Submission to the

Independent Pricing and Regulatory Tribunal of New South Wales

In regard to

The Interim Report to the Minister for Energy on Undergrounding Electricity Cables in NSW

By
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1.0 Introduction

This submission is a personal submission of Michael E. J. Parker.

The interim report and the Meritec report show that there are two paths that can be taken. Either the status quo or the "fully planned undergrounding option".

This submission will support the fully planned option as the correct approach. The primary issue is "Is it affordable and can it be funded" both of these questions are clearly **YES**.

The other option is maintaining the status quo.

This option must be clearly understood before we proceed. The status quo is not keeping the current overhead cabling system but replacing the current cabling system in a very inefficient and expensive way using the "like for like approach".

The terms of reference used the term "options for funding undergrounding projects having regard to: improvement to the urban environment and public amenity … projects including main roads …".
In addition the Meritec report states "Most DNSPs have ongoing undergrounding programmes in progress in certain areas and for various reasons"[1]. This reflects the current situation of ad-hoc improvements on an ongoing basis.

The Meritec report states "A like-for-like approach will not achieve an efficient result but will be the least successful approach to undergrounding, technically and economically"[2].

The following submission will explore these issues in more detail.

First, I must congratulate IPART on the quality of the investigations to date. I have concerns regarding the proposed funding model identified in the interim report. However, I believe that the interim report contains a reasonable review of the issues involved.

I must further congratulate IPART for engaging Meritec and congratulate Meritec on the quality of their report.

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[1] Meritec p 8.
[2] Meritec Covering Letter.

The interim report states "*Overall, the tribunal found that general, widespread undergrounding is only justified if the value of hard to quantify benefits such as improved amenity is very high*"[3]. This point is **AGREED** with and this report will not only identify that "hard to quantify benefits" are valued high in the community but are justified.

The point is that if the value of undergrounding is purely economic then the DNSPs would be undergrounding all asserts now that this report from IPART would be unnecessary. Clearly the community and the "Market Place" values undergrounding highly. The issue is how do we fund this project in an equable manner such that these benefits will flow without creating market distortions or without creating unnecessary financial stress.

2.0 Review of Issues

2.1 Beneficiary or Impactor to Pay?

This is where the philosophical arguments start, should the distributor pay or should the beneficiary pay?

In a lot of respects this in itself starts to create distortions in the arguments. In the end we as a society pay for all provisions and benefit from these.

If the beneficiary is to pay – first we need to identify the beneficiary. Then identify the appropriate method of payment. This report will show that in fact everyone benefits to a certain extent and as all power lines are not proposed to be undergrounded we are all impacted. In addition, the period is significant so we will all be impacted and be beneficiaries to different degrees over this period.

The question has been raised “Why should I Pay again if my power is already underground?” The Meritec report shows that feeder lines, some distance from the existing undergrounding are proposed to be undergrouned. This in its self shows that we are talking about a “whole of network approach” and not just a “local street” short sighted view.

Currently, there are neighbourhoods which have been affected by attritional overhead cabling augmenting the supply to new subdivisions. In these cases the new subdivisions have negatively impacted on existing neighbourhoods.

2.2 If an area has underground cable why should they pay again?

There are a number of elements which need to be explored in this issue.

First, in a majority of cases undergrounding is not an "option". When you purchase the house is comes with either underground power or overhead power. You do not have a choice, if an area has underground power that is the way the houses are connected. All new estates have underground power for two reasons. The first is that regulations force underground power and the second is market forces also favor underground power.

There are a few, and increasing in number where a new house is built in an "overhead area" and that owner chooses to underground power from the street to the house. In addition, as part of this project I propose that it be regulated that all new developments include underground power to the property boundary so as to minimise costs and disturbance when that area is undergrounded[3]. This issue of equity has to be further investigated, it has been noted in the interim report that this cost for the customer connection is only about 25% of the total costs[4] and as such it may be more complex to isolate this components. This point will be further discussed in the funding options issue later in this report.

Currently many properties have had undergrounding paid for by the authorities during upgrading, again this is an issue of equity, is it now unfair to exclude this property?

[3] Mr. Parker submission, 4 February 2002 p 36.
[4] IPART Interim Report, Pie Chart p 9.

2.3 Costs

Meritec has taken the approach of “annual expenditure” rather than a “total cost”. This in my opinion is the correct approach.

This project is too large and complex to be seen as a simple short term project. The time frame of 40 years is reasonable. Innovations over this time are likely to improve the prospects of less economic areas to be undergrounded.

