Our Ref: 01/5605-2

12 August 2003

Mr Sebastian Roberts
General Manager
Regulatory Affairs - Electricity
Australian Competition and Consumer Commission
PO Box 1199
DICKSON ACT 2602

Dear Sebastian

GHD's report on Transend Networks' revenue cap application – additional comments

Transend Networks ("Transend") wrote to the Commission on 23 July 2003, indicating its intention to provide further detailed comments on the numerous inaccurate and misleading statements made by GHD in its report on Transend's revenue cap application. This submission provides that detailed commentary in relation to the following matters:

- Market changes;
- Risk-based assessment;
- Efficiencies;
- System Controller role;
- Service benefits;
- Security and planning criteria;
- Renewal capital; and
- Southern Augmentation

Although GHD's report contains a number of further minor errors, inconsistencies and misleading comments, Transend has restricted its comments to those matters that it considers to be material to the revenue setting process. Transend would be pleased to discuss any of the issues raised in this submission with the Commission or with interested parties.

If you have any questions about the information contained in this submission, please contact Stephen Clark on 03 6278 6126.

Yours sincerely

[original by mail]

Michael Green
A/Chief Executive Officer

Encl.

ATTACHMENT: GHD'S REPORT ON TRANSEND'S REVENUE CAP APPLICATION – TRANSEND'S ADDITIONAL COMMENTS

Market changes

GHD's final report makes the following observations regarding Transend's future operating environment:

> 'Major changes have or will occur in Transend's operating environment, including natural gas competition for energy, NEM entry and wind power development, which collectively create significant uncertainties for Transend in terms of management and operations, forecasting loads, ensuring system reliability and identifying appropriate levels of future Capex and Opex. Consequently, Transend will be required to undertake new activities to meet the responsibilities of operating in a wider and more complex market, and the increased activity in Tasmania by generators. Conversely, the market changes are intended to increase competitive pressure on all market participants and provide benefits to customers in terms of reduced net prices for energy services and/or increased service performance: these aspects will need to be considered by Transend in its operations and planning.' (Page i)

GHD's report correctly acknowledges that Transend will face major changes in its operating environment in the next regulatory period. However, GHD also suggest that NEM entry should provide competitive pressure on Transend to reduce its costs and increase service performance. In Transend's view, GHD has a mistaken understanding of the purpose of Tasmania's entry to the NEM and the benefits that should accrue from it. In particular, NEM entry has no role to play in regulating TNSPs or in applying competitive market pressures as a substitute for regulation.

In reality, transmission has an essential role in enabling market participants to exploit the opportunities arising from NEM entry. Therefore, while GHD implies that Transend's required increase in transmission revenue is inconsistent with the purpose of NEM entry, this is not the case. In fact GHD's report later acknowledges the facilitating role played by transmission:

> 'Ideally from a market perspective the transmission system should have the capacity to allow any pattern of generation that is available at the time.' (page iii)

Transend's existing transmission system falls short of the 'ideal' described by GHD. Unlike most systems in the NEM, transmission constraints in Tasmania impact on generation patterns on a regular basis. Pages 9-10 of Transend's revenue cap application list the present constraints identified by the System Controller. Transend has proposed capital expenditure that relieves some, but not all, of these constraints. In doing so, Transend has explicitly recognised the need to make improvements gradually, having regard to the costs and benefits of additional capital expenditure.

GHD's recommendations in chapter 6 that all wind-related augmentations be excluded from the regulated asset base would further distance the Tasmanian transmission network from the 'ideal'. In fact, it risks limiting the benefits of NEM entry, which GHD has wrongly perceived to be lower transmission costs and prices for all.

In our view, GHD's conclusions have placed undue emphasis on revising Transend's capex and opex forecasts downwards, rather than taking an objective view of Transend's future expenditure requirements. GHD's report does not quantify the risks and associated costs which this reduced level of expenditure would impose on Transend and its customers.

