



Revised Proposal Attachment 8.01 Metering Services

January 2019

Table of contents

1	OVERVIEW	3
1.1	Revised prices	3
1.2	Background	5
1.3	New arrangements	5
2	REVISED OPEX FORECAST	6
2.1	Base level of opex	6
2.2	Step changes	6
2.3	Trend	7
3	BENCHMARKING OUR OPEX	10
3.1	How does our Revised Proposal compare?	10
3.2	How should our benchmark efficiency be taken into account by the AER?	11
4	ASSET BASE ROLL FORWARD	13
4.1	Metering RAB roll forward	13
5	FORECAST CUSTOMERS	14
6	PRICING APPROACH	16
6.1	Structure of metering charges	16
6.2	Before 30 June 2015 customers	17
6.3	After 30 June 2015 customers	17

1 Overview

Our Revised Proposal will deliver a real metering price reduction of 12% between FY19 and FY20 for a customer on a basic accumulation meter. It also embeds a year-on-year opex reduction, leading to our base level of metering opex declining by \$4.4 million in FY19 prices (19%) from FY20 to FY24. To support the efficiency of our cost inputs, we applied benchmarking analysis.

With the commencement of the Power of Choice metering reforms, our customers now have the option to leave our type 5 and 6 metering service by taking up a retailer offering inclusive of an advanced interval meter or 'smart meter'.

Our Revised Proposal reflects the efficient costs of continuing to operate our fleet of type 5 and 6 meters for customers who stay with our service. We have also taken into account the AER's Draft Decision, particularly with respect to key findings made about our forecast metering opex allowance.

Table 1

Summary of our response to AER Draft Decision and submissions

	AER FINDING / SUBMISSION	OUR RESPONSE
1. Regulatory asset base (RAB)	Our calculation of our opening metering RAB accepted.	We have applied the same approach as our Initial Proposal, updating for actual capex in FY18.
2. Metering opex – Step change	The AER adjusted our base level of opex via a negative step change for an apparent reduction in 'fixed' costs.	Our opex will organically 'step down' via the AER's preferred structure of metering charges so an additional step change is not required.
3. Metering opex – Productivity	Applied a bespoke productivity adjustment to Ausgrid and a benchmark productivity adjustment to the other NSW distributors.	AER benchmark productivity adjustment applied in our cost build up for the 2019-24 regulatory period, rather than a bespoke adjustment.

1.1 Revised prices

Our Revised Proposal applies the price cap control mechanism the AER specified for alternative control type 5 and 6 metering in its Draft Decision.

To develop our proposed price caps, we have applied the 'building block approach'. This involved forecasting the revenue required to deliver type 5 and 6 metering services over the 2019-24 regulatory period. Table 2 sets out this aspect of our Revised Proposal. Table 3 contains our proposed prices that have been calculated using our forecast building block revenue requirement.

Table 2

Our revised building block proposal (\$million, real FY19)

	INITIAL PROPOSAL	AER DRAFT DECISION	REVISED PROPOSAL
Direct capex	0	0	0
CAM allocated capex	15.9	15.9	15.2
Opening metering RAB as of 1 July 2019	218.2	218.2	207.4
Metering opex 2019-24*	105.8	93.1	105.1

* Includes debt raising costs

Table 3

Proposed metering prices (\$nominal)

TARIFF	COMPONENT	FY20	FY21	FY22	FY23	FY24
Residential Non ToU Closed	Non-capital	11.93	12.23	12.54	12.85	13.18
	Capital	14.92	15.28	15.65	16.03	16.42
Residential Transitional ToU	Non-capital	11.93	12.23	12.54	12.85	13.18
	Capital	14.92	15.28	15.65	16.03	16.42
Residential ToU	Non-capital	30.82	31.60	32.40	33.22	34.06
	Capital	16.61	17.01	17.42	17.85	18.28
Controlled Load 1	Non-capital	1.00	1.03	1.05	1.08	1.11
	Capital	8.29	8.49	8.69	8.90	9.12
Controlled Load 2	Non-capital	1.00	1.03	1.05	1.08	1.11
	Capital	8.29	8.49	8.69	8.90	9.12
Small Business Non ToU Closed	Non-capital	12.31	12.62	12.94	13.26	13.60
	Capital	22.81	23.36	23.93	24.51	25.10
Small Business Transitional TOU	Non-capital	12.31	12.62	12.94	13.26	13.60
	Capital	22.81	23.36	23.93	24.51	25.10
Small Business ToU	Non-capital	30.54	31.32	32.11	32.92	33.75
	Capital	15.85	16.23	16.63	17.03	17.44
LV 40-160 MWh (System)	Non-capital	54.36	55.73	57.14	58.59	60.07
	Capital	20.64	21.14	21.65	22.17	22.71
Transitional 40-160 MWh Closed	Non-capital	54.36	55.73	57.14	58.59	60.07
	Capital	20.64	21.14	21.65	22.17	22.71
Generator tariff	Non-capital	3.17	3.25	3.33	3.41	3.50
	Capital	8.55	8.76	8.97	9.19	9.41

We have proposed separate capital and non-capital charges for the provision of type 5 and 6 metering services. This is consistent with the charging structure approved by the AER in its Draft Decision. Our approach to pricing is set out in greater detail in section 6.

