



DCoS to Tariff Model Methodology and Application

The application of the DCoS Model to Tariff Model in the tariff setting process

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1 Introduction

In accordance with the provisions of clause 6.18.2(a)¹ of the National Electricity Rules (Rules), TasNetworks is required to prepare an Annual Pricing Proposal for submission and approval of the AER.

The Rules were amended in December 2014 by the National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014. In accordance with the transitional arrangements within the Rules,² this amendment does not apply to the pricing proposal that is prepared by TasNetworks for the 2015-16 regulatory year. TasNetworks' pricing proposal is instead to be prepared in accordance with the version of the Rules that immediately applied before the Rule change, or version 65 of the Rules.

Clause 6.18.2(b)³ further requires that the Annual Pricing Proposal must contain certain information regarding the tariffs that are to be applied by TasNetworks for the relevant regulatory year.

TasNetworks' DCoS to Tariff Model forms an important step in TasNetworks tariff setting process for standard control services and this document provides an overview of the processes and methodologies adopted by TasNetworks within the DCoS to Tariff Model.

¹ Version 65.

² Section 11.74 of the Rules states: Former Chapter 6 applies to the exclusion of current Chapter 6 in relation to the regulatory control period of the Tasmanian DNSP commencing 1 July 2012.

³ Version 65.

2 Background

TasNetworks' DCoS to Tariff Model uses the target revenue developed within the DCoS Model as an input and allocates revenue to tariff groups. The output of the DCoS to Tariff Model is a 'target revenue' for each tariff group. This tariff group target revenue is to be recovered via TasNetworks' final network tariffs.

The DCoS to Tariff Model process includes:

- tariff group definition;
- revenue allocation to tariff groups; and
- an output of revenue by tariff group.

3 Tariff group definition

TasNetworks' DCoS to Tariff Model has been constructed to reflect the customer, connection and pricing differences in the network tariffs that are prepared by TasNetworks.

The following tariff groups have been used within TasNetworks' DCoS to Tariff Model:

- unmetered;
- streetlights;
- uncontrolled energy;
- controlled energy;
- residential light and power (single rate);
- residential (time of use);
- commercial light and power (single rate);
- commercial (time of use);
- nursing homes;
- LV metered demand;
- irrigation;
- HV metered demand;
- HV negotiated; and
- embedded generation.

The rationale for adopting these tariff groups includes:

- the need to group customers on an economically efficient basis that adequately reflects customer characteristics;
- the impact that customers will have on the distribution network;
- recovering the costs of the distribution network on a basis which reflects the characteristics of the connected customer; and
- groups like customers based upon their connection characteristics and their resulting metering requirements.

The use of the outlined tariff groups does not pose a restriction in terms of network tariff definition and development. A single tariff group may have multiple network tariffs or alternatively the tariff group may be covered by a single network tariff.

4 Allocation to tariff groups

TasNetworks' allowable revenue has been allocated to customer groups within the DCoS Model and has resulted in an allocation to the following customer groups:

- unmetered;
- street lighting;
- uncontrolled energy;
- controlled energy;
- residential (light and power);
- LV < 25 kVA;
- LV 25 to 70 kVA;
- LV 70 to 300 kVA;
- LV > 300 kVA;
- HV < 2 MVA;
- HV > 2 MVA; and
- embedded generation.

The aim of the DCoS to tariff group process is to allocate or assign the network costs already allocated within the DCoS Model to tariff groups in the most efficient way.

There are a range of allocators that are used within TasNetworks' DCoS to Tariff Model. The selection of the appropriate allocator is based on the ability of the allocator to reflect the fundamental tariff outcome. TasNetworks has adopted the allocators outlined below in the DCoS Model for the following reasons:

- **number of customers** – this allocator is deemed appropriate for those costs that are dependent upon or driven by the number of connected customers.
- **annual consumption or anytime maximum demand** – this allocator has been used to reflect the variable charge component included in TasNetworks' final network tariffs.

4.1.1 Unmetered

TasNetworks has a single unmetered supply network tariff. Costs are therefore allocated 100 per cent to the unmetered tariff group.

4.1.2 Street lighting

TasNetworks has a single streetlight network tariff. Costs are therefore allocated 100 per cent to the street lighting tariff group.

4.1.3 Uncontrolled energy

TasNetworks' uncontrolled energy tariffs are available to both residential and commercial customers as a tariff in their own right or alternatively as a component of a time of use tariff.

