Attachment 8.17

Type 5 and 6 Metering RAB

May 2014

1. Introduction

The AER's Stage 1 Framework and Approach (F&A) paper requires Ausgrid to classify Type 5-6 metering services such as metering provision, maintenance, reading and data services as direct control services and further as alternative control services for the forthcoming 2015-19 Regulatory Period[1].

For the current period, these have been bundled with Standard Control Services and have formed part of the Standard Control Services Regulatory Asset Base (RAB). Consequently, the Stage 1 F&A requires Ausgrid to 'unbundle' these services from the 2009-14 Standard Control Services RAB, which for Ausgrid, has given rise to a new Type 5-6 Metering RAB, and consequently a Type 5-6 Metering Post Tax Revenue Model (PTRM) for the purpose of generating revenues and ultimately prices. The following document provides the methodology used to establish the new Type 5-6 Metering RAB.

2. Separating the 2009-14 Standard Control RAB

Establishing the opening Type 5-6 metering RAB value for the 1st of July 2014 was performed in multiple stages. These stages consist of the following:

1) The 2009 RAB was rolled forward for the 2009-14 regulatory control period using the AER's Roll Forward Model (RFM) to provide the opening asset base in 2015. This asset base includes standard control service assets and metering assets combined.

2) Assets which directly relate to the provision of Type 5 and 6 metering services were identified. This includes the Type 5 and 6 meters themselves as well as specific IT systems that relate to Type 5 and 6 metering services.

3) Load control equipment, which for the current period has been combined with Type 5 and 6 metering related assets for the purposes of the RAB, were segregated from the Type 5 and 6 metering related assets to remain in the SCS RAB

4) A portion of non-system assets were allocated to the Type 5 and 6 Metering RAB

5) The Type 5 and 6 Metering RAB was consolidated and used as input to Ausgrid's Type 5 and 6 Post Tax Revenue Model to generate required revenue and ultimately prices.

These steps are explained in greater detail below.

2.1 Rolling Forward the 2009-14 RAB

The Standard Control Services RAB was rolled forward to FY2014 using the AER's Roll Forward Model (RFM). This process was undertaken in accordance with the AER's RFM Handbook[2]. With Type 5 and 6 metering treated as Standard Control Services for the 2009-14 Regulatory Control Period, the roll forward of the RAB was undertaken prior to the reclassification of services required by the Stage 1 F&A Paper, taking into account actual expenditure throughout the 2009-14. Further details of this process are not included in the scope of this document.

The segregation of the Type 5 and 6 Metering RAB was undertaken using the closing FY2014 SCS RAB, which also forms the opening (unbundled) FY2015 RAB.

2.2 Direct Type 5 and 6 Metering Related Assets

Following the determination of the unbundled FY2015 RAB, the direct Type 5 and 6 Metering related assets were identified and extracted. There are two main asset classes that relate to the meters themselves. These are shown in Table 1.

1 Stage 1 Framework and Approach Paper, Ausgrid, Endeavour Energy and Essential Energy, page 29.
2 Appendix C – Distribution roll forward model (RFM) handbook – 26 June 2008

Forming part of these two assets is a load control proportion: the extraction of this proportion (to remain in the SCS RAB) is explained in Section 2.3 below.

There are also a number of IT assets that directly relate to the provision of Type 5 – 6 Metering Services which up until 1 July 2014 are included in the broader "IT Systems" class in the unbundled RAB. We have undertaken the following steps to remove IT assets which directly relate to the provision of Type 5-6 Metering Services:

a) Ascertained the total financial asset value of IT assets as of FY2013[3]
b) Identified the financial asset value of the IT assets which are directly attributable to Type 5-6 Metering
c) Calculated the financial asset value which are distribution assets using the transmission/distribution split % determined by the Cost Allocation Method (CAM)
d) Multiplied the bundled RAB value for "IT Systems" by the ratio of the financial asset values for Direct Type 5-6 Metering IT assets (step (b)) to the overall distribution IT assets(step (c)). This results in the RAB value of "IT Systems" which are directly attributable to Type 5 and 6 metering
e) Subtract the value of "IT Systems" which are directly attributable to Type 5-6 Metering categories from the "IT systems" in the distribution RAB and assign it to the Type 5-6 metering RAB
f) Duplicate the asset age and remaining life of Type 5-6 metering related IT systems