In terms of financial modelling, we have applied the same pricing model the AER used in its Draft Decision for the development of type 5 and 6 prices, with some updated inputs. This model is provided at Attachment 8.03 (Metering PTRM and Pricing Model).

1.2 Background

We own and operate over 2 million type 5 and 6 meters. A type 6 meter, or “accumulation meter”, only records electricity consumption over a period of time, whereas a type 5 meter, otherwise known as a “manually read interval meter or MRIM”, can record both how much and, importantly, when electricity is used (in no greater than 30-minute intervals).

Up until 30 June 2015, the capital cost of providing a type 5 or 6 meter to our customers was funded in full by Ausgrid at the time of installation. Those capital costs were then added to an asset base and recovered gradually through levying charges on our customers. Our proposal seeks to continue this approach of recovering past capital costs. This is by applying the Australian Energy Regulator’s (AER’s) preferred structure of metering charges (see section 6).

In addition to the recovery of our past capital costs, our type 5 and 6 metering proposal includes an operating expenditure (opex) forecast. Among other things, this opex forecast relates to the cost of performing regular, usually quarterly, manual meter readings. Our opex forecast for type 5 and 6 metering services is set out in section 3.4.

1.3 New arrangements

Our proposal takes into account the Power of Choice metering reforms introduced by the Australian Energy Market Commission (AEMC).

Under previous arrangements, the National Electricity Rules (the Rules) designated local service network providers (LNSPs), such as Ausgrid, to be the ‘Responsible Person’ for type 5 and 6 metering installations. The effect of this was that no other party, besides Ausgrid, could be responsible for arranging the installation, provision and maintenance of type 5 and 6 meters within our local network service area. We also had sole responsibility for the collection, processing and delivery of data produced by our type 5 and 6 meters.

The AEMC’s Power of Choice metering reforms amend these arrangements. The key change these reforms introduce is the transfer of the role and responsibilities formerly performed exclusively by LNSPs, to a new Registered Participant known as a Metering Coordinator. Any person can become a Metering Coordinator for non-type 5 and 6 metering assets, subject to meeting certain registration requirements. This is intended to facilitate competition in the provision of metering services and promote the take up of more advanced technology.

Our 2019-24 Revised Proposal is consistent with the Power of Choice metering reforms. This includes transitional Rules which provide that an electricity distributor that was acting as the Responsible Person for type 5 and 6 metering installations immediately prior to the commencement date of the new arrangements (1 December 2017) will become the ‘initial Metering Coordinator’ at that connection point.

Once an initial Metering Coordinator, an electricity distributor remains in this role until there is a new appointment made at the site, or the AER ceases to classify the provision of type 5 and 6 metering services as a direct control service. In practice, this means Ausgrid will remain responsible for a substantial population of type 5 and 6 meters. This population is likely to decline over the course of the next regulatory period as customers take up retailer offerings inclusive of an advanced meter. However, until our role at an existing type 5 and 6 metering installation is extinguished at a site, we will have the same obligations under the Rules, with some exceptions, of a Metering Coordinator.

2 Revised opex forecast

We will remain responsible for a substantial fleet of type 5 and 6 meters in the forthcoming regulatory period, consistent with our role as 'initial metering co-ordinator'. To forecast the cost of operating these meters, we have applied a 'base, step, trend' approach. When trending forward the base we have applied an output adjustment that accounts for diminishing returns to scale associated with a declining number of Ausgrid metering customers.

2.1 Base level of opex

We propose a base level of opex of \$24.89 million per annum (\$real FY19).

To develop our base level of opex we have adopted the approach the AER took in forecasting our metering opex requirement in our 2014-19 determination. This involved determining our metering opex base on a per customer basis.

In applying this forecasting method, we have used a 'revealed costs' approach which takes into account five years of our most recent metering opex (2013/14 to 2017/18). Table 4 sets out this calculation. It shows that over the last five years our type 5 and 6 metering opex per customer has averaged \$15.13 (\$real FY19). We propose that this opex per customer should be our 'base'. It is lower than the \$15.58 per customer we put forward in our Initial Proposal as a result of updated FY18 actual opex data.

Table 4

Base level of opex multi-year approach (\$real FY19)

	FY14	FY15	FY16	FY17	FY18	AVERAGE
Opex per customer	18.81	13.30	14.32	15.45	13.81	15.13

Using an average of five years of costs to develop our base is consistent with how the AER last assessed our metering opex. In our 2014-19 determination, the AER reasoned that this 'multi-year' approach was more robust than using a single year. It stated:

By taking multiple (five) years of costs into account, we avoid any incentive on Ausgrid, going forward, to load a single year with expenditure. This is important given that we do not apply an efficiency benefit sharing scheme with respect to alternative control services.¹

We conclude that our proposed base of \$15.13 per customer is reflective of our efficient costs in the 2019-24 regulatory period. In developing this aspect of our proposal, we have applied the AER's 'per customer' forecasting method which was used both in the AER's 2019-24 Draft Decision and its final 2014-19 decision for Ausgrid.