There is a saying “let’s do it one and lets do it right”. Clearly the like for like approach has many weaknesses and now is the right time to plan foe the future and in the Australian Tradition, as exemplified in the 2000 Olympics, “get it right”.

A figure of $230 Million per year increasing to $330 Million over 20 years is proposed in the Meritec report. This level of expenditure is easily accommodated in our economy. The question is “what is the best way”. This is further discussed in the “Funding Options” part of my report.

2.4 Funding Options

The terms of reference states; “Options for Funding …”.

The interim report has interpreted the sub references as a method of selecting a funding option rather than providing “options” and addressing the sub references against the options.

To my mind there are 5 basic funding options

1. A charge or levy directly identified and included on one or more of Electricity Bill, Rates, Motor Vehicle Registration and Insurance (3rd party)
2. A charge built into the cost of electricity, This could be at the power station or using the tariff structure.
3. “Selling the rights” to underground power to one or more private companies then leasing these back to the distribution/communications companies.
4. Privatising the distribution companies and making the undergrounding of the power lines a condition of privatisation.
5. Using the profits from the distribution companies.

My preferred choice is to use the Tariff Structure. This can be implemented to include different amounts based on a set of agreed principles. I would work back from the fixed “known point” of $250 Million per year and then look at the amount of power used in the following basic segments.
Domestic
Domestic Off Peak
Commercial
Industrial
Rural

Then split up the $250 on an equitable basis such as
Domestic 50%
Domestic Off Peak 0%
Commercial 30%
Industrial 10%
Rural 10%

Then further split up the Tariff into 4 sections of each called
Lead In.
Low Voltage Street
High Voltage Street

Feeder

Now all Domestic customers would fund 50% of $250Million (i.e. $125 Million) This is then divided into the total power usage for all domestic customers not number of customers, giving and average unit increase. Then those domestic customers with existing underground power would get a discount on the average unit price and those with overhead cabling would pay a premium.

The above example need some mathematical modeling to prove the point, however, I believe that this type of method enables an equitable method of funding the undergrounding of power. Plus it has the benefit that the ownership of the undergrounded assert is with the distribution company and it does not distort the cost of energy to any significant amount.

Unfortunately, time is at a premium so I do not have the benefit to expand further the benefits of this type of model. However, concerns have been raised in regard to the loss of value of the overhead cabling system and I raise the concern regarding the loss of “regulatory assert base” if the undergrounded is paid for by some other means and then “gifted” to the DNSPs.

2.5 The "Do Nothing Approach"

One option which is not explored in the interim report is the "Do Nothing Approach" or the "Maintain the Status Quo". I realise that this is not directly referenced in the terms of reference and Mr. B. Steffen stated in the public meeting "I don't think there is an argument about whether or not to do it in this, it is the cost and benefits and the funding options that need to be discussed today"[5].

This option should be further investigated, as I believe it will support the view that we should plan for undergrounding now to maximise the benefits.

In my submission I stated "The undergrounding of all power cabling is an inevitable fact"[6]. Currently undergrounding is proceeding on an ad-hoc basis and in most parts the undergrounding of established areas are on a "Like for Like" approach.

The reason that it is an inevitable fact is that more areas are being undergrounded each year. Improvements are constantly being made by councils, first focusing on the core commercial areas. In addition, other areas are being undergrounded for various reasons.

[5] Transcript .19/4/02 48 lines19-22.
[6] Mr. Parker submission, 4 February 2002, p 1.

3.0 Conclusion

Unfortunately, time has beaten me in regard to addressing the many issues raised the interim report and at the public meeting.

I would just like to congratulate IPART on addressing this very difficult issue in such a short time and with the limited information available due to the shortness of time.

The other issues I would have commented on includes

1. Street Lighting – This is an issue in its self however, some councils are attempting to come up the Australian Standard and that creates a whole new set of issues.
2. Opt Out Option – I do not believe that is a viable option.
3. Optimal Design Approach
4. Supply Reliability
5. Scope of the proposed undergrounding
6. Safety
7. Liability in regard to causes of avoidable accidents.
8. Local Rates option – not supported due to equity issues.
9. Local Rates option – Fast Track option
10. Speed of Roll Out
11. Blue Mountains Specific issues
12. Network Expansion
13. Communications Issues

Should an extension of time be granted to IPART, or a change of the "Terms of Reference", or further investigations by IPART, I would be happy to provide a further report addressing all these issues, if required.