2.3 Load Control Segregation

Ausgrid has load control equipment which in many instances involves separated control relays which are often installed adjacent to Type 5 and Type 6 meters. However, in some instances, the ripple[4] or time switch control of the load is carried out by the meter. Load control facilities are classified as Standard Control Services and remain in the Standard Control Services RAB.

Where the control facilities are incorporated into the metering hardware, the proportion of meter costs allocated to Standard Control Services has been estimated on the basis of the cost of separate load control devices. This was undertaken as follows:

a) The depreciated replacement cost value of all Type 5 and 6 metering assets (including load control) was determined at a segregated asset level. This was determined using asset counts (at the end of FY2013), calculated asset ages, an approximated remaining life for each asset and the per unit hardware and labour cost for each asset.
b) The load control asset weighting was determined as a proportion of the total calculated depreciated replacement cost of all Type 5 and 6 metering (as well as load control) assets.
c) The proportion was applied to the unbundled RAB asset class "Metering and Load Control" to extract the proportion of the asset class to remain in the SCS RAB.

2.4 Non-System Allocation

A number of Non-System assets as part of the unbundled RAB were allocated to the Type 5 and 6 Metering RAB. Examples of these assets include furniture, fittings, vehicles and buildings: these assets are shared across the business.

We have undertaken the following process to remove a proportion of the Asset Classes from the standard control RAB which can be partially attributed to Type 5-6 Metering:

a) Identified which Asset classes in the standard control RAB are partially attributed to the provision of type 5-6 metering services.

[3] Note, this is not the RAB value but the audited financial asset value and represents both transmission and distribution IT systems
[4] Ripple is an audio frequency signal superimposed on the electricity mains and recognised by the ripple Load Control Unit (LCU). When the signal is sent the LCU turns on or off as directed

b) Use an allocation procedure to proportion some amount of each asset class to the Type 5-6 Metering RAB. The remainder stays in the Distribution Control RAB. The allocation proportion is given by the ratio of total asset class values directly related to Type 5- 6 metering services to the total direct standard control asset values prior to unbundling. That is,

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Where:

- The Direct Type 5-6 Metering RAB is the sum of all assets which can be wholly attributable to the provision of type 5-6 metering services (including direct "type 5-6 metering IT systems" calculated in step 3.2); and
- Where the Direct Distribution RAB is the sum of all assets which can be wholly attributed to the provision of standard control distribution services.

The model that supports this calculation is found in Attachment 4.05.

2.5 Type 5-6 Metering PTRM

A mathematical representation of the entire unbundling process is found below in Table 1.

Table 1: Mathematical Illustration of RAB value allocation

Asset Class	Allocation Method
Sub-transmission lines and cables	Direct Distribution Asset
Cable tunnel (dx)	
Distribution lines and cables	
Substations	
Transformers	
Low Voltage Lines and Cables	
Customer Metering and Load Control	Allocation based on incremental cost of load control device
Customer Metering (digital)	Direct Type 5-6 Metering
Communications (digital) - dx	Direct Distribution Asset
Total Communications	
System IT (dx)	
Ancillary substation equipment (dx)	
Land and Easements	
Emergency Spares (Major Plant, Excludes Inventory)	
Furniture, fittings, plant and equipment	% to Type 5-6 = ———
Land (non-system)	% to Distribution = ———
Other non system assets	

IT systems	1) Separating direct Type 5-6 IT systems from bundled IT systems Type 5-6 Direct IT assets = ——————— (a) Remaining indirect IT (using result from (a)) = 2) Allocating Remaining indirect IT systems: % to Type 5-6 = —————————————————— % to Distribution = ——————————————————
Motor vehicles Buildings Equity raising costs	% to Type 5-6 = —————————————————— % to Distribution = ——————————————————