2.2 Step changes

Our revised forecast does not include a step change (positive or negative) to our base level of metering opex.

Though we did not propose or identify scope for a step change in our Initial Proposal, the AER applied a negative step change to our opex forecast when making its Draft Decision. The AER did not apply a similar step change to Endeavour Energy or Essential Energy in making its 2019-24 Draft Decisions for them, only Ausgrid. The quantum of the step change applied to us was, at \$1.0 million per year, significant. It reduced our total opex forecast by \$4.4 million over the 2019-24 regulatory period.

¹ AER, *Final decision on Ausgrid's 2015-19 regulatory period (attachment 16)*, April 2015, p. 16-57.

Our understanding of the AER's rationale

Ausgrid engaged a consultant, Sankofa, to assist us in the development of our initial metering proposal. Sankofa and Ausgrid worked collaboratively to provide the data needed to perform econometric analysis calculating an output adjustment to our base level of opex (see section 2.3). The data we provided Sankofa included, among other things, an estimate of the change in our fixed and variable costs. This data was included in a report Sankofa provided Ausgrid and which we passed on to the AER with our initial regulatory proposal.

The data, which was presented in a table within the Sankofa report, showed an apparent step down in our 'fixed costs'. This is from \$2.21 million in FY17 to \$1.17 million 2019-24 regulatory period. No detail was provided in relation to why our fixed costs would be declining. Nor did the AER seek clarification from Ausgrid as to why 'fixed' costs would be stepping down. Notwithstanding, the AER observed this decline and used it as a basis for applying a significant negative step change to our 2019-24 opex.

Doubling counting of negative step change

We have significant concerns about the negative step change implemented by the AER in its Draft Decision. When applied in conjunction with the AER's preferred structure of metering charges, this negative step change – if maintained by the AER in its final decision – would have a 'doubling counting' effect.

Under the structure of metering charges developed by the AER, customers of our type 5 and type 6 metering service pay a 'non-capital' metering charge to Ausgrid. Importantly, this non-capital charge recovers **both** our variable and our **fixed** operating costs. When a customer stops paying our non-capital charge by 'churning' from our type 5 and 6 metering service to a contestable metering service, Ausgrid will no longer recover costs from that customer including their proportion of **fixed** operating costs. This pricing mechanism therefore already fully incorporates the reduction in average fixed costs observed by Sankofa for the coming regulatory period. A negative step change to the base opex would erroneously duplicate this reduction in total fixed cost recovery.

We accordingly take the view that making a further adjustment for a decline in our fixed costs between FY17 and FY18 would amount to double counting. It would impose a regulatory step change on top of the organic negative incremental changes that are already effectively applied via the application of the AER's preferred structure of metering charges. This double counting of our decline in fixed opex would likely prevent us from having a reasonable opportunity of recovering our efficient costs, in breach of the NEL.²

2.3 Trend

We have trended forward our base level of opex over the 2019-24 regulatory period. While doing so, we have adjusted for our declining output (customer numbers) and our forecast of real price changes in labour costs. We have also made a further productivity adjustment associated with growing 'dis-economies of scale'.

Customer numbers

Our base level of metering opex was calculated to be \$15.13 per customer. To calculate this, we have included an additional year of actual data (FY18) which was not available when we submitted our Initial Proposal.

To trend forward our base level of opex over the 2019-24 regulatory period, we have multiplied that amount by our forecast volume of customers. Table 5 sets out this calculation. It shows that our annual opex falls year-on-year by incorporating our expected customer churn due to the Power of Choice metering reforms. This leads to a total metering opex in the forthcoming period of \$23 million. More information about how we have forecast our metering customer numbers is set out in section 5.

² National Electricity Law, Section 7A(2)

Table 5

Calculation of opex with expected customer churn

	FY20	FY21	FY22	FY23	FY24	TOTAL
Base opex per customer (\$real FY19)	16.1	16.8	17.7	18.7	19.8	
Forecast customer numbers (no. in millions)	1.4	1.3	1.2	1.1	0.9	5.9
Opex (\$m, real FY19)	23.1	22.0	21.0	19.9	18.7	104.7

Proposed Opex excludes debt raising costs.

Productivity adjustments

By the end of the 2019-24 regulatory period, we forecast that more than 675,000 Ausgrid metering customers will have switched to a retail offering inclusive of an advanced meter. With such a substantial decline in our customer base, Ausgrid anticipates our productivity to change. This is as a result of a loss of economies scale associated with providing a decreasing volume of metering services to a smaller customer base.

The AER's benchmark productivity adjustment factor in its Draft Decision is 69.7%. We have adjusted our opex forecast for our expected loss of productivity in the 2019-24 regulatory period. In doing so, we have applied the AER's benchmark productivity loss adjustment of 60.3% which it applied to both Endeavour Energy and Essential Energy. This is when making its Draft Decision on their forecast metering opex in the 2019-24 regulatory period.

