

**INQUIRY INTO THE LEASING OF ELECTRICITY
INFRASTRUCTURE**

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Partially Confidential

Below is a summary of the points that I seek to present to the Select Committee for the Inquiry into the Leasing of Electricity Infrastructure.

The leasing of the NSW electrical distribution industry will have impacts on many aspects not only in the loss of financial revenue to the state and its citizens.

1. Future of the Lane Cove High Current and High Voltage Testing Station

Ausgrid, (one of the electrical distributors) owns a high current and voltage testing station. See url http://www.ausgrid.com.au/testing#.VSYCh_mUd8E. This is a unique testing facility. It is the only such testing station in Australia.

In general the testing station provides, product certification (proving that electrical equipment meets specifications), research and development (numerous research programmes have been conducted such as the verification of computer models) and investigation (arc proof clothing standards). The American standard for arc proof clothing has been proven wrong using the lab's facilities and hence the American standard has been amended. (Arc proof clothing provides protection from burns should an electrical worker be exposed to an electrical fault)

Electrical energy is considerable in magnitude both at the transmission level (Transgrid) and distribution level (Endeavour Energy and Ausgrid) and electrical faults can result in temperatures similar to the surface of the sun, with substantial forces generated. Lane Cove Test Station can generate these conditions to assess safety and suitability of equipment. Electrical equipment needs to be proven to meet specifications.

Also, research and development and investigations need to be conducted so as to determine the cause of unusual occurrences. R & D is vital to the Australian electrical industry. One example is the development and testing of spark-less fuses. Power transformers that are mounted on poles have three high voltage fuses. When these fuses operate to clear a fault hot molten material is ejected. If this hot material falls to the ground which has combustible material such as grass, then there is potential of a bush fire. Spark-less fuses were developed to prevent such occurrences. Spark-less fuses were proven by testing at Lane Cove Test Station. And as newer models of spark-less fuses come onto the market the newer fuses will require performance verification. The question for the inquiry is what is to be the future of this testing station which forms a vital support for research and development, safety and investigation used by both government utilities and private industry?

2. Asbestos

Many of the employees of Transgrid, Ausgrid and Endeavour Energy have been exposed to asbestos and hence face the possibility of contracting the associated asbestos diseases. The question is with the leasing of the utilities, who will be responsible for the compensation payments?

There is also the problem of large amounts of asbestos that is still present in the electrical system especially in the Sydney CBD. Who is responsible for the removal of the asbestos?

3. Environmental issues

There exists many environmental issues such as (a) asbestos, (2) oil leaks from high voltage 132kv cables and recovery of lead sheaths of abandoned high voltage cables. Who will be responsible for the rectification of these environmental burdens?

4. Freedom for Industry Experts to be able to testify at the inquiry.

Many of the industry experts are presently employees of the 3 electricity utilities. I suggest that leave to be given so that they can testify under oath to the inquiry and not be bound by their company's disclosure code of conduct.

5. Financial Impact on the State budget

A concern is the repayment of the existing debt carried by the three utilities. Is the lease of the 3 utilities to be such that the utilities be debt free i.e. the state is to be encumbered with the debt and hence the debt repayment?

What are the income pathways? i.e. how will the ongoing income be distributed from the energy money pool to the leasees and State Treasury? Will this be done by a fund manager, requiring the payment of a fee?

Who will manage the investment arising from the lease payment of \$15 billion? Will a fund manager need to be paid and again, what would be the manager's fee?

Regarding the \$2 billion promised by the Federal Government, is this payment secured? Or as the State is seeking a partial lease instead of a sale will the Federal Government not transfer the money to the State? If there is to be a \$2 billion incentive payment when will this occur?

I cannot understand why the State government wishes to sell the utilities when they generate a stable cash flow to the State budget and interest rates are so low?

The present poles and wires generate an income stream of \$1.7 billion. Mike Baird says he will get \$13 billion for the sale, plus \$2 billion from the Federal government and by investing he will get an additional \$5 billion. The \$5 billion return is assuming that the infrastructure spend is spread over say 10 years and hence he will spend it gradually over the 10 year period. During that 10 year period there will be cost escalations due to inflation and variations in exchange rates hence the full potential of the money will not be realised.

6. Cost Benefit Analysis

With engineering projects cost benefit analysis is a common tool to determine which path should be taken i.e. should an item of equipment be replaced (i.e. capital expenditure) or should ongoing maintenance be undertaken? This decision is what people do with motor cars i.e. purchase a new car or pay for a new gear box and or engine or have the rust cut out of the car's body. Industry expenses are much greater than a car and hence the cost benefit analysis is a much more rigorous exercise.

Brief Cost Benefit Analysis of the poles and wires lease:

So how does one compare the cash flow of \$1.7 billion annually with return from the \$13 billion raised by the one off leasing of the poles and wires?

