Pricing proposal models handbook

Electricity distribution network service providers

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AUSTRALIAN ENERGY REGULATOR

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1 Introduction

This handbook provides guidance on how to use the Australian Energy Regulator's (**AER**) standardised pricing model and price-capped alternative control services (**ACS**) model (**the models**).

The models are intended for use by electricity distribution network service providers (**distributors**) to submit data to the AER to support their pricing proposals, as required under section 6.18.2 of the National Electricity Rules (**NER**). We have developed the models in consultation with the distributors.

1.1 Role of the models

The models house data, undertake analysis, and produce outputs to demonstrate compliance with the NER, the applicable regulatory determination and tariff structure statements (**TSS**).

The models have been developed to replace the differing suites of models currently used by distributors. This is to provide efficiencies in preparation and analysis, as well as making the models more consistent and transparent for stakeholders to engage with.

1.2 Confidentiality

Our obligations regarding confidentiality and the disclosure of information provided to us by a distributor are governed by the *Competition and Consumer Act 2010 (Cth)*, the National Electricity Law, and the NER.

1.3 Process for revision

We intend to amend or replace the models from time to time to reflect further stages of our Pricing Process Review. Beyond this review, we intend to amend or replace the model with each round of distribution determinations to reflect any changes required resulting from the determination. We will publish a revised version of this handbook to accompany each new version of the pricing models we amend or replace in the future.

1.4 Regulatory instruments

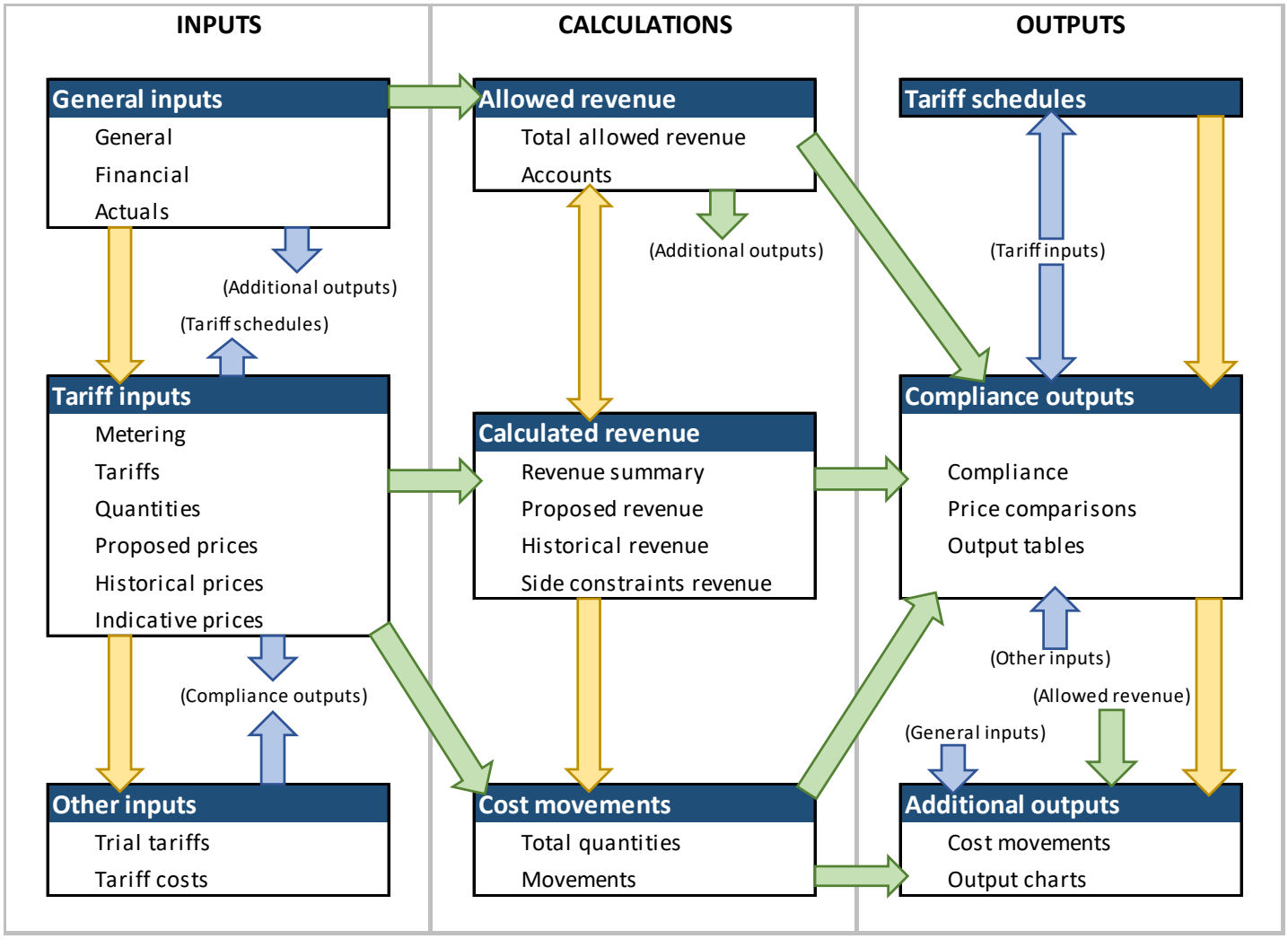
The NER and applicable regulatory determinations are the regulatory instruments that prescribe the mechanisms and requirements that underlie the annual pricing process. The models have been prepared in line with the requirements of these regulatory instruments. For further information on the pricing rules and principles, the requirements of a pricing proposal, and the requirements of the AER in approving a pricing proposal, see NER s6.18.6. For further information on the revenue cap and price cap mechanisms, the side constraints mechanism, the unders/overs account mechanism, and rounding guidance applicable to each distributor, see the 'Control Mechanisms' attachment of the applicable regulatory determination.