We note that the productivity adjustment put forward in our Initial Proposal would have yielded a lower opex than the AER's benchmark adjustment applied in our Revised Proposal. Ausgrid has selected the AER's benchmark rate for the following reasons:

- the calculations which underpin the AER's benchmark productivity adjustment take into account a wider data set, including analysis from other distribution businesses and their consultants
- the productivity adjustment we initially submitted and the benchmark adjustment which the AER applied for Endeavour Energy and Essential Energy are measuring changes in the same inputs (labour, fixed ICT costs etc) and outputs (type 5 and 6 metering services)
- it would avoid an inconsistency in regulatory decision making as the same productivity adjustment developed by the AER and applied to Endeavour Energy and Essential Energy, would be applied to Ausgrid
- the adoption of a bespoke productivity adjustment for Ausgrid and a different benchmark adjustment for other electricity distributors is inconsistent with the uniform productivity adjustments put forward by the AER in its recent Draft Decision on 'Forecasting Productivity Growth for electricity distributors'.

Ausgrid concludes that the benchmark productivity adjustments which the AER applied to Endeavour Energy and Essential Energy must be applied by the AER when making its final decision on our metering opex forecast for the 2019-24 regulatory period.

Real price growth

Our proposal adjusts for forecast real price changes in our metering labour costs. We have also used an average of the escalators forecast by BIS Oxford and Deloitte Access Economics, consistent with the approach the AER applied in its Draft Decision for both our standard and alternative control services.

When we adjust for real price changes in our labour costs, we calculate a required type 5 and 6 metering opex of \$105 million. We have used real labour escalation consistent with our Standard Control Services proposal. Our opex proposal after productivity and labour adjustments is shown in the table below.

Table 6

Proposed Opex adjusted for Productivity and Labour (\$million, FY19)

	FY20	FY21	FY22	FY23	FY24	TOTAL
Meter Population (no.in millions)	1.4	1.3	1.2	1.1	0.9	5.9
Base Opex Level	24.9	24.9	24.9	24.9	24.9	
Productivity Adjustment	2.0	3.2	4.4	5.7	7.1	22.5
Base opex adjusted for productivity	22.9	21.7	20.4	19.1	17.8	101.9
Labour Adjustment	0.2	0.3	0.5	0.8	0.9	2.7
Proposed Opex	23.1	22.0	21.0	19.9	18.7	104.7

Note: Base Opex level is the weighted average of FY14 to FY18 Opex. Proposed Opex excludes debt raising costs.

3 Benchmarking our opex

We have tested the efficiency of our Revised Proposal using benchmarking analysis. This analysis provides a strong indication of whether our forecast meets the requirements in the NER to be accepted.

3.1 How does our Revised Proposal compare?

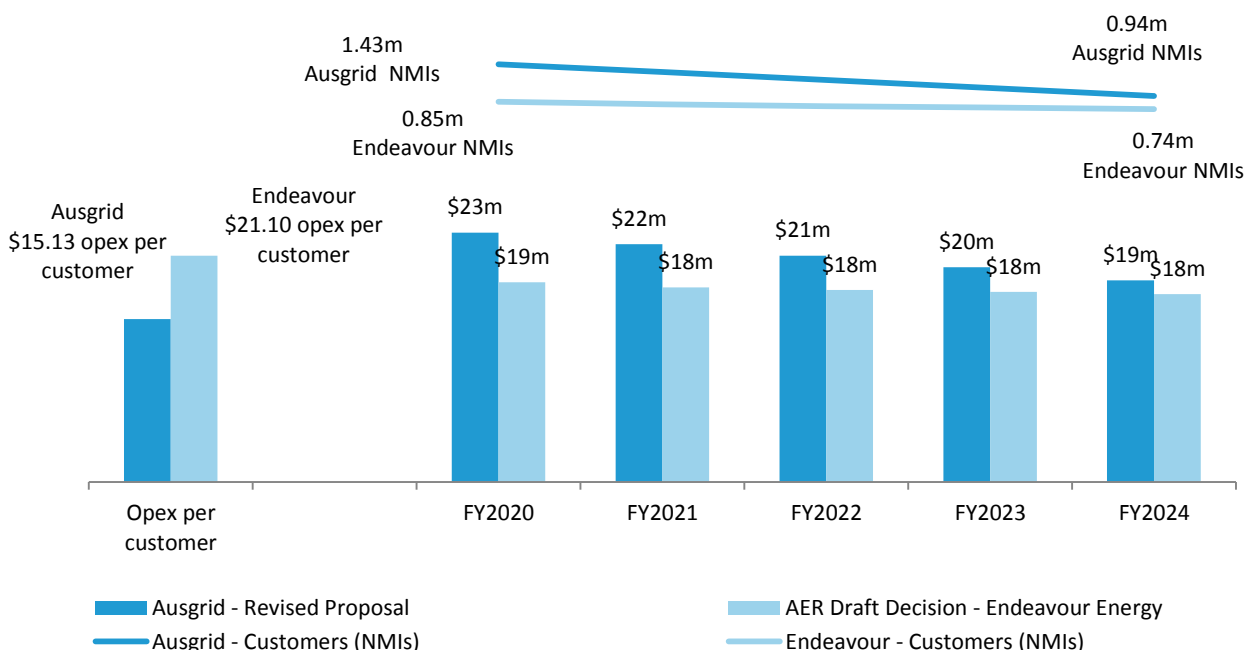
We are forecasting \$105 million in metering opex in the 2019-24 regulatory period. To test the efficiency of this forecast, we benchmarked it against what the AER considered to be efficient for our closest comparator firm in the national electricity market (NEM).