To do so, one assumes that the State Government borrows \$13 billion. The State Government can raise money via its Waratah Bonds which have a current interest rate of 2.75%. To keep the maths simple, we assume that it is an interest only loan. Then the State Government could borrow \$61.8 billion. With a loan of \$61.8 billion and interest rate of 2.75%, the interest bill is \$1.7 billion i.e. $1.7 = 0.0275 \times 61.8$. Taking into account that it is a lease of 49%, then the State Government could borrow \$30.3 billion with an interest rate of 2.75% i.e. \$0.85 billion per annum. $30.3 \times 0.0275 = 0.85$.

\$30.3 billion is \$17.3 billion more than the quoted lease price. So the State Government is worse off. Hence, as the UBS report states, it is bad for the State budget. You could say eventually the principal of the interest only loan would have to be paid back. The state could simply take out another loan at the interest rate of 2.75% or borrow less than the \$30.3 billion and pay back the principal. If the State pays back the principal, it then has the cash flow back again whereas with the one off lease it is a one off sugar hit.

To counter the above argument, the NSW Treasury have downgraded the forecast income from the utilities. See NSW Treasury's "Half Yearly Review 2014-15" page 15. In the report, NSW Treasury has reduced the dividend to the State from \$1.7 billion to an income of \$0.407 billion. Taking half of this figure i.e. \$0.204 billion and an interest rate of 2.75%, the State could

only borrow \$7.4 billion. So it would appear preferable to lease the assets for \$13 billion. However (1) if the revenue stream is so low then a bidder for the lease would not pay \$13 billion and (2) the NSW Treasury has some fine print. *"However, given uncertainty surrounding the final determinations, the impact of the proposed reductions in operating and capital expenditure allowances on dividends and tax equivalent payments has not been included at this time."* Hence the NSW Treasury have not included the cost savings mentioned above.

One of these possible savings is the reduction of 4,600 staff. If one assumes that the average wage is \$80,000 pa per employee, the staff reduction results in a saving of \$368 million p.a. There is also the huge capital savings. If only the savings due to wages are added, then the revenue returns to \$0.775 billion. Taking 1/2 of \$0.775 billion is \$0.388 billion. And with an interest rate of 2.75% NSW could borrow \$14.1 billion.

Regarding cash flow, I assume that the \$1.7 billion is already being put to good use by the State Government and there is no explanation on how this cash flow is to be replaced.

7. Possible impact of changes in Technology on the Revenue Income for the Poles and Wires.

There are indeed technological changes in the distribution of electrical energy with the introduction of solar, wind and micro-generators. The introduction of alternative technologies is altering the traditional top down model of generators and consumers. There has also been the introduction of more efficient lighting such as LEDs and more efficient air conditioners. This has resulted in a reduction in the sales of electricity. The reduction is also exacerbated by the reduction of the manufacturing industry. Proponents of leasing have stated that the State should lease now as the revenue will diminish in the future due to the above technological changes, plus the possible future development of battery storage which will allow consumers to generate and store electricity. However, this conclusion is rather short sighted as the same battery technology will increase the availability of electrical vehicles and hence create an increase in electrical demand. The grid will also still be required to transport energy generated by alternative technologies.

The projection for Sydney's population growth is from 4.29 million persons (in 2011) to 5.586 million persons (in 2031), NSW planning figures. This is a 136% increase and even with improved efficiencies electrical demand would increase.

8. What are overseas utilities doing?

Both in Germany and France the utilities are investing in the grid so as to allow the flow of renewable energy through the grid, to and from consumers and provide flexibility. The disadvantage of renewable energy is that it is not 100% reliable i.e. the sun does not always shine and the wind does not

always blow, and hence the grid has to be able to accept and dispatch power from numerous points. Currently in NSW electrical power is transported from the coal generators to the consumers. Eventually the NSW grid will need to be redesigned so as to allow for greater input of renewables.

9. Training.

Traditionally the utilities have provided specialised training to both trades and engineering staff in the skills needed to work with electricity – jointing of cables, line work, substation design and construction, maintenance. The graduates of these training courses have provided expertise both within and external to the utilities. This has provided a service to the community of skilled trades and engineering personnel.

10. Street Lighting

The expense for street lighting is born by local government. The 2 distributors - Ausgrid and Endeavour Energy, charge the individual local government bodies at cost for lighting (which incorporates the Capital and Operating costs plus energy expenses). What is to be the future for these expenses and what will be the role of more efficient LED lighting?

11. Maintenance and Risk Management

There will be incentives to cut maintenance costs and hence increase exposure to risks such as bushfires (from vegetation near overhead cables and cables clashing together), poles falling, cross arms failing which result in live cables on or near the ground.