The uncontrolled energy customer group is allocated to the residential (time of use), commercial (time of use) and uncontrolled energy tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

The consumption within the residential (time of use) and commercial (time of use) is split between light and power, uncontrolled energy and controlled energy based upon the typical consumption of TasNetworks residential and commercial customers.

4.1.4 Controlled energy

TasNetworks' controlled energy tariffs are available to both residential and commercial customers as a tariff in their own right or alternatively as a component of a time of use tariff.

The controlled energy customer group is allocated to the residential (time of use), commercial (time of use) and controlled energy tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

The consumption within the residential (time of use) and commercial (time of use) is split between light and power, uncontrolled energy and controlled energy based upon the typical consumption of TasNetworks' residential and commercial customers.

4.1.5 Residential (light and power)

TasNetworks' residential tariffs are only available to residential customers as a residential light and power tariff or alternatively as a component of a time of use tariff.

The residential (light and power) customer group is allocated to the residential light and power (single rate) and residential (time of use) tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

The consumption within the residential (time of use) is split between light and power, uncontrolled energy and controlled energy based upon the typical consumption of TasNetworks' residential and commercial customers.

4.1.6 LV < 25 kVA

TasNetworks has five tariff groups that fall within the LV < 25 kVA customer group, namely:

- commercial light and power (single rate);
- commercial (time of use);
- nursing homes;
- LV metered demand; and
- irrigation.

The LV < 25 kVA customer group is allocated to these tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

4.1.7 LV 25 to 70 kVA

TasNetworks has five tariff groups that fall within the LV 25 to 70 kVA customer group, namely:

- commercial light and power (single rate);
- commercial (time of use);
- nursing homes;
- LV metered demand; and
- irrigation.

The LV 25 to 70 kVA customer group is allocated to these tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

4.1.8 LV 70 to 300 kVA

TasNetworks has five tariff groups that fall within the LV 70 to 300 kVA customer group, namely:

- commercial light and power (single rate);
- commercial (time of use);
- nursing homes;
- LV metered demand; and
- irrigation.

The LV 70 to 300 kVA customer group is allocated to these tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

4.1.9 LV > 300 kVA

TasNetworks has five tariff groups that fall within the LV > 300 kVA customer group, namely:

- commercial light and power (single rate);
- commercial (time of use);
- nursing homes;
- LV metered demand; and
- irrigation.

The LV > 300 kVA customer group is allocated to these tariff groups based upon the weighted average of historic consumption and customer numbers within this customer group.

4.1.10 HV < 2 MVA

The HV < 2 MVA customer group is allocated 100 per cent to the HV metered demand tariff group.

4.1.11 HV > 2 MVA

The HV > 2 MVA customer group is allocated 100 per cent to the HV negotiated tariff group.

4.1.12 Embedded generation

The embedded generation customer group is allocated 100 per cent to the embedded generation tariff group.

4.2 Cost allocation summary

Table 1 provides a summary of the tariff group allocation adopted in accordance with TasNetworks' established principles.

Table 1: Allocation of costs to tariff groups⁴

Tariff Group	DCoS Customer Group											
	Unmetered	Streetlights	Uncontrolled Energy	Controlled Energy	Residential Light & Power	Commercial LV <25kVA	Commercial LV 25kVA to 70kVA	Commercial LV 70kVA to 300kVA	Commercial LV >300kVA	Commercial HV <2MVA	Commercial HV >2MVA	Embedded Generators
Street Lights		100.0%										
Residential Light & Power Single Rate					56.0%							
Residential TOU			10.0%	29.0%	44.0%							
Commercial Light & Power Single Rate						56.0%	27.0%	6.0%	2.0%			
Commercial TOU			1.0%	2.0%		15.0%	46.0%	25.0%	7.0%			
Nursing Homes						1.0%	0.0%	3.0%	3.0%			
Controlled Energy				69.0%								
Uncontrolled Energy			90.0%									
LV Metered Demand Tariff						22.0%	10.0%	25.0%	61.0%			
Irrigation						6.0%	18.0%	41.0%	26.0%			
HV Metered Demand Tariff										100.0%		
HV Negotiated Tariff											100.0%	
Unmetered	100.0%											
Embedded Generation												100.0%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

⁴ Table may not reconcile due to rounding