2 Pricing model

The pricing model is the main supporting document for distributors' pricing proposals. The pricing model includes inputs, calculations, and outputs that assist the distributor in demonstrating compliance, as well as assisting the AER in its analysis of a pricing proposal. The pricing model also provides additional output charts and cost movements analysis to assist with stakeholder engagement and communication of the proposal.

Figure 1 provides an overview of the model, categorised into three modules – inputs, calculations, and outputs.

Figure 1 Overview of pricing model



Note: Yellow arrows represent data flows within each module, green and blue arrows represent data flows between modules. Blue arrows used where a direct arrow is impractical in the visual representation.

At the beginning of each distributor's regulatory control period, the AER will build a bespoke model for the distributor, including general inputs, descriptors, and tariff information, as well

as relevant historical information.[1] In doing so, we will adjust the model to add any jurisdictional-specific elements. At this time, and prior to each annual pricing process, we will input relevant inputs for the upcoming pricing proposal.

Prior to submitting their pricing proposal each year, the distributor will verify the AER's inputs, add inputs relating to proposed prices, forecast quantities, and other inputs that are known only to the distributor or finalised after the AER provides the model. This will include forecast and estimated designated pricing proposal costs (**DPPC**) and jurisdictional scheme amounts (**JSA**). The distributor will also engage with the AER regarding certain components of the model, including any issues with the AER's provided inputs.

In the sections below, we have provided a summary of each worksheet. Any examples provided in the sections below reflect example data only, and do not reflect data of any particular business.

The model includes a macro that hardcodes and redacts those parts of the model that include confidential tariffs. These confidential tariffs are generally tariffs that are related to individual customers and may contain customer information, or prices and consumption/demand quantities that are able to be identified as applicable to a certain customer.

We prefer the structure of the model is not altered without prior discussion with us. This will ensure that any errors that arise are appropriately considered and actioned across all distributors' models, consistency is maintained, and the function of the model is maintained.[2]

2.1 General

This model includes both a title page and a lookups page.

2.1.1 Title page ('Pricing model')

The title page includes an inputs key, version log, contents list, and change log. The change log is to detail changes between models provided in pre-lodgement engagement and models provided in pricing proposal submissions.

The title page includes a redaction button. This button should be used once the model is completed for final submission to create a public version of the model for publication. It hard-codes summaries of data related to confidential tariffs, and redacts data related to confidential tariffs. This action cannot be undone. A confidential version of the model should be saved prior to submission to the AER, and this should only be done once all components of the model are completed. File names for each version of the model should clearly identify public and confidential versions.

Figure 2 provides the inputs key, while Figure 3 provides an example of the title page worksheet.

[1] This will be completed prior to the 2022/23 pre-lodgement engagement process for each distributor for the first version of the model.

Figure 2 Inputs key

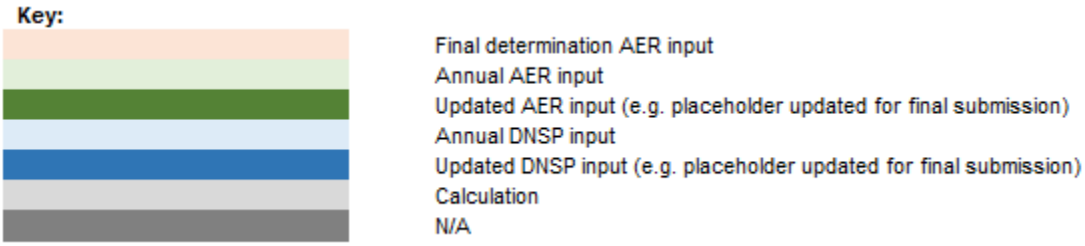
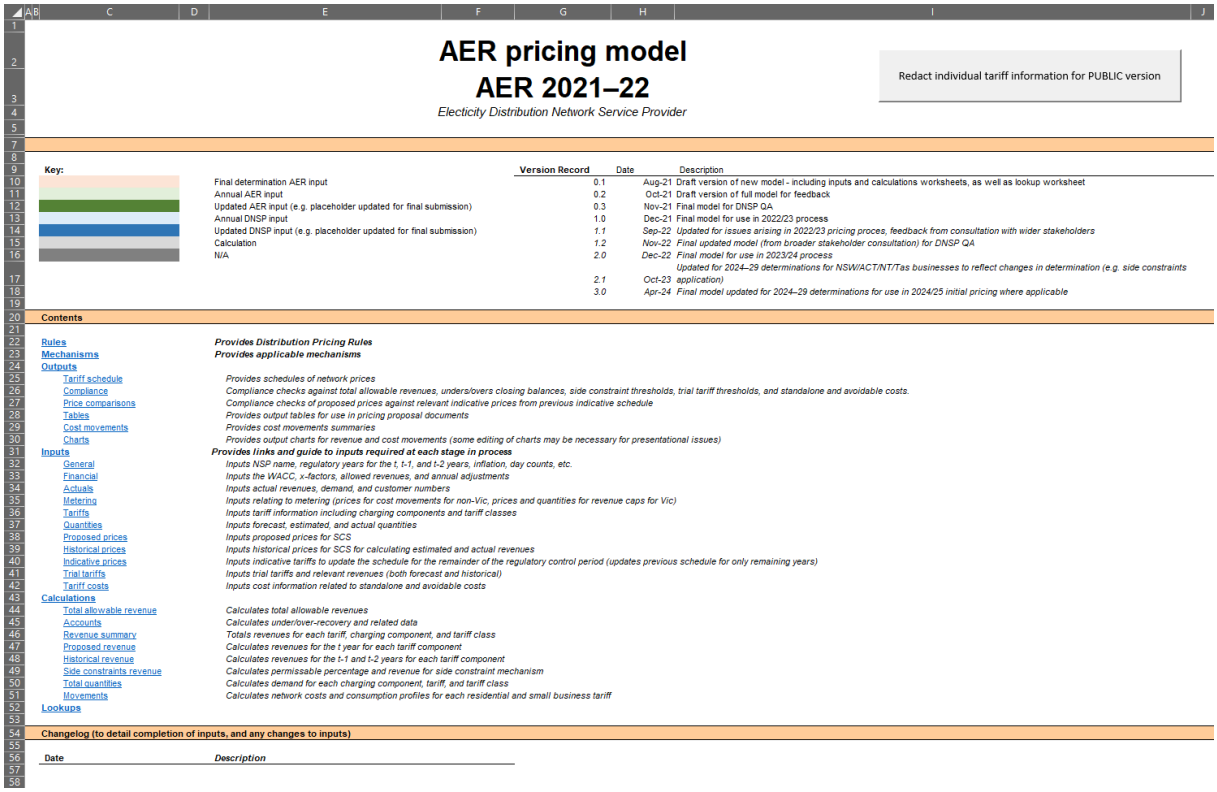