Risk-based assessment

GHD seeks to justify their proposed reduction in Transend's forecast capex and opex by noting deficiencies in Transend's asset information and investment decision-making processes as follows:

> 'GHD considers that this level of data and knowledge of assets is not fully adequate as a basis for determining renewals and maintenance requirements. Areas of shortfall occur in further decision-making data and knowledge, including failure consequence data and performance information (eg. reliability) which would support the IT systems identified above.' (Page 28)

Transend accepts that its data and knowledge need to improve, and steps have been taken to address existing gaps. However, GHD's report later criticises Transend for not using data which GHD acknowledges is unavailable. In particular, GHD comment as follows:

> 'However, no evidence of a comprehensive risk, cost-benefit or impact analysis was sighted. No clear evaluation of the consequences of undertaking an alternative course of action was considered. That is, a Condition Based Assessment (CBA) has been undertaken, but no assessment has been made to discover what the risk consequences would be if maintenance was delayed for 1 year or even longer. GHD is of the opinion that, as in the case of SPI PowerNet, more use should be made of historical data when projecting maintenance cost requirements. While GHD fully endorses the use of CBA, this must also be tempered with historical data and future Asset Management Plan rationalisation.' (Page 73)

> 'Transend has not followed an adequate cost-risk trade-off or budget rationalisation process involving its customers, nor have the reliability impacts of any project been quantified. This means that the Capex rationalisation process must be undertaken on a subjective basis as part of the Commission's decision.' (page iv)

GHD's conclusion assumes that if better knowledge and data were available, it would show that Transend's forecast capital expenditure could be deferred. In Transend's view, there can be no substantiation of GHD's conclusion because the required data and knowledge is not available. If it were available, it could equally show that capital expenditure should be brought forward, rather than deferred. GHD's report does not consider this possibility.

The development of Transend's maintenance and renewal forecasts cannot always incorporate the type of detailed cost-benefit or impact analysis GHD seeks. Such analysis requires access to sufficient asset failure data for all Transend assets, which GHD acknowledges is not presently available. In contrast to distribution businesses, which tend to have large populations of similar assets, transmission businesses tend to have far more diverse asset bases. Given the relatively small population of asset types within Transend's system, analysis based on Transend's asset history is unlikely to be

statistically valid. In the absence of this data, Transend has adopted renewals and maintenance programs based on an issue-strategy model:

- The strategy adopted to address identified issues is based on benchmarked practices for industries operating in similar environments, and discussions with manufacturers and service providers.

- Transend extensively utilises its networking with CIGRE panel members, International Transmission Utilities, local benchmarking forums comprising of Australian and New Zealand TNSPs. This networking information includes international asset failure rates. Transend discussed a sample of these benchmarking reports with GHD.

- Based on this information, the alternative courses of action are considered. The most appropriate course of action is undertaken to address the issue (in some cases Transend may adopt a 'do nothing' approach).

It is important to understand that this approach implicitly incorporates consideration of risk/cost/service level tradeoffs, using all the presently available information. Transend therefore rejects the suggestion that its investment decision-making process is deficient. Transend's current approach makes best use of the available data and knowledge, recognising that information gaps cannot be fully addressed in the short-term and that even in the long-term Transend-specific asset data may not be statistically valid.

In any event, GHD is incorrect in arguing that capital expenditure has not been subject to any explicit cost-risk trade-off, consultation with customers or analysis of reliability impacts. In particular, Transend notes that almost all development projects included in the revenue cap application have already passed the regulatory test. The regulatory test requires detailed analysis of alternative options (including the 'do nothing' option) and explicitly considers reliability impacts. The regulatory test also involves a detailed consultative process.

In summary, Transend cannot accept that the deficiencies claimed by GHD justify a subjective reduction in Transend's capital or operating expenditure forecasts. In our view, such an approach would not be consistent with the prudent stewardship of the transmission system.

Efficiencies

GHD makes the following observation with regard to Transend's culture:

> 'The organisation appears to have a strong technical and service culture, but with a low emphasis on cost efficiencies and the need to consider cost impacts in all decisions.' (page iv)

In Transend's view, this statement is inaccurate. Transend has operated in an environment where the state regulator made an inappropriately low operating expenditure allowance for the present regulatory period. For the first two years of this determination, Transend endeavoured to limit operating expenditure to the level

established by the Regulator. To achieve this, the organisation had to be acutely aware of exploiting all opportunities for potential efficiency.

