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Electricity Undergrounding in NSW
Independent Pricing and Regulatory Tribunal
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As one of Australia's most experienced horizontal directional drilling companies, we write to contribute our perceptions of capital costs and in particular, cost savings available from the skilled installation of undergrounded services.

IPART's Interim Report to the Minister (April 2002) quotes broad undergrounding estimates of \$1,800 to \$3,000 per customer for electricity cables, and \$2,000 for communications (an Optus figure, based on \$90 per undergrounded metre).

While we do not have access to Meritec's Underground Planning Model, their chart showing a breakdown of cost for an optimally planned network indicates that at least two thirds of capital is likely to be consumed by installation of HV mains, LV mains and customer connections. And all of these costs will be heavily influenced by how efficiently the various cables can be placed beneath existing ground surfaces.

Our reading of submissions to IPART, and our understanding of the bases of other estimates on which IPART relies, suggest that little or no account has been taken of the cost savings achievable by modern construction methods - techniques such as installing conduits by HDD (horizontal directional drilling), with or without integrated cable hauling.

UEA submits that the undergrounding costs quoted by IPART might be reduced by 15% to 25% through the use of "trenchless" cable installation technology and non-duplication of construction. Significant trenchless attributes are:

- ◆ Minimises interference with surface obstacles
- ◆ Potential sub-surface obstacles pre-located by sensor
- ◆ Minimises disruption to pedestrian and vehicular traffic
- ◆ Conserves the environment – treed suburbs and watercourses etc
- ◆ Facilitates installation under busy roadways
- ◆ Facilitates side-by-side installation of separate services, eg electricity and communications
- ◆ Electronic recording of as-built services locations to a high degree of accuracy

While some rare conditions, such as in the CBD, militate against trenchless due to complexity of existing below-ground services, our experience is that the great majority of applications are entirely practicable using modern drilling equipment and skilled operators.

UEA would be pleased to assist IPART and the NSW Government by demonstrating the scope for trenchless cost savings under the various conditions outlined in IPART's Report.

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