Figure 3 Title page worksheet



2.1.2 Lookups

The lookups worksheet contains lookups for use throughout the model, including unit denominations, month and year references, and metering tariffs (for cost movements). The lookups page is also used to differentiate between Victorian and non-Victorian distributors, particularly for historical years and inflation (Victorian distributors operated on calendar years historically).

2.2 Outputs

The outputs module provides tariff schedules, compliance checks, and demonstrations of compliance through output tables.

2.2.1 Tariff schedule

The tariff schedule worksheet provides the tariff schedules for network prices for the upcoming financial year (as well as distribution, DPPC, and JSA components where applicable), and metering prices for Victorian customers.

The tariff schedules submitted in this worksheet will be used for the formal approval process. Any additional versions of these tariff schedules provided will not be considered by the AER.

2.2.2 Compliance

The compliance worksheet checks compliance against allowed revenue caps, thresholds for side constraints and tariff trials, and cost-reflectivity bounds of tariff class revenue.

Compliance table 1 measures the sum of all relevant forecast revenues against the allowable revenue set either by the relevant formula in our determination (for distribution revenue, and metering revenue for Victorian distributors), or by the method to pass-through costs set in the NER (DPPC and JSA).[3]

Compliance table 2 checks that the closing balances of unders/overs accounts do not exceed 0.[4] Our determination requires the closing balance of unders/overs accounts to be as close to 0 as possible. Where a closing balance is greater than 0, this indicates that the revenue being recovered from customers for the upcoming year exceeds that allowed.[5] Therefore this check will flag non-compliance where the balance exceeds 0.[6] Proximity to 0 for compliance with the determinations will be considered manually.

Compliance table 3 measures the movement in tariff class revenues against the permissible percentage threshold in line with the side constraints mechanism.[7]

Compliance table 4 measures the forecast, estimated, and actual revenues from trial tariffs (also known as sub-threshold tariffs) for each year against the allowable thresholds set in the NER.[8]

Compliance table 5 measures the forecast tariff class revenues against the lower and upper bounds set by the avoidable and standalone costs, respectively.[9]

Figure 4 provides an example of the compliance worksheet.

3 NER cll. 6.18.7(b) and 6.18.7A(b).

4 NER cll. 6.18.7(b),(c) and 6.18.7A(b),(c).

5 The allowable revenues are calculated to incorporate a balancing adjustment – this reflects an amount required to balance the opening balance of the account for that year. A positive closing balance will lead to revenue recovered that reflects the balancing adjustment plus the positive closing balance – exceeding the allowed revenue.