For type 5 and 6 metering services, we consider our best comparator for benchmarking is Endeavour Energy. This electricity distributor, like Ausgrid, is based in NSW. Endeavour Energy also has a similar network density to us – an operating environment factor the AER has previously identified as the main driver of a distributor’s operating costs for type 5 and 6 metering services.³

Figure 1 shows the results of our benchmarking analysis. On a per customer basis, it reveals that our Revised Proposal is significantly more efficient than what the AER accepted in its Draft Decision for Endeavour Energy’s 2019-24 regulatory period. Our Revised Proposal is based on a metering opex forecast of **\$15.13 per customer** whereas the AER considered a metering opex of **\$21.10 per customer** for Endeavour Energy to be efficient.

Figure 1

Opex per customer, total opex and customer numbers (\$real FY19)



Our lower opex per customer underscores the efficiency of our forecast in total. This, too, is demonstrated in the figure above. It shows that in FY20 we are forecasting a higher total opex than Endeavour Energy, which we would expect as

³ AER, *Final decision on Ausgrid’s 2015-19 regulatory period (attachment 16)*, April 2015, p. 16-58.

we have about 500,000 more national metering identifiers (NMIs) at that time. Our total opex then declines over the period to a total opex more in line with Endeavour Energy in FY24, though we forecast to still have 200,000 more NMIs.

We considered whether there are any operating environment factors that could help explain the different levels of efficiency between Ausgrid and the AER’s Draft Decision for Endeavour Energy. We note the following:

- Customer density – no material differences. Per kilometre of line length, we have about 24 customers while Endeavour Energy has about 21. Based on this, there is unlikely to be a material difference in the costs of reading a meter between Ausgrid and Endeavour Energy, as the time/distance between walking to each NMI would be about the same for a field person.
- Technology mix – likely higher costs for Ausgrid. We have more than 500,000 type 5 interval meters whereas Endeavour Energy has only type 6 accumulation meters. Our type 5 meters are costlier to operate because they record both how much and when electricity is used, usually at 30 minute intervals. This incurs more operating costs in the reading, storage and, in particular, the verification of type 5 metering data. These higher operating costs are also recognised by the AER’s Draft Decision accepting a higher non-capital charge for type 5, compared to type 6, meters.

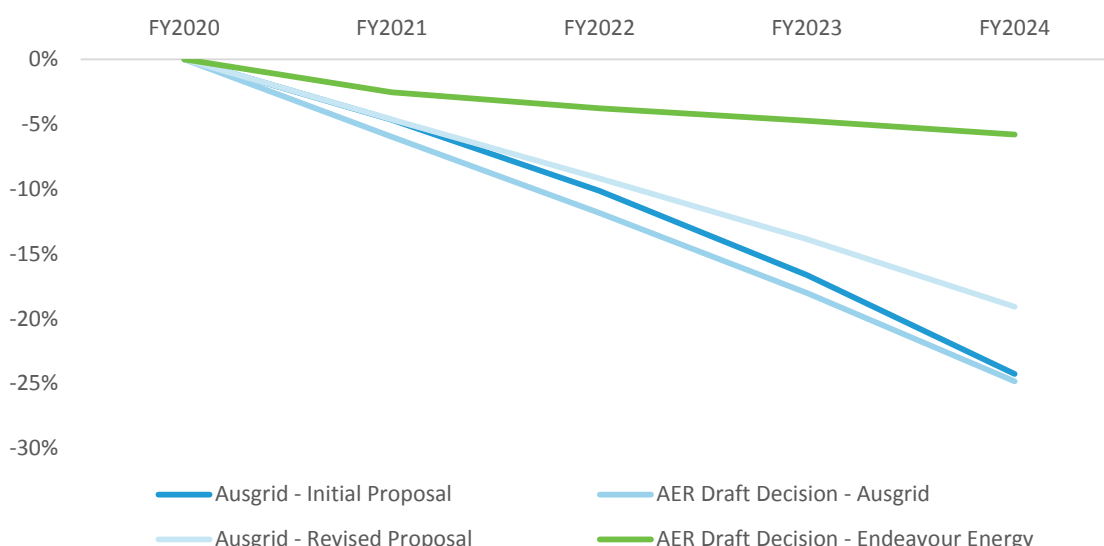
From this, we conclude that our proposed base level of operating costs, as measured by opex per customer, is more efficient than the base level of opex accepted by the AER for Endeavour Energy. The margin, furthermore, is not immaterial. We estimate that if we applied the per customer opex deemed efficient for Endeavour Energy, then we would forecast a total opex of \$145.9 million in the 2019-24 regulatory period. This is 39 percent higher than the \$104.7 million (excluding debt raising costs) included in our Revised Proposal.

