VENCorp
Victorian Energy Networks Corporation

Office of the Chief Executive Officer
Victorian Energy Networks Corporation
Level 2 Yarra Tower
World Trade Centre
Siddeley Street
Melbourne Vic 3005
Telephone (03) 8664 6500
Facsimile (03) 8664 6510

19 July 2007

Mr Steve Edwell
Chairman
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001

Dear Steve

Reconciliation of VENCorp Electricity Transmission Network Revenue Proposal for the Period 1 July 2008 to 30 June 2014 with the 2007 Electricity Annual Planning Report

I am pleased to provide you with VENCorp's reconciliation of its Electricity Transmission Network Revenue Proposal for the Period 1 July 2008 to 30 June 2014 with the 2007 Electricity Annual Planning Report (EAPR).

The changes to the revenue proposal arise for one of two reasons:

- Additional studies undertaken for the 2007 EAPR; or
- Changes in cost estimates.

Further details on each of these can be found below.

2007 Electricity Annual Planning Report

One of VENCorp's responsibilities is the production of the EAPR. The EAPR is intended to assist interested parties in identifying, and putting forward options to relieve existing or potential constraints. This facilitates the economic development of a safe, secure and reliable shared transmission network.

Some of the key highlights from the 2007 EAPR include:

- Summaries of eleven detailed probabilitistic assessments conducted analysing constraints across the Victorian shared transmission network. A new small transmission network asset has been identified to address a constraint caused by the Hazelwood 500/22 kV transformers;
- A number of changes to the shared transmission network are now committed:
  - establishment of a second 1,000 MVA 500/220 kV transformer at Rowville;
  - establishment of a second 1,000 MVA 500/220 kV transformer at Moorabool; and
  - rearrangement of the Hazelwood 220 kV switching configuration, which includes fault limiting reactors at Jeeralang.
- The five year analysis shows fault levels at 220 kV. 66kV and 22 kV are:
  - approaching the circuit breaker interrupt capability at a number of terminal stations; and in some cases are forecast to exceed their capability over the next five years;

- above 95% of the lowest circuit breaker interrupt capability at eleven 220 kV terminal stations during the 2006/07 summer. This indicates that augmentations at or in the vicinity of these stations are likely to include fault level mitigation.

- Wind farms (i.e. non-scheduled generating units) and other types of embedded generation are expected to increase short circuit currents at 220 kV, 66 kV, and 22 kV buses, depending on their size and location.
- The Strategic Fault Level Review and Fault Level Working Group work continues and is targeted for completion by the end of 2007. The conclusion of the review may require fault level augmentation over the EAPR forecast horizon.
- This year's EAPR introduces two new terms for demand and energy:
  - 'Scheduled' replaces the term 'annual' used in previous EAPRs; it means electrical power supplied and met by scheduled generating units (only).
  - 'Native' is a new term; it means electrical power supplied and met by both scheduled and non-scheduled generating units.
- The Scheduled energy forecast is higher than published last year, because of higher economic growth projections. However, this effect is balanced by:
  - a projected increase in non-Scheduled generation (such as wind power); and
  - the assumed introduction of a carbon trading scheme (or similar), being phased-in from 2012/13 to 2017/18.
- Looking beyond the five year horizon numerous constraints have been identified which could occur at various locations. Possible solutions to alleviate these constraints have been identified which have a total capital cost ranging from about $500M to $1,100M depending on where generation locates within the system to meet demand growth.
- Substantial revisions to the cost estimates for a number of projects from the 2006 EAPR to reflect. This matter is addressed in more detail in the next section.

A copy of the 2007 EAPR has been attached.

Revisions to cost estimates

As you will note that there have been some substantial revisions to some of the cost estimates in the 2007 EAPR that were provided as part of the revenue proposal. The reason for the changes arise from improvements to SP AusNet's cost estimating processes. As was noted in the revenue proposal VENCorp uses cost information supplied by SP AusNet when producing our EAPR. This information is only published following discussion with SP AusNet and comparisons with publicly available information.

Prior to the 2007 EAPR SP AusNet estimated costs using a 'Greenfield' desk top approach which applied to cost estimates used in the revenue proposal. VENCorp's experience in recent years has been that project contract prices have been higher than initial planning estimates.