Transend's board subsequently accepted that the regulatory allowance was insufficient, given the scope of Transend's operations. The board sanctioned an additional $3 million of opex across Transend's business in the year to 30 June 2003, providing that strict budgeting provisions were met.

In our view, GHD's statement regarding Transend's culture is unsubstantiated. It wrongly implies that the company has not been subject to strict budgetary control, and inappropriately implies that there is scope for substantial efficiency gains.

System Controller role

GHD observations regarding the System Controller function suggest that GHD has misunderstood the future arrangements. For example, GHD makes the following comments on the System Controller function:

> 'The Application outlines that a key Opex influence is NEM entry, which includes many additional activities such as the *duplication* of System Controller functions…' (page ii) [*emphasis* added]
>
> 'The transfer of the System Controller into Transend's cost structure incurs an increase in costs as a result of the decision to maintain a System Security process backup that *mirrors* the NEM control system. The maintenance of the *duplicate* system was reviewed and deemed appropriate by the Tasmanian Government when the NEM/Basslink was approved.' (page viii) [*emphasis* added]
>
> 'These [system controller related] costs continue to be incurred as a result of the decision to maintain a System Security process backup that *mirrors* the NEM control system. The maintenance of the *duplicate* system was extensively reviewed and deemed appropriate by the Tasmanian Government when the Basslink was approved, however GHD considers that a closer analysis of the extent of the duplicate system should be undertaken. GHD's understanding is that other stakeholders expected these additional costs would be less significant.' (page 68) [*emphasis* added]

These statements misleadingly suggest that there is 'duplication' of System Controller functions and that this contributes significantly to the increased revenue sought. The 'duplication' that arises upon joining the NEM applies only to the capability to restart the system and to control the system after a major system disturbance. This level of 'duplication' is fully justified.

There is no other System Control 'duplication' incorporated in the revenue cap application. However, there are a number of roles presently undertaken by the System Controller (and paid for by System Controller fees) that will revert entirely to Transend as a TSNP after NEM entry. This is not duplication, or an increase in costs, but a change in the cost recovery mechanism.

Service benefits

GHD make the following observations with regard to the benefits of Transend's proposed capital expenditure:

> ‘The combined effect of the Opex and Capex proposals in the Application is a significant increase in revenue from historical levels. However, it is difficult for stakeholders to assess the service benefits that may flow from the proposed substantial increases in revenue.’ (page ii)

This statement wrongly implies that the proposed capital expenditure will provide substantial increases in service levels, and therefore that stakeholders should be able to consider whether the benefits outweigh the increased costs. However, delivering substantial improvements to service levels does not primarily drive Transend’s proposed expenditure.

While there are a number of development capital projects to meet load growth and achieve Code compliance (including the Southern Augmentation, the reactive support program and Mowbray substation), much of the expenditure is focussed on renewing and maintaining the existing asset base; meeting the requirements of entering the NEM; and facilitating the expected increase in wind generation. Therefore, whilst the trade-off between service level and revenue is an important issue, it is not a key reason for the proposed increase in revenue.

In summary, Transend’s proposed capital expenditure is consistent with maintaining, rather than improving, service levels. Transend does not believe that its customers or the Commission would countenance a reduction in service levels.

Security and planning criteria

GHD make a number of comments regarding Transend’s security and planning criteria which show that GHD has misunderstood the role of these criteria:

> ‘Transend has in the past been applying the market test to each project because it did not have a rigorous set of criteria for motivating reliability based network augmentations. Now Transend has set up security and planning criteria, a number of projects will be developed on the basis that they are needed to meet the minimum network performance requirements. The regulatory process as it currently stands is that a security/reliability augmentation is not disputable by the Regulator. If Transend customers do not agree with the criteria then they could be paying for levels of security and reliability they do not want’. (page 38)

> ‘There does not appear to be sign off or agreement by the regulator or Transend customers on the security and planning criteria that Transend has used as the basis for some capital works. If the total improvements are not warranted, i.e. customers aren’t willing to pay for the improvements, then some of the capital works may not be justified. The magnitude of this is not possible to define until some agreement on the criteria to be applied is reached.’ (Exec summary and page 55)