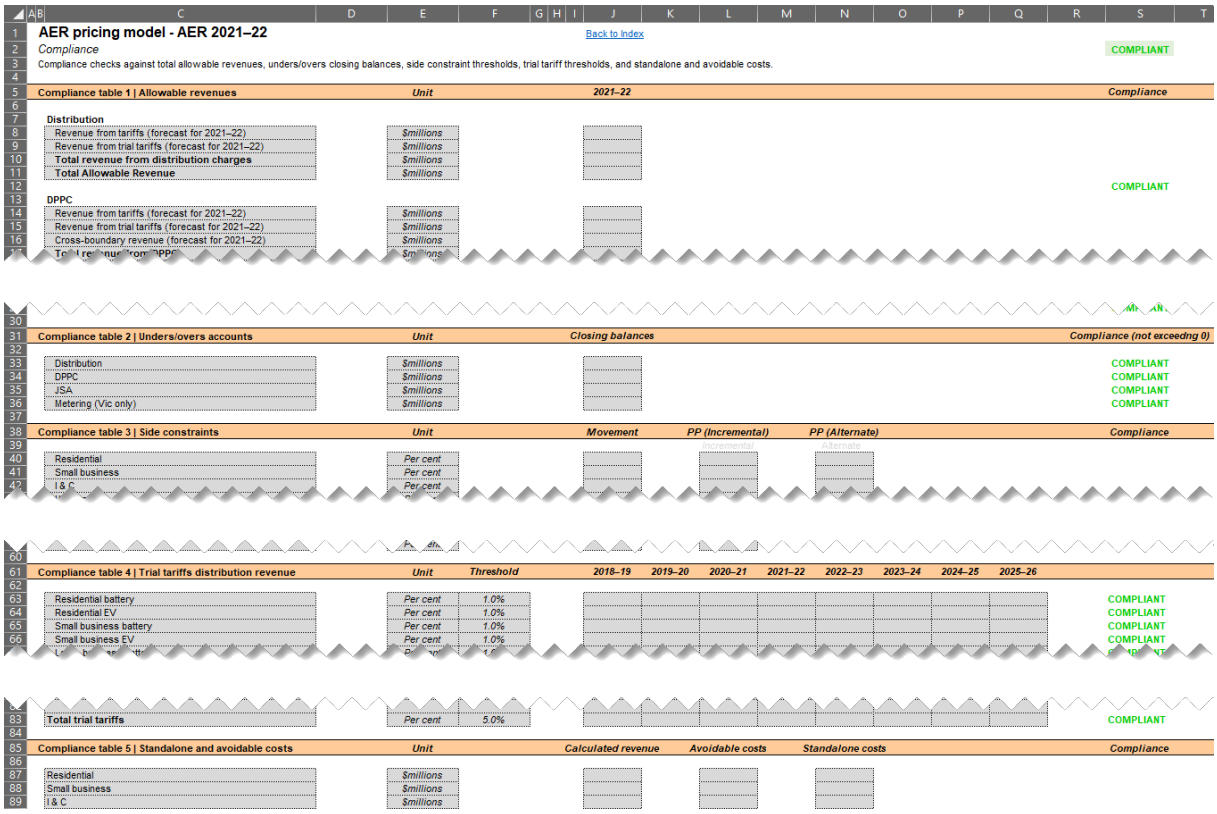
6 There may be instances where a jurisdictional scheme revenue is set through jurisdictional regulation. In these cases, compliance with the jurisdictional regulation and the regulated revenue recovery will mean that a positive closing balance may exist and will be considered as compliant.

7 NER s6.18.6.

8 NER cl. 6.18.1C(a).

9 NER cl. 6.18.5(e).

Figure 4 Compliance worksheet



2.2.3 Price comparisons

The price comparisons worksheet checks proposed prices against indicative prices previously provided for that year. For year 1 of a regulatory control period, these indicative prices are as provided in the TSS. For other years, these indicative prices are as provided in the most recent pricing proposal. These comparisons occur at the total network price only. Material differences will be highlighted, and will require explanation through the notes section on the worksheet.[10]

2.2.4 Tables

The tables worksheet provides output tables to demonstrate compliance. These output tables contain information that is required as a part of the pricing proposal by the NER, or is frequently provided by distributors as additional information.Output table 1 provides the expected weighted average revenue for each tariff class for the current and upcoming years, and the relevant movements.[11] The table also provides the expected weighted average revenue used for the current year in side constraints (i.e., current year prices and forecast year quantities), and the relevant movements.

10 NER cl. 6.18.2(b)(7A).

Output table 2 provides the revenue breakdowns for, including annual adjustments made to, each component of revenue.[12] Output table 2 also provides the revenue breakdowns in the unders/overs accounts for each component of revenue.

Output table 3 provides the expected weighted average revenues for each tariff class, as used for the purpose of side constraints compliance. Output table 3 also provides the breakdown of the permissible percentage.[13]

Output table 4 provides the forecast tariff class revenues alongside the lower and upper bounds set by the avoidable and standalone costs, respectively.[14]

Output table 5 provides a breakdown of energy consumption by tariff class, and by small customer type. These output tables are provided for information and are frequently provided by distributors as additional information.

2.2.5 Cost movements

The cost movements worksheet provides analysis on the expected movements in the network costs for each tariff applicable to residential and small business customers. These cost movements are provided both as a total network cost movement, as well as movements in each of the components (distribution, DPPC, and JSA). For the purpose of cost movement analysis and providing a representation of the movements expected for the typical customer, metering charges are included in this analysis.

2.2.6 Charts

The charts worksheet provides output charts to support the pricing proposals and stakeholder engagement. These output charts include annual revenue movements, waterfall charts reflecting annual revenue adjustments, and waterfall charts reflecting cost movements. The output charts are used by the AER to communicate the outcome of the approved pricing proposals. Distributors are encouraged to use the same charts for consistent messaging.

Output chart 1 provides a breakdown of revenue components (distribution, DPPC, JSA, and metering for Victorian distributors), and the movement between the current year and upcoming year. Output chart 1 also provides the base distribution revenue (and metering for Victorian distributors) as set in the applicable determination, and updated for annual cost of debt, for reference.

Output chart 2 provides a waterfall representation of the movements in overall revenues between the current year and the upcoming year. These movements reflect the movements in each of the components of revenue and relevant adjustments (such as incentive schemes, or under/over-recoveries). An ‘other rebalancing’ component is included to reflect forecast movements in demand/consumption, the discretion a distributor has in setting prices within thresholds, and any other impacting factors.

