



Unit Rates Paper

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Authorisations

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Contents

1	The DD17 Tool	4
2	Items that appear in the DD17 Program of Work	5
2.1	Line Items	5
2.2	Yearly Costs	5
2.3	On Costs	5
2.4	Base Year	5
3	Price Calculation	6
3.1	Project Estimates are Stored in WASP	6
3.2	Link to a POW Project	6
3.3	Unit Assembly Based	6
3.4	Estimated Cost	6
3.5	Set Unit Rates	6
4	Project Scope, Justification, Risk Factors and Documents.....	7
4.1	Generation of Documents	7
4.2	Approval System.....	7
5	Unit Costs	8
5.1	Derivation Methodology.....	8
5.2	Derivation Data Sources	8
5.3	Derivation Assumptions.....	9
5.4	Avoidance of Double Counting	9
5.5	Unit Cost Variability.....	9
5.6	Comparison with Historical.....	9

1 The DD17 Tool

The Tool has been developed to manage annual Programs of Work (POW). It is structured to provide a single source of truth and supports work processes, controls and reporting requirements for the business. The tool is designed to be easily operated and straightforward in its operation.

The objective is to describe how to:

- Create and register a project or program into the POW for a nominated budget year, or as an ongoing program throughout the life of the determination.
- Provide details for the project estimates and program \$ per unit/volume to enable effective financial and resource planning.
- Provide a repository for the individual project and program Scopes of Work with detail to enable consistent evaluation of the varied items that comprise the total Program of Work.
- Track project / program authorisation to ensure appropriate approvals have been sought.
- Enable specific reports, or provision of data, for a user to produce individual reports.

This tool replaces a number of spreadsheets used in the previous Pricing Submission to improve consistency, provide audit trails and reduce the amount of uncontrolled documents.

2 Items that appear in the DD17 Program of Work

2.1 Line Items

Each line item embodies a unique unit of work. This line can be a once off project, a series of projects, ongoing activities or programs. As such, the method for the determination of the price for a line item can vary.

2.2 Yearly Costs

Each line item has yearly prices for labour, plant, material and other costs. Often this is determined by a volume and a unit rate, with the volume possibly varying each year. Other line items are estimated as a complete cost.

2.3 On Costs

Overhead costs have been included in the model using a methodology similar to that in the WASP system. This method is to apply a percentage amount to the labour cost. While it is recognised that the proposal uses a much more complex cost allocation methodology, for the purposes of populating the data in this tool it was decided to continue with a familiar method to assist the users.

The direct costs stored within the tool have been used as base data for this proposal.

2.4 Base Year

Initially, 2014/15 costs will be used as the basis for all prices. There is no escalation built in to the model.

3 Price Calculation

There are several methods to calculate the total price of a line item. Each line item only employs one method.

Often the method is based on the Scope Type (A, B, C D) of a line item. This method of categorising line items may not be required in the new system. The categorisation below does need confirmation.

Full descriptions of the scope types are below in Section 5.1.

3.1 Project Estimates are Stored in WASP

We are able to link to WASP to derive actual project estimates. These can then be used as the basis for forward projected pricing in future years. These will generally be for low volume and “one-off” projects.

These are generally for ‘A’ type scopes.

All A types have been calculated by a desk-top design. An experienced designer has looked at the general scope of the project, and estimated the project based on experience using the same methodology that is used every day for current projects.

3.2 Link to a POW Project

We can link directly to an annual project as stored in Annual Program Of Work, and derive the price based on that project. These can also be used as the prices basis for future years.

These are generally for ‘A’ type scopes.

3.3 Unit Assembly Based

Unit assemblies have been created within the tool forming a combination of plant material and labour costs. Where line items are based on unit assemblies, the user chooses the unit assembly and adjusts the yearly volume. The user does not choose the unit or annual costs.

These are generally for ‘B’ type scopes.

3.4 Estimated Cost

These are not based on unit/volume, the entire costs for the project or program is estimated as a “per year” value.

These are generally for ‘C’ type scopes, or for reactive work such as customer driver subdivisions, where the quantity is unknown at the beginning of the year and a budget allocation is set aside based on historical quantities or work that is generated.

3.5 Set Unit Rates

Where we have projects that have a set unit rate, the user is able to type in one unit rate and the volume for each year.

These are generally for smaller ‘D’ type scopes, where there is a moderate level of complexity, and a moderate volume. The costs have been based on historical data.

4 Project Scope, Justification, Risk Factors and Documents

Each line item is able to include values for:

- the scope and justification of the project;
- the risk evaluation and factors;
- Options and analysis;
- Annual volumes; and
- any related documents.

The field values as used on POW will be used for these tables.

4.1 Generation of Documents

Background documents are stored as hyperlinks within the tool, referencing TasNetworks document management system.

