that while the objective of the TUOS usage charge proposal has merit, there are still some fundamental issues, which have not been addressed. These include:

- recognising that existing market signals are working and that the introduction of a TUOS usage charge will only serve to compound the signals applied to generators when they are already facing lost opportunity due to binding transmission constraints;
- the Commission needs to consider the liquidity implications of the proposed TUOS usage charge on the wholesale electricity contract market;
- the proposed charges relating to TNSP service standards do not go far enough to encourage TNSP's to increase their service levels; and
- the introduction of property rights are essential to an equitable network pricing outcome for all market participants.

In addition, SCL would like to indicate its support for NECA's proposed timetable change. The new timetable would provide NECA with more time to adequately consult market participants during the development of the network pricing methodology.