3.2 How should our benchmark efficiency be taken into account by the AER?

Our opex per customer is at the efficient frontier for metering services (see section 3.1 above). We are, in addition, forecasting our opex to decline over the 2019-24 regulatory period at a substantially greater rate than our nearest comparator firm (Endeavour Energy), as outlined in the figure below.

Figure 2

Percentage change in opex



The AER, in our view, must take into account our greater level of efficiency. In doing so, we hold that our lower base level of opex and substantially greater rate of opex decline gives rise to a strong presumption in favour of a regulatory finding that our total opex forecast is efficient and should be accepted in full. The application of such a presumption in the context of our strong performance in benchmarking against our closest comparator firm in the NEM aligns with the AER’s lighter handed assessment approach for alternative control services. In our Draft Decision, we note the AER stated: ‘As a

general principle we attempt to regulate alternative control services in a lighter handed manner than standard control services'.⁴

To rebut a presumption in favour of our forecast being efficient, we hold that there would have to be a substantial economic or engineering basis supported by robust analysis clearly showing material inefficiency. In the absence of this, we are of the view that a reduction to our total opex forecast would risk failing to provide us with a reasonable opportunity of recovering at least our efficient costs as required under the Revenue and Pricing Principles in the National Electricity Law (NEL).⁵ This is particularly in light of the inferior opportunity of cost recovery which would be afforded to Ausgrid relative to Endeavour Energy, if our total opex forecast was not accepted in full.

There is also a risk that the approach taken by the AER in its Draft Decision would impact the incentives of firms in the NEM to make efficiency improvements. This is given that firms may not make the decisions needed to reach the frontier of efficiency if, as a result, they face regulatory decisions that lead to comparatively less favourable outcomes than their less efficient counterparts.

⁴ AER, *Draft Decision: Ausgrid distribution determination 2019 to 2024 (attachment 15)*, November 2018, p. 15-7.

⁵ National Electricity Law, Section 7A(2)

4 Asset base roll forward

Our metering assets once formed part of our total RAB for standard control services. This was until our last regulatory determination where the AER reclassified type 5 and 6 metering services as an alternative control service and established a standalone metering asset base (metering RAB). Our Revised Proposal is to maintain this unbundling in line with the AER's Draft Decision.

4.1 Metering RAB roll forward

We have calculated an opening metering RAB as of 1 July 2019 of \$207.4 million (\$nominal).

Our proposed opening metering RAB value is broken down by asset category in Table 7 below. Compared to the Initial Proposal, we have updated actual capex for FY18 and forecast capex for FY19.

Table 7

Opening metering RAB as of 1 July 2019 (\$million, nominal)

COMPONENT	VALUE
Type 6 meter population	88.48
Type 5 meter population	103.36
Furniture, fittings, plant and equipment	0.86
Land (non-system)	-2.79
Other non-system assets	0.67
IT systems	7.90
Motor vehicles	1.02
Buildings	7.49
Equity raising costs	0.43
Total	207.42

Most of the capex we have incurred in the 2015-19 regulatory period which has been rolled into our metering RAB relates to replacement. As the responsible person for type 5 and 6 meters up until the commencement date of the Power of Choice metering reforms, Ausgrid was under a regulatory obligation to ensure that our customers had a working meter at their connection point. This meant that we were required to replace failed type 5 and 6 meters until those reforms commenced on 1 December 2017.

We were not given a capex allowance for new type 5 and 6 meters from 1 July 2015. From this date, our customers paid for the capital cost of a new meter in full at the time of its installation. This was in accordance with the AER's approval of upfront charges for new meters in our 2015-19 regulatory determination. For the purposes of rolling forward our metering RAB, we have treated revenue from the provision of new meters as a capital contribution.

5 Forecast customers

We are forecasting a decline in the number of our type 5 and 6 metering customers over the 2019-24 regulatory period. Our forecast is set out in Table 8. The assumptions we have applied to inform this forecast are outlined in Table 9.

Sankofa Consulting was engaged by Ausgrid to review the reasonableness of our forecast decline in metering customers. This assessment—which includes a review against the market-led rollout of advanced meters in New Zealand—is set out in Sankofa’s report at attachment 8.04 of our Initial Proposal. We have updated Sankofa’s analysis using 2018 end of financial year (EOFY) actuals.