4.2 Approval System

The approval system is a workflow and audit trail built in to the DD17 tool. Once approval is attained the line is locked to prevent post-approval editing of items. If this is required the line is set back to “draft” status and the approval workflow has to be completed again. There is opportunity to reduce the number of stages that each line item goes through to make approvals streamlined.

Users will have the ability to select multiple line items for approval at once, rather than have to do these one at a time.

5 Unit Costs

5.1 Derivation Methodology

TasNetworks' program of work contains all capex and opex projects and programs, line items within the program of work are categorised by work type, allowing the correct costing methodology to be applied. Projects and programs are split into the following:

- A type work;
- B type work;
- C type work; and
- D type work.

The projects in the Program of Work (POW) are classified as follows:

Type A Work - Projects with detailed scopes as provided by the client, one scope for each work project, clear outcomes, and design is necessary prior to construction. Type A work is generally relatively complex in nature, low in volume and high in dollar value.

Type B Work - Generally have an annual scope which defines the work by either a set of rules and conditions that specify what work is to be done and how or a list of specific smaller jobs that have been identified by Network to be done.

Type B work has a unit rate; often unknown quantities or locations for delivery of work with budgeted volume based on historical experience. Exact timing of the work is not known and is relatively low complexity, high volume and low unit cost. (eg Pole Replacements, Maintenance)

All B Type unit rates are reviewed annually, to ensure that budget allocations are appropriate for the amount of work required. The labour and material quantities for B types in the POW have been calculated using the same methodology.

Type C Work - Is work that is identified as being the domain of an external service provider. Work can be managed directly by Network or alternatively it can be given to Network Services.

Type D Work - Type D work is work that has a detailed scope of work for each Work Category, and design is usually necessary prior to construction. Individual Type D projects are generally relatively low in complexity, high in volume and low in dollar value. (eg Customer Work). D type projects are not specifically identified prior to the financial year, as the projects have a relatively short lead time and annual budgets are set based on historical records.

D type work is identified as a budget figure, based on historical experience with the category of work. For example if the average actual amount for Install Substation - New OH Transformers for Voltage Improvement was \$2.15M from the previous few years, it is probable that we would (all things remaining equal) expect to spend a similar amount in future years.

5.2 Derivation Data Sources

TasNetworks Energy's Works and Asset management system (WASP) contains all asset, labour and project data used to manage our workforce and assets. WASP contains unit assemblies for small packages of work that are reviewed quarterly to ensure that the rates and volumes for the components are current. For example a unit assembly for installing a Pole in shale soil would contain components for materials – pole and possum guard, labour – linesman, labourer and borer driver.

For all A type and B type work all projects are estimated at this level, using standard unit assemblies.

D type work has been calculated by using a historical break-up of the quantities forecast. The historical percentage mix of the Labour, Material, Contractor and Other for each project, and the historical skill set used (the percentage mix of the respective skill sets) are stored in TasNetworks' Annual Planning Tool to ensure a consistent methodology is used across all D types.

5.3 Derivation Assumptions

For all D type work, TasNetworks has assumed that an average of our historical volumes is likely to be a reasonable basis of a forecast of future volumes. Historic anomalies have been excluded in the calculation methodology, while changes in work practices have been accounted for. For A type work there may be some assumptions on:

- soil type
- amount of traffic management required
- span length due to terrain conditions
- wayleave requirements
- complexity of implementation
- travel time (resources may come from different depots)
- materials to match adjoining assets
- amount of tree clearing required
- how much material can be recycled
- whether portions of the project will be done in-house or by contract

In general TasNetworks has assumed that much as of the work will be done as “business as usual”, unless there is a specific scope to do otherwise.

5.4 Avoidance of Double Counting

TasNetworks believes that the methodologies it has used for the calculation of unit rates are sound and that the possibility of double counting is remote. All estimates produced in this process have been reviewed by a panel of six of TasNetworks' experienced designers, and further examined by asset managers, accountants and analysts.

5.5 Unit Cost Variability

There is some scope for variability between different instances of the same asset replacement. As noted in the Part 5.3 above, the replacement of (eg) a Padmount/kiosk may be affected by a number of factors.

Having said that, TasNetworks has taken every opportunity to make its estimates as accurate as possible, and has prudently applied the assumptions using all available historical data. The unit rates represent a reasonable median value for each line item.

5.6 Comparison with Historical

The Unit Rates are derived from the information stored in WASP. The costs applied to individual components of the unit assemblies are reviewed quarterly (or as needed) to ensure currency of the data. As such the historic rates should quite closely resemble the rates proposed for the forthcoming determination period.

There are no individual cost increases for the forthcoming determination period factored into the unit assemblies. Any predicted cost increases for labour, materials, contracts or other are dealt with in the cost escalation models, and have no effect on the base unit rate data.