Output charts 3 and 4 provide waterfall representations of cost movements for particular tariffs by components of network prices (including metering for the purpose of reflective cost movements). Waterfall representations of cost movements for particular tariffs by annual adjustments (as per Output chart 2) are also provided. These charts are provided for residential (output chart 3) and small business (output chart 4) customers and allow the user to select multiple tariffs for side-by-side comparison. Tariffs for analysis are selected from drop-down menus above the charts.

Some editing of these charts may be required prior to use to ensure labels are positioned correctly. Figure 5 provides an example of the charts worksheet.

Figure 5 Charts worksheet

2.3 Inputs

The inputs module houses all the inputs required for the pricing model.

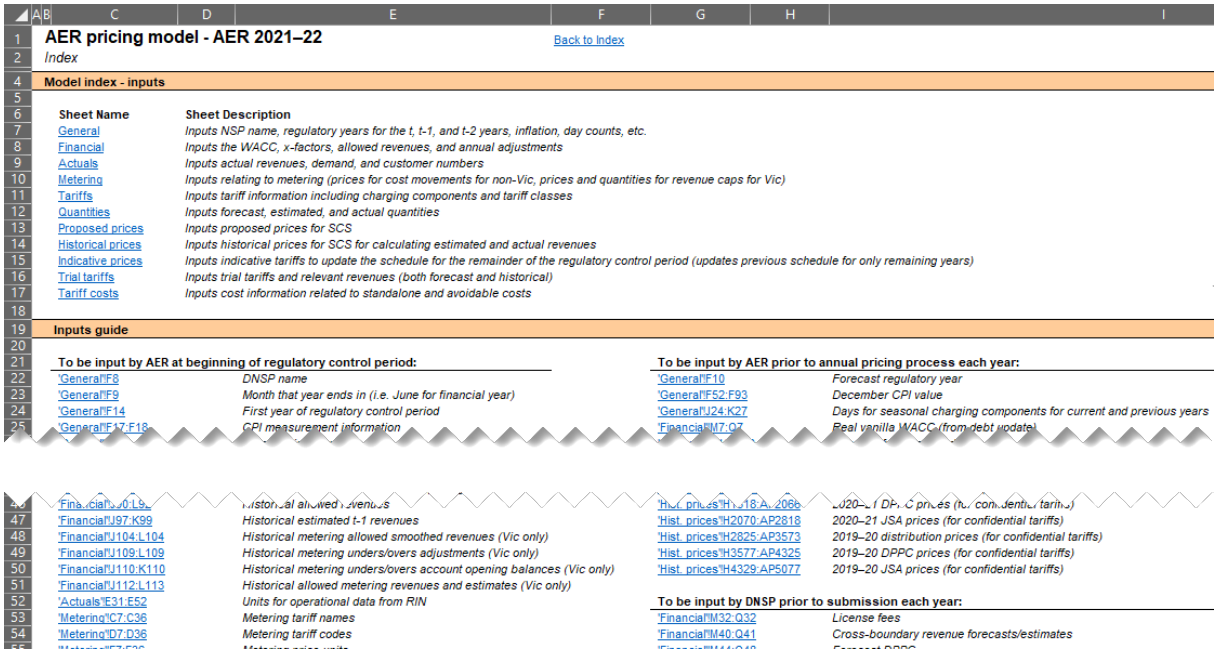
As noted above in section 2.1, Figure 2 provides a key to demonstrate the colour-coding of the inputs. Colour-coding has also been applied to the worksheet tabs, reflecting the last touchpoint for each worksheet. For example, the Financial worksheet requires inputs at all stages, but is coloured blue to reflect the last inputs are required by the distributor for submission of the model.

Orange cells indicate data to be input by the AER at the commencement of the regulatory control period, and green cells indicate data to be input by the AER prior to each pricing process. Blue cells indicate data to be input by the distributor prior to submission of the pricing model.

Where placeholders are used for data in the pre-lodgement engagement process and then updated for the final submission before 1 April, these cells should be shaded a darker green or blue for easy identification. Additionally, where data is changed by the distributor for more updated data, a disputed input, or other reason, that data should be shaded in the same dark blue used for updating placeholders.

The inputs summary worksheet provides an inputs guide with links to the relevant cell ranges for inputs. Figure 6 provides an example of the inputs summary worksheet.