> ‘Now Transend has established security and reliability criteria they can justify projects on the measurable service standard.’ (page 55)

These statements misleadingly suggest that Transend’s use of security criteria is now the sole basis for justifying future capex projects. However, page 44 of Transend’s revenue cap application clearly explains the criteria are only to be used as a forecasting tool:

> 'In theory, Transend could forecast its development capital expenditure requirements by undertaking a preliminary assessment of whether prospective augmentations were likely to maximise net market benefits. However, such an approach would be data and resource intensive. …'
>
> Therefore, as an alternative approach Transend has used system security criteria that could apply under Route (a) of the regulatory test. Applying these criteria should produce investment decisions similar to those that would be produced if prospective developments were tested in accordance with the market benefits test.'

Transend notes that the Southern Augmentation project, Norwood-Scottsdale-Derby line and Mowbray substation have now been approved by the Reliability and Network Planning Panel using the regulatory test. This provides assurance that Transend's forecasting methodology is soundly based.

Transend considers that the GHD statement that 'the magnitude of this [impact of the security criteria] is not possible to define until some agreement on the criteria to be applied is reached' is also inaccurate. Only two projects have been included based on security and reliability criteria. The cost of these two projects therefore 'defines' the magnitude of the security criteria impact. GHD notes this point earlier in its report:

> 'It should be noted that in the Application only two development projects could possibly fall into this category [of being included based on the security criteria]. These are George Town 220kV and Sheffield Security with a total budget of $6.5 million. Further discussion is provided in Section 6.7.2 of this report' (page 38)

In any event, GHD's report notes that both the Sheffield and George Town projects appear to be 'technically appropriate' (page 43). Therefore, GHD's own report concludes that the application of the security and reliability standard has identified projects which are technically justified. GHD's negative commentary on Transend's use of the security and reliability criteria is unwarranted.

Furthermore, GHD misunderstands the scope of the security and reliability criteria as demonstrated by the following comment:

> 'In assessing the renewal expenditure it is not clear to GHD as to which renewals are being driven by the reliability criteria on which Transend has based its capital expenditure program.' (page 51)

Transend has previously advised GHD that the security and planning criteria are applied only for the purposes of forecasting development projects. The criteria have not been used to forecast renewals expenditure.

Renewal capital

GHD makes the following observation with regard to Transend's asset replacement program:

> 'While the documentation shows that the replacement program has been ongoing since 1998 there appears to be little work carried out in the last two years, 2000 to 2002, on 110kV circuit breaker renewals.' (page 50)

This conclusion is misleading.

Over the last three years, all 110kV circuit breakers at one major substation were replaced by GIS. The completion of this project was delayed due to some contractual and technical reasons, but has now been commissioned. This meant that fourteen 110kV breakers were commissioned in the 2002-03 year, although the required work has taken place over the previous 3-year period. It is therefore not true to say that there has been 'little work carried out in the last two years on 110kV circuit breaker renewals.'

In any event, GHD's analysis does not provide any firm footing for its recommendation to defer the 110kV CB replacement program.

Southern Augmentation

GHD makes the following observations with regard to the proposed Southern Augmentation project:

> 'The Southern augmentation project was qualified by the R&NPP in its endorsement on the 220kV component as Transend was still having discussions with a developer on a proposed gas fired power station. This may avoid some of the augmentations, but the indication to date is that the power station project is not commercially viable and as such unlikely to occur. As the Commission has a claw back mechanism on Capex it is considered prudent to allow the whole projected expenditure. (page 42)'

Transend has previously advised GHD that while a gas-fired generator may reduce the need for some Southern Augmentation capex, it would not reduce Transend expenditure. This is because a generator would almost certainly require a substantial Grid Support payment – perhaps equal to the avoided augmentation cost – to contribute to its viability. Transend is continuing discussions with a possible proponent, but based on the available evidence to date, a large-scale Gas-fired generator is unlikely to be commercially viable in the Hobart region over the forthcoming regulatory period, even with the Grid Support payment.