SP AusNet has now moved to a 'Brownfield' approach that makes provision for all the likely capital costs expected to meet VENCorp's implied functional requirements at the site in question.

SP AusNet has informed VENCorp that the revisions of estimates between the revenue proposal estimates and the 2007 EAPR are driven by a combination of the following factors:

- The information supplied in the revenue proposal was based on cost data collected in 2000-2004. Since that time there has been a significant increase in costs. For example recent work undertaken in the last two years indicates that design and transformer costs have typically doubled in the last 5 years; tie transformer costs have increased in costs more than other units in some cases by 300 per cent and construction costs are typically 50 per cent higher.

- Previously excluded costs planning estimates excluded typical allowances for risk in VENCorp contracts.

- Additional allowances for protection and control requirements not specified.

- The recognition of 'Brownfield' costs that are likely to be incurred for associated project activities (e.g. latent soil conditions, old sewerage works, incorrect design information, costs to work around outage constraints).

- Allowance for all work to meet functional requirements (e.g. the Hazelwood transformer and 2x500kV circuit breakers will probably require upgrades to the existing buswork, support structures and replacement of protection, earth grid extension, moving fences, drains, new cable trenches, control room extension and new protection & control schemes). However further investigation will be required to confirm exactly the extent of this work.

- Practical site specific constraints that would need to be overcome (e.g. access, space, planning and environmental requirements) as known to be an issue in the 2005 metro 500kV projects. and

- Allowances for project specific costs such as secondary upgrades, latent site conditions & control room upgrades.

In summary, the increase in the planning cost estimates represents a combination of the current economic environment and a detailed assessment that accounts for likely 'Brownfield' factors in delivery of the works.

Despite the additional detail considered, we note that the cost estimates have still been provided with a range of ± 25 per cent. This accounts for recent pricing information which suggests that prices are continuing to rise, driven by demand for commodities, resources and infrastructure assets.

However for the purposes of the reconciliation, VENCorp has elected ***not*** to add the + 25 per cent cap as set out in its revenue proposal. While this approach presents a risk that within the regulatory period VENCorp may exceed its revenue cap it believes that this approach is the most prudent approach to adopt at this stage.

Should the AER seek more accurate cost estimates VENCorp is willing to provide this information but notes that it will require additional time and expenditure, for which it has not made an allowance. VENCorp does not consider it efficient for it to devote the additional time and expenditure given that operation of the derogation means that it cannot automatically recover any revenue allowance set by the AER in its revenue cap.

As was outlined in the revenue proposal the transmission revenue and price regulation regimes (including the associated procedures) set out in Chapter 6A of the National Electricity Rules (NER) have been modified, in so far as they would otherwise apply in respect of services that VENCorp

provides in connection with the use of the Victorian transmission network, by the provisions of the derogation contained in clauses 9.8.4B to 9.8.4F of the NER, in particular clauses 9.8.4(a)(2), 9.8.4A, 9.8.4C(a2); 9.8.4B(a) and 9.8.4F(a)).

Under the framework in which VENCorp operates it is only able to recover those charges that are required to meet its statutory electricity related functions. Actual charges will be based on the outcomes of the efficient operating costs consistent with the outcomes regulatory test assessments, competitive tendering provisions or directions of VENCorp through the regulatory period. They will only be charged the amount that VENCorp requires to meet the actual costs of providing these services.

VENCorp believes that the AER has the ability to consider this information in a different manner to the way in which it considers information presented by other TNSPs. This is because of the operation of the derogation and that the 'circumstances' required to meet its 'regulatory obligations'.

Attachment 1 reconciles the planned augmentation expenditure as set out in the revenue proposal with Chapter 5 of the EAPR.

Other factors which may affect VENCorp's revenue not considered in the 2007 EAPR

There are a number of other factors which were not considered in the 2007 EAPR but which may have a significant effect on the level of expenditure that may be required over the regulatory period including:

- Desalination plant in south-east Victoria - the Victorian Government recently announced a commitment to construct a Desalination plant near Wonthagi in south-east Victoria by around 2010. At this stage there is insufficient information to ascertain the impact of the construction of the plant on the shared transmission network.
- Review of the Value of Customer Reliability - VENCorp will be conducting a review of the VCR towards the end of 2007. Changes in the VCR may alter the timing and viability of potential augmentations over the regulatory period.
- Sustained impact of the drought – No modelling has been conducted on the sustained effects of the drought on generation operation and location as well as transmission flows. Detailed investigations may reveal the need for new augmentations to specifically deal with such altered transmission flows.
- Acquisition of easements – following the release of Vision 2030 VENCorp has commenced a detailed review of the available land and easements to identify the potential additional capacity they can accommodate, as well as any measures required to protect future access to easements and sites required to meet future needs outlined in this vision. The findings of this review may drive the acquisition of land and/or easements to secure future transmission pathways.