Figure 6 Inputs summary worksheet



1	**AER pricing model - AER 2021–22**	Back to Index
2	*Index*	
4	**Model index - inputs**	
6	**Sheet Name**	**Sheet Description**
7	General	*Inputs NSP name, regulatory years for the t, t-1, and t-2 years, inflation, day counts, etc.*
8	Financial	*Inputs the WACC, x-factors, allowed revenues, and annual adjustments*
9	Actuals	*Inputs actual revenues, demand, and customer numbers*
10	Metering	*Inputs relating to metering (prices for cost movements for non-Vic, prices and quantities for revenue caps for Vic)*
11	Tariffs	*Inputs tariff information including charging components and tariff classes*
12	Quantities	*Inputs forecast, estimated, and actual quantities*
13	Proposed prices	*Inputs proposed prices for SCS*
14	Historical prices	*Inputs historical prices for SCS for calculating estimated and actual revenues*
15	Indicative prices	*Inputs indicative tariffs to update the schedule for the remainder of the regulatory control period (updates previous schedule for only remaining years)*
16	Trial tariffs	*Inputs trial tariffs and relevant revenues (both forecast and historical)*
17	Tariff costs	*Inputs cost information related to standalone and avoidable costs*
19	**Inputs guide**	
21	**To be input by AER at beginning of regulatory control period:**	**To be input by AER prior to annual pricing process each year:**
22	'General'!F8 — *DNSP name*	'General'!F10 — *Forecast regulatory year*
23	'General'!F9 — *Month that year ends in (i.e. June for financial year)*	'General'!F52:F93 — *December CPI value*
24	'General'!F14 — *First year of regulatory control period*	'General'!J24:K27 — *Days for seasonal charging components for current and previous years*
25	'General'!F17:F18 — *CPI measurement information*	'Financial'!M7:Q7 — *Real vanilla WACC (from debt update)*
47	'Financial'!J97:K99 — *Historical estimated t-1 revenues*	'Hist. prices'!H2070:AP2818 — *2020–21 JSA prices (for confidential tariffs)*
48	'Financial'!J104:L104 — *Historical metering allowed smoothed revenues (Vic only)*	'Hist. prices'!H2825:AP3573 — *2019–20 distribution prices (for confidential tariffs)*
49	'Financial'!J109:L109 — *Historical metering unders/overs adjustments (Vic only)*	'Hist. prices'!H3577:AP4325 — *2019–20 DPPC prices (for confidential tariffs)*
50	'Financial'!J110:K110 — *Historical metering unders/overs account opening balances (Vic only)*	'Hist. prices'!H4329:AP5077 — *2019–20 JSA prices (for confidential tariffs)*
51	'Financial'!J112:L113 — *Historical allowed metering revenues and estimates (Vic only)*	
52	'Actuals'!E31:E52 — *Units for operational data from RIN*	**To be input by DNSP prior to submission each year:**
53	'Metering'!C7:C36 — *Metering tariff names*	'Financial'!M32:Q32 — *License fees*
54	'Metering'!D7:D36 — *Metering tariff codes*	'Financial'!M40:Q41 — *Cross-boundary revenue forecasts/estimates*

2.3.1 General

The general inputs worksheet requires general data to be input that relates to the distributor and that underlies certain components of the model.

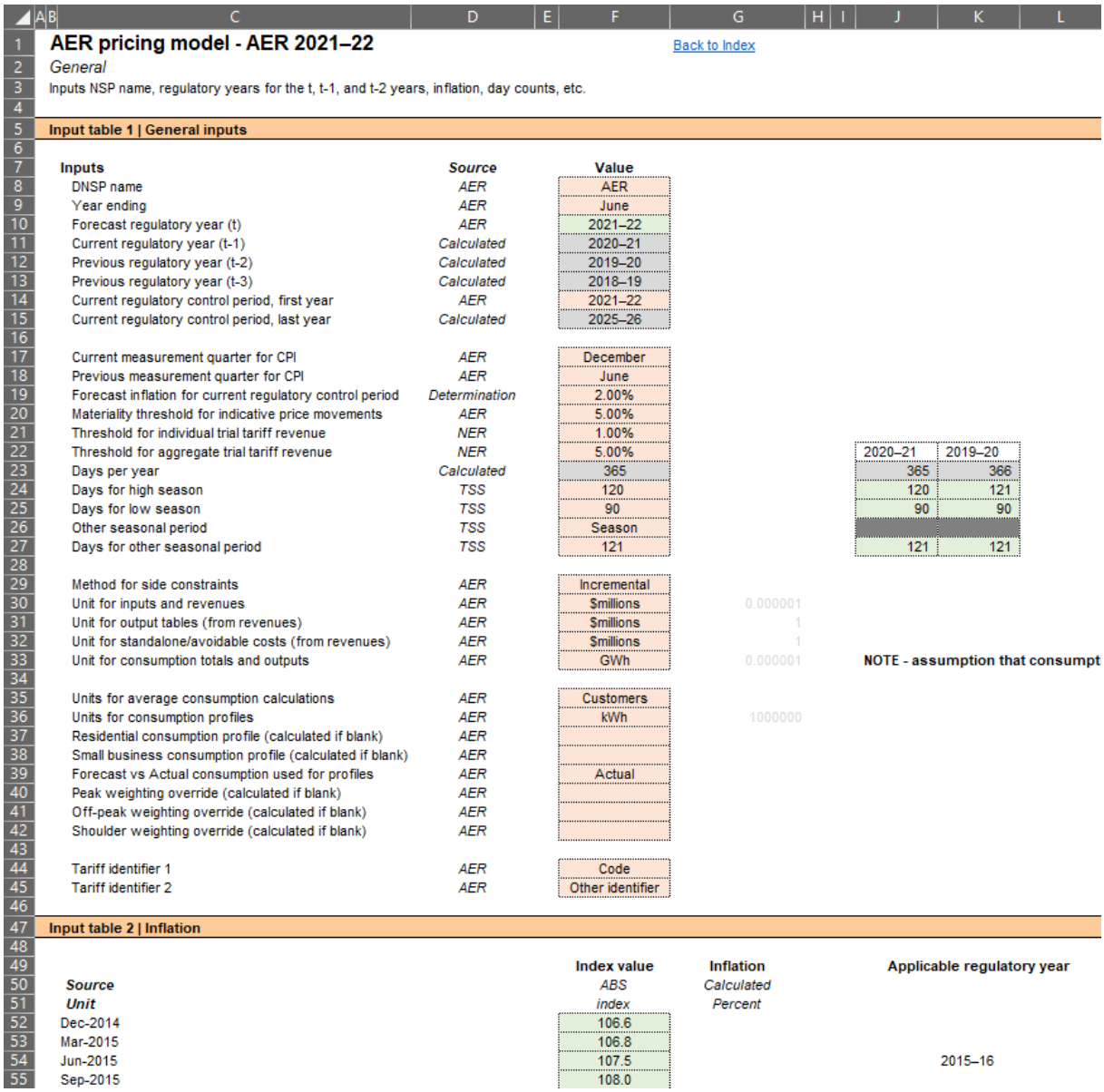
Where the forecast regulatory year is updated, certain parts of the model will provide error results until the relevant CPI measurement is input.

