Submission 3.

This submission to the ACCC represents the private views of group supporting Telecommunications Deregulation.

Why the ACCC should not regulate ULLS

Mobile constrains fixed line telephony

Telstra has no market power in fixed line telecommunications.

The ACCC's own report on Telecommunications on 2004-05 prices and revenues, shows Telstra has no market power in fixed line telecommunications because of the competitive pressure of mobiles.

The report shows fixed line telecommunications revenue declined 6.3% in Fy 05. The per capita decline is about 7.8%, and the decline in volumes per capita is 6.6%.

A per annum decline in revenues of 8% is completely inconsistent with the notion that there is market power in fixed line telecommunications.

To prove Telstra has market power in fixed line communications, that it can exercise if ULL is not regulated, the ACCC must adduce evidence that at the competitive price in fixed line communications the own price elasticity of demand is less than one, and the cross price elasticity of demand with respect to mobiles is trivial.

Now the ACCC has been price regulating fixed line telecommunications via several instruments, including retail price controls and wholesale access prices, for 10 years. So prices in fixed line services are at or below competitive levels unless the ACCC has set access prices that are "too high", which is unlikely.

Own price elasticity of demand in fixed services is greater than one
Now, according to the ACCC's own pricing data, the own price elasticity of demand for fixed line communications is greater than one (in absolute terms).

A 1% fall in fixed line prices in Fy 05 still resulted in a 7% decline in volumes. Clearly a price rise in fixed services, would have resulted in even further declines in volumes. So a price rise by Telstra above current competitive levels would be unprofitable, especially given the high ratio of fixed to marginal costs. So the fixed market is in structural decline because of the superior mobility and service quality offered by mobile telephony.

The ACCC's own data also shows the cross price elasticity of demand of fixed services with respect to mobiles is high. Mobile prices fell 13% according to the ACCC in Fy 05, and fixed line volumes fell 7%. On its own, this data indicates a cross price elasticity of at least 0.6. However, since we would expect greater long-term substitution, and the long-term should be a period of at least 3 to five years, the cross price elasticity of fixed line services may be as high as 3.

Clearly, if the cross price elasticity is greater than one there is no case for regulation: mobiles and fixed services are in the same market.

ULL should not be regulated to promote competition in data services
Data is subject to competitive supply: 4 mobile networks, the Telstra and Optus fixed networks, and wireless networks, including the wi max family of technologies, are all sources of competitive supply of data services.

In addition, data is a new service where demand is uncertain. The ACCC's 1997 Access Pricing Principles say new services where demand is uncertain should not be regulated using TSLRIC. So the ACCC would be departing from its own 1997 principles if it decides to regulate ULL under the guise of promoting competition in data.

If the ACCC does price regulate, Telstra's PIE 2 model is an underestimate of TSLRIC based costs

I disagree with the concept that the ACCC should regulate ULLS. Nevertheless, if it does regulate ULL, the Telstra PIE 2 model is an under-estimate of TSLRIC based costs.

TSLRIC of network access would be between $50 b to $200 b

The ACCC should set prices higher than dictated by the PIE 2 model.

Table 1: Estimate of network access costs by ACCC's NERA consultants

Table 3.2
Breakdown of Investment Costs in the Access Network

Type of cost	Investment (Aus$ million)	% of total
Pillars	$ 338	2%
Copper cable	$ 3,996	24%
Trench	$ 8,302	51%
Line cards	$ 2,392	15%
Other NTS part of switch	$ 1,047	6%
Additional costs for remote rural customers	$ 241	1%
Total	**$ 16,316**	

Table 1 shows the estimate of Telstra's network costs as provided by the ACCC NERA model in 1998. Note, cable conduit is 24% of costs and trenching is 51% of costs.

It appears the ACCC today is using a total access network cost of between $10 b to $15 b for the Telstra network, which is patently too low. My estimate is Telstra is using a cost pool of under $20 b in PIE 2, which is again too low.

TSLRIC equals the forwarding looking costs of constructing a network on the scale of the incumbent at today's prices. The major costs are copper and trenching. As I discussed in my previous submission, those costs are rising: trenching by 30% since 2002, and copper by 400% to 500% since 2002. So whatever costs the ACCC was using then, the costs inputs and ULLS prices would be a lot higher now.

Telstra's FTTN means TSLRIC must be > $50 b for the access network
In terms of an actual cost estimates, Telstra has estimated an actual cost of $4 b to roll-out a fibre to the node network. Now, that network is from 550 local exchanges to 20,000 node points, where the average length would be about 2 kms. Given, there is some sharing (saying 25%), the FTTN project involves laying conduit in pre-existing trenches for about 30,000 KM of network length = 20,000 * 2 km * 75% = 30,000.

So the cost of laying conduit over 30,000 km is $4 b. To my knowledge it is not disputed that Telstra will incur about $4b in costs from an FTTN, and ASIC policy on truth of continuous disclosure means the Telstra estimate is likely to be an accurate best estimate.

So if it costs $4 b to roll-out conduit over 30,000 km, it would cost $26.6 b to rollout conduit over 200,000 KM of trench length. The Telstra trench network, is likely to be far larger than 200,000 KM, even after accounting for efficient sharing. Lets use the 200,000 KM as a conservative lower bound estimate of trench length. So costs of laying conduit over 200,000 KM is $26.6 b, and the costs of trenches is 51%. Therefore, the total cost of the access network is at least $54.4 b = $26.6 b /49%.