At this stage VENCorp has not made a specific allowance for any of these but notes that should it need to do so during the regulatory period it may need to use the re-opening provisions in Chapter 9, Part A of the NER to address it.

Planned augmentation expenditure

Taken together the value of the forecast augmentation expenditure program is $288 million over the regulatory period. As with the revenue proposal, the cost of the predominantly generation driven works are aggregated and then smeared equally over the period 2010/11 to 2013/14 inclusive.

Table 1 –Planned Augmentation expenditure – year on year

	$(millions) real excluding GST					
	2008/09	*2009/10*	*2010/11*	*2011/12*	*2012/13*	*2013/14*
Planned Augmentation expenditure	2.60	9.30	43.34	74.84	75.84	82.24

Planned augmentation charges

As was noted in the revenue proposal the planned augmentation charges have been calculated assuming:

- a nominal vanilla Weighted Average Cost of Capital (WACC) of 8.5 per cent; and
- straight line current cost depreciation charge over 30 years, which is the average of VENCorp's current committed projects and is also the likely timeframe over which a number of the contracts will be entered into for the identified projects..

We note that the planned augmentation charges did not include a provision for operating and maintenance expenditure and therefore the charges may not adequately reflect the charges that VENCorp may reasonably incur in the provision of transmission services in Victoria. For the purposes of this reconciliation we have included made an allowance of 1.5 per cent of capital costs per annum.

Table 2 –Planned Augmentation Charges

	$(millions) nominal excluding GST					
	2008/09	*2009/10*	*2010/11*	*2011/12*	*2012/13*	*2013/14*
Planned Augmentation charges	0.4	1.4	6.9	14.0	18.0	22.5

Total Revenue Requirement

Based on all of above components our estimated total revenue requirement for the period ending 30 June 2014 is set out in Table 3.

Table 3 – Total Revenue Requirement

	$(millions) nominal excluding GST					
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14
Operating and Planning Expenditure	6.7	7.0	7.2	7.5	7.7	8.0
Planned Augmentation charges	0.4	1.4	6.9	14.0	18.0	22.5
Committed Augmentation charges	22.9	23.6	24.3	25.0	25.7	26.5
Total forecast expenditure for VENCorp	**30.0**	**32.0**	**38.4**	**46.5**	**51.4**	**57.0**
*Prescribed Services charges**	370.0	393.5	418.6	445.2	473.5	503.7
Total Revenue Requirement*	**405.0**	**430.5**	**462.0**	**496.7**	**529.9**	**565.7**
Energy (GWh)**	*52350*	*51673*	*51668*	*51807*	*52781*	*53383*
Victorian TUoS charges ($/MWh) (real)	***7.4***	***7.9***	***8.2***	***8.5***	***8.7***	***8.9***

*Total Revenue Requirement has been reduced by $1 million per annum to account for interest income earned by VENCorp

VENCorp has also made an adjustment to the prescribed services charges to reflect a change in the recognition of the Availability Incentive Scheme (AIS). Having had the opportunity to consider SP AusNet's revenue proposal VENCorp has excluded an allowance made for the AIS given that an allowance has been made for the AIS in SP AusNet's revenue proposal.

Transmission Network Planning Criteria

We are also pleased to provide you with an updated version of VENCorp transmission network planning criteria. The revisions to the planning criteria are aimed at ensuring that VENCorp's approach to transmission network planning is easily understood by industry participants and the market as a whole. However there are no changes to VENCorp's approach to transmission planning.

A copy of Issue No. 2 of VENCorp's transmission network planning criteria has been attached.

If you have any queries on any of the above please do not hesitate to contact Louis Tirpcou on ☎ (03) 8664 6615.

Yours sincerely

M. Zema

Matt Zema
Chief Executive Officer

att.