Table 1 provides guidance on the data inputs on the general inputs worksheet. Figure 7 provides an example of the general inputs worksheet.

Table 1 General inputs

Input	Table	Cell	Who?	Notes
Distributor name	1	F8	AER	Select from drop-down menu
Year ending	1	F9	AER	Select from drop-down menu Should all be June to reflect financial year
Forecast regulatory year	1	F10	AER	Select from drop-down menu Reflects upcoming regulatory year (year t)
Current regulatory control period, 1st year	1	F14	AER	Select from drop-down menu
Current measurement quarter for CPI	1	F17	AER	Select from drop-down menu Should all be December
Previous measurement quarter for CPI	1	F18	AER	Select from drop-down menu Should be June for Victoria, Dec. for others
Forecast inflation	1	F19	AER	From SCS PTRM from determination
Materiality threshold	1	F20	AER	For movements from indicative prices
Seasonal information	1	F24:K27	AER	To give effect to any seasonal charging components in the TSS
Method for side constraints	1	F29	AER	Select from drop-down menu In line with historical pricing proposals
Inputs/outputs units	1	F30:F36	AER	Select from drop-down menu Consistency intended – distributor should discuss with AER if desire different units
Consumption profiles	1	F37:F38	Any	Enter consumption profile to override calculated profile Should be blank in submission – distributors/stakeholders can input profiles for own analysis
Consumption used for profiles	1	F39	AER	Select from drop-down menu AER set for consistent approach – distribution/stakeholders can change for own analysis
Time-of-use weightings	1	F40:F42	Any	Enter time-of-use weightings to override calculated weightings Should be blank in submission – distributors/stakeholders can input profiles for own analysis
Tariff identifiers	1	F44:F45	AER	To include any additional tariff identifiers such as tariff codes, or locational identifiers
CPI	2	F52:F92	AER	Latest actual consumer price index

Figure 7 General inputs worksheet



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General

Inputs NSP name, regulatory years for the t, t-1, and t-2 years, inflation, day counts, etc.

Input table 1 | General inputs

Inputs	Source	Value
DNSP name	*AER*	AER
Year ending	*AER*	June
Forecast regulatory year (t)	*AER*	2021–22
Current regulatory year (t-1)	*Calculated*	2020–21
Previous regulatory year (t-2)	*Calculated*	2019–20
Previous regulatory year (t-3)	*Calculated*	2018–19
Current regulatory control period, first year	*AER*	2021–22
Current regulatory control period, last year	*Calculated*	2025–26
Current measurement quarter for CPI	*AER*	December
Previous measurement quarter for CPI	*AER*	June
Forecast inflation for current regulatory control period	*Determination*	2.00%
Materiality threshold for indicative price movements	*AER*	5.00%
Threshold for individual trial tariff revenue	*NER*	1.00%
Threshold for aggregate trial tariff revenue	*NER*	5.00%
Days per year	*Calculated*	365
Days for high season	*TSS*	120
Days for low season	*TSS*	90
Other seasonal period	*TSS*	Season
Days for other seasonal period	*TSS*	121
Method for side constraints	*AER*	Incremental
Unit for inputs and revenues	*AER*	$millions
Unit for output tables (from revenues)	*AER*	$millions
Unit for standalone/avoidable costs (from revenues)	*AER*	$millions
Unit for consumption totals and outputs	*AER*	GWh
Units for average consumption calculations	*AER*	Customers
Units for consumption profiles	*AER*	kWh
Residential consumption profile (calculated if blank)	*AER*	
Small business consumption profile (calculated if blank)	*AER*	
Forecast vs Actual consumption used for profiles	*AER*	Actual
Peak weighting override (calculated if blank)	*AER*	
Off-peak weighting override (calculated if blank)	*AER*	
Shoulder weighting override (calculated if blank)	*AER*	
Tariff identifier 1	*AER*	Code
Tariff identifier 2	*AER*	Other identifier

	2020–21	2019–20
	365	366
	120	121
	90	90
	121	121

0.000001
1
1
0.000001

NOTE - assumption that consumpt

1000000

Input table 2 | Inflation

	Index value	Inflation	Applicable regulatory year
Source	*ABS*	*Calculated*	
Unit	*index*	*Percent*	
Dec-2014	106.6		
Mar-2015	106.8		
Jun-2015	107.5		2015–16
Sep-2015	108.0		

2.3.2 Financial

The financial inputs worksheet requires data to be input that relates to the calculation of allowed revenues and the unders/overs accounts. A number of these inputs may be placeholders for the purpose of the pre-lodgement engagement process.