Table 8

Forecast change in type 5 and 6 metering customers (NMIs)

	EOFY17	EOFY18	EOFY19	EOFY20	EOFY21	EOFY22	EOFY23	EOFY24
New & upgraded Type 5/6 metering installations		26,597						
Conversion of solar bonus scheme sites		-1,146	-4,485	-4,485	-4,485			
Reactive replacement of faulty type 5/6 metering installations		-4,300	-12,000	-12,000	-12,000	-12,000	-12,000	-12,000
Proactive replacements (meter family failure)		-7,884	-33,158	-35,263	-9,695			
Advanced meter deployments by retailers including upgrades		-39,711	-17,357	-68,252	-95,820	-110,000	-110,000	-110,000
Remaining type 5/6 metering installations	1,643,935	1,617,491	1,550,491	1,430,491	1,308,491	1,186,491	1,064,491	942,491

Table 9

Summary of assumptions information meter churn

	DESCRIPTION	ASSUMPTION
New & upgraded Type 5/6 metering installations	Ausgrid remained responsible for customers having a working meter within our local service network area up until 1 December 2017, with an extension to 30 March 2018 in some circumstances.	26,597 new or upgraded metering installations were installed by Ausgrid in the period between 1 July to 30 March 2018. We have updated for actual new/upgraded metering installations in our Revised Proposal.
	Conversion of solar bonus scheme sites	The Solar Benefit Scheme (SBS) closed on 31 December 2016. From this date, former SBS participants had a significant financial incentive to install a new meter. ⁶ This is in order to switch from gross to net metering.
Reactive replacement of faulty type 5/6 metering installations	Following the commencement of the Power of Choice metering reforms, our type 5 and 6 meters will continue to be reactively replaced.	Our reactive meter replacement of type 5 and 6 meters has historically averaged 12,000 NMIs per year.
	Reactive replacements occur when an individual meter (of a metering installation) fails in service; for example, due to physical damage.	We have trended forward this historical average to forecast the volume of faulty type 5 and 6 metering installations which will be reactively replaced with advanced equivalents in the forthcoming period. The AER has previously accepted reactive replacements based on an average of historical volumes. ⁷
Proactive replacement to be completed (meter family failures)	Metrology procedures administered by AEMO require our meters to be subject to regular sample testing.	The AER approved the proactive replacement of 255,487 NMIs in our 2015 - 19 determination.
	Where a statistically significant sample of meters belonging to a make/model fail accuracy standards, AEMO's metrology procedures require the entire family within that make/model to be proactively replaced.	We were unable to complete this full program due to the responsibility for replacing meters switching to the contestable market from 1 Dec 2017. Of our approved program, approximately 80,000 NMIs were yet to be replaced as of July 2018. We have assumed that they will be replaced with advanced meters by the new responsible parties by 2021.
Advanced meter deployments by retailers including upgrades	Customers now have the opportunity to take up a retail offering inclusive of an advanced meter. When this occurs the Ausgrid meters installed at the customer's premises are removed. This may include required upgrades, for example due to installation of solar PV. When such upgrades occur, the existing Ausgrid meters are replaced.	Our assumptions have been independently reviewed by Sankofa Consulting and found to be robust. Some adjustments to our draft proposal have been made to reflect observed trends in deployment during FY18 and FY19.

⁶ <http://www.resourcesandenergy.nsw.gov.au/energy-consumers/solar/solar-bonus-scheme/the-solar-bonus-scheme-is-closed>

⁷ AER, Ausgrid final decision 2015-19, April 2015, p. 16-56.