AGL experience suggests access network cost is over $200 b
AGL has said it will cost $4 b to construct the PNG pipeline, which has a length of 4,000 km. Again, this is a real world actual cost estimate, so it is more credible than a computer simulation model.

Now, lets suppose the cost of trenching, laying conduit, and negotiating rights of way, assuming the trench is re-sized to be a standard telco trench, is only 25% of the total PNG pipeline costs. Again, this will be a conservative under-estimate of costs. It suggests the cost of trenching per Km is $1m per KM. It means the cost of a 200,000 Km telco network is $200 b.

PIE model and trench lengths
The PIE 2 model is likely to substantially under-estimate trench lengths.

The total road network in Australia is over 750,000 KM. The road network will provide a conservative under-estimate of trench lengths — the road network does not include street crossings. Assuming, street frontages in metro areas are about equal to street width, an extra 200,000 km of trench length should be added to the total network to account for street crossing. So the total trench length for the Telstra network equals at least 950,000 km before sharing.

Now, assuming Telstra can share a trench with one utility, and Foxtel where it has cable, on a best case scenario it would suggest a total trench length for the network of at least 441,000 kms, after accounting for absolute best case sharing between Telstra and other networks.

Using a 440,000 KM trench length suggests Telstra's network costs are between $100 b and $400 b using a TSLRIC based model.

ACCC approach to examining Telstra's model is flawed
All models are incorrect in that they are a simplification of reality. A model that is perfectly accurate is as useful as a 1 to 1 map.

The Telstra PIE 2 model will have inaccuracies that go both ways, under-estimating some costs and over-estimating others, because no model can be 100% accurate. Now, the ACCC approach to examining the PIE 2 model is flawed, because all the ACCC ever does is look for errors in the model that over-estimate costs.

In addition, the ACCC's consultants only ever look at issues where the PIE 2 model may over-estimate costs.

I have examined the ACCC draft decision, and it provides 7 different reasons why the PIE 2 model may over-estimate costs, but no reasons why it may under-estimate costs. This indicates there is likely to be bias on the part of both the ACCC and its consultants in reviewing the PIE 2 model

Why the ACCC is likely to be biased in assessing PIE 2
Let us suppose the PIE 2 model has a set amount of errors, say 10000, of which 5,000 over-estimate costs, and 5,000 under-estimate costs.

Now, given such a distribution of errors, the probability of the ACCC detecting 7 errors which over-estimate costs, and none which under-estimate costs, is 0.78%.

Similarly, in the ACCC Final Decision on ULLS in December 2005, it contained a number of comments on why PIE 2 over-estimates cost, but none on why it under-estimates costs.

A methodological approach which only looks for certain types of errors (cost over-estimates), and then adjusts a model one way only (reducing costs), will necessarily result in a likely under-estimate of TSLRIC costs.

If the ACCC is unhappy with the PIE 2 model then it should use its own model to estimate network costs. A methodological approach where the ACCC only adjusts Telstra's model one way is a flawed approach in assessing the reasonableness of costs and estimating TSLRIC.

Various consultants' reports cannot be relied upon
Various consultants have reviewed the Telstra PIE 2 model, including Marsden Jacobs for the CCC, N/E/R/A for the Optus, and Analysys for the ACCC.

The consultants have provided limited evidence that in some areas the PIE 2 model may "theoretically" over-estimate the costs of constructing Telstra's network. The consultants have not addressed the question of whether in other areas the Telstra PIE 2 model under-estimates TSLRIC. So the above consultants' approach is methodologically flawed in estimating TSLRIC: all any of them do is, look at a model, and suggest some adjustments one way (downwards!).

The ACCC cannot rely on these consultants' reports in estimating TSLRIC, because none of the reports answer the simple question: Does the PIE2 model overestimate or underestimate the costs of constructing a ubiquitous ULL network on Telstra's scale using present day prices?

The ACCC should conduct a simple experiment. It should ask the above consultants if they are prepared to sign a written affidavit and provide full supporting documentation, including modelling, that categorically states the following:
"A nationwide telephony network capable of providing ubiquitous ULL, and meet all of Telstra's regulatory obligations, can be rolled out at today's prices for less than the costs estimated by Telstra's PIE 2 model."

If none of the consultants are prepared to provide such an affidavit then their evidence cannot be relied upon that the PIE 2 model over-states TSLRIC costs — because they are not prepared to testify that proposition.

USO adjustment

Suppose the ACCC is considering setting averaged ULLS prices, and wants to ensure competitive carriers' contributions to the USO are not double counted. I calculate, at most, an adjustment of about 25 cents per ULL may be necessary to prevent double counting of USO contributions by competitive carriers.

Carriers contribute to the USO according to eligible revenue. The contribution is about 0.63 cents per $1 of revenue or 0.63%.

Per ULL a competitive carrier will probably charge about $70 retail, and pay $30 in interconnect if the ACCC sets the price at $30. So the net revenue is $40.

$40 * 0.63% = 25 cents downward adjustment in the ULL price to prevent USO double counting.