DPPC and JSA breakdowns will be set in line with breakdowns in the income and expenditure tables of the annual reporting RINs for reconciliation purposes as well as transparency and consistency. This will differ from historical approaches (particularly for Victorian distributors) where cross-boundary expenditure may have been reported in pricing proposals as net of cross-boundary revenue.

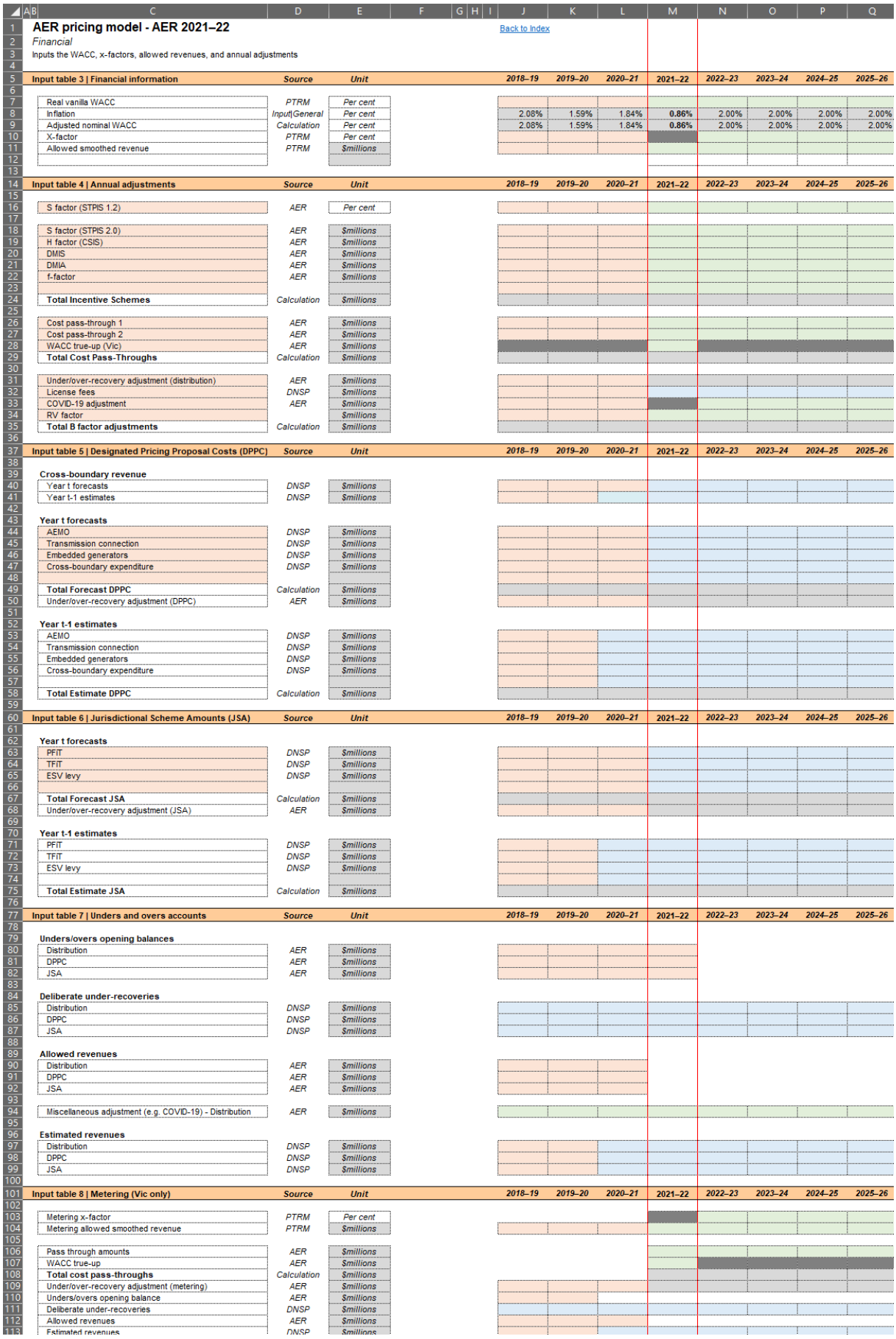
Where appropriate, historical inflation and WACC should be hard coded over calculated values to reflect appropriate historical approach.

Table 2 provides guidance on the data inputs on the financial inputs worksheet. Figure 8 provides an example of the financial inputs worksheet.

Table 2 Financial inputs

Input	Table	Cell	Who?	Notes
Adjustment labels	4	C16:C34	AER	Labels to reflect applicable annual adjustments as per the determination
Cost breakdown labels	5,6	C44:C48, C63:C66	AER	Labels to reflect cost breakdowns available in regulatory information notices (**RIN**)
Under/over-recovery adjustments	5,6,8	J50:Q50, J68:Q68, J109:Q109	AER	AER to input historical data
Real vanilla WACC	3	J7:Q7	AER	From latest applicable PTRM
X-factor	3	N10:Q10	AER	From latest applicable PTRM
Allowed smoothed revenue	3	J11:Q11	AER	From latest applicable PTRM
Incentive schemes	4	J16:Q23	AER	As determined by AER previously
Cost pass-throughs	4	J26:Q28	AER	As approved by AER
Other adjustments	4	J31:Q34	AER/ distributor	As applicable Distributors' inputs to include supporting documentation (e.g., invoices for license fees) and include calculations in formula or supporting worksheet (e.g., to apply WACC)
Cross