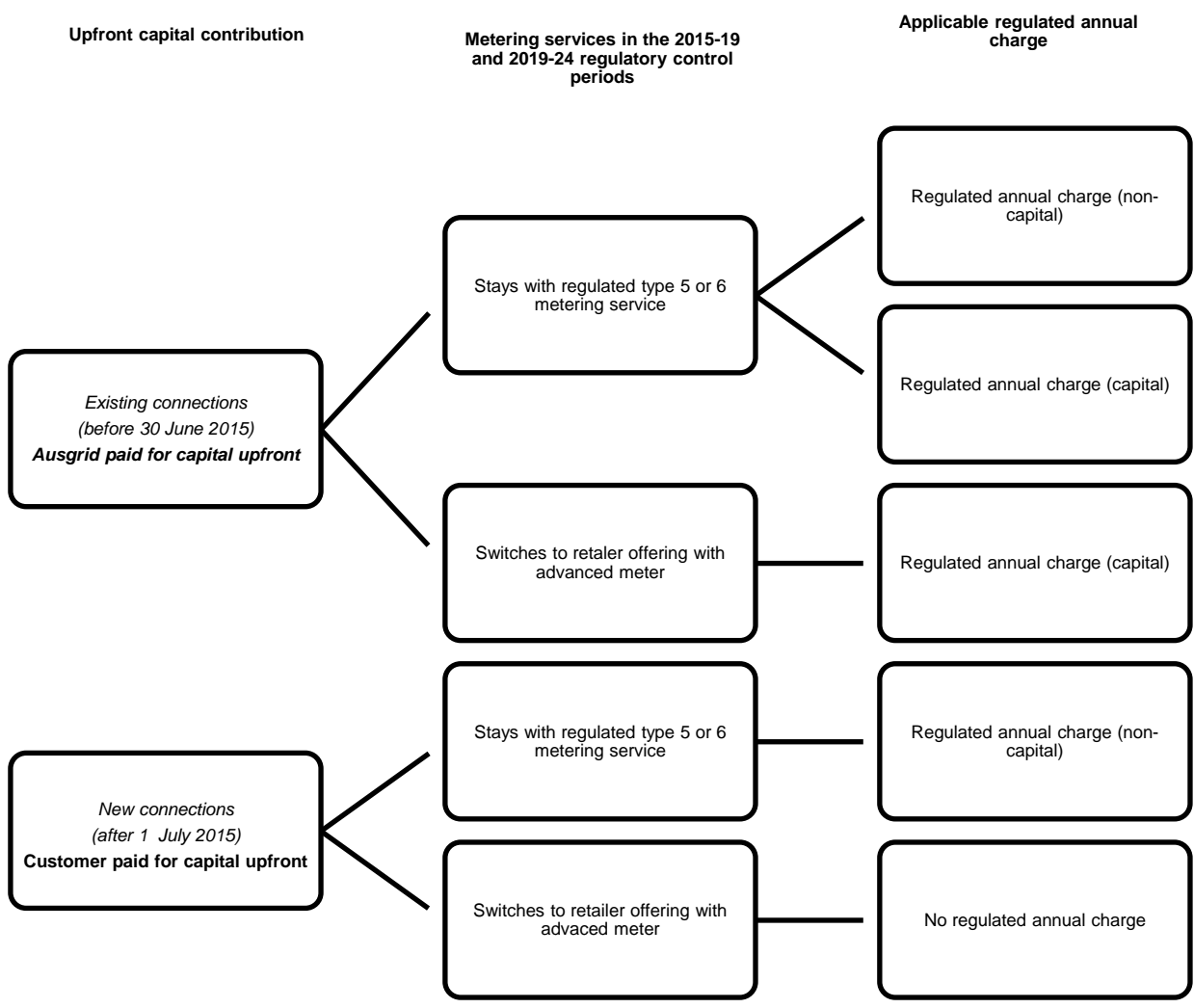
6 Pricing approach

Our Revised Proposal utilises the structure of metering charges the AER approved for our 2014-19 regulatory period and which the AER’s Draft Decision was to apply again. In this section, we outline how this structure works.

6.1 Structure of metering charges

To give effect to the AER’s metering tariff structure, we have proposed metering charges comprising of two components: a capital component and a non-capital component. In Figure 3 below, we have reproduced a diagram that the AER included in our 2014-19 regulatory determination to show how these two components relate to different metering customers.

Figure 3
Structure of metering charges



Under this charging structure, the capital and non-capital components of our type 5 and 6 metering fees recover different streams of our ‘building block’ revenue:

CHARGE	BUILDING BLOCK REVENUE	
Capital component	Metering RAB recovery ⁸	Tax allowance
Non-capital component	Type 5 and 6 metering opex	

6.2 Before 30 June 2015 customers

The AER’s structure of metering charges requires a customer who has had a type 5 or 6 meter provided by Ausgrid before 30 June 2015 to pay the following:

- capital (metering RAB recovery and tax allowance) component
- non-capital (opex) component

If these customers leave our type 5 and 6 metering service, they are no longer required to pay the non-capital component. They will nonetheless still be required to pay the capital component after they have switched.

The rationale behind the requirement to continue paying the capital component after a customer has left our type 5 and 6 metering services lies with how we have recovered our capital costs.

Prior to 30 June 2015, this involved Ausgrid funding the full capital cost of a meter on the behalf of our customers. These costs were then rolled in an asset base (our metering RAB) and gradually recovered over time through levying metering charges.

The AER’s charging structure, which we have applied, ensures that this cost recovery process will not be disturbed by the AEMC’s reforms expanding contestability in the provision of metering services. It does this by allocating our building block revenue from the depreciation of our metering RAB to the capital component of our annual metering charges.

We agree with the AER that this approach is ‘the most appropriate way to recover metering capital costs incurred in providing regulated metering services that risk becoming stranded if a customer switches [to a retail offering that includes an advanced metering service]’.⁹ We have accordingly applied this charging structure in our 2019-24 regulatory proposal.

6.3 After 30 June 2015 customers

Where a customer received a type 5 or 6 meter from Ausgrid after 30 June 2015, they are only required to pay:

- non-capital (opex) component.

Customers who received a new meter after 30 June 2015 from Ausgrid do not pay the capital component of our type 5 and 6 metering charges. This is because these customers were required to pay for the capital cost of their meter upfront at time of installation. The capital cost associated with their meter is therefore isolated from our metering RAB, with the consequence that they pay no metering RAB recovery costs. If a customer who received a meter from Ausgrid after 30 June 2015 switches to a retailer offering inclusive of an advanced meter, then they no longer pay the non-capital component of our charges too.

⁸ The metering RAB is largely the undepreciated value of our population of type 5 and 6 meters.

⁹ AER, *Ausgrid final decision 2015-19*, April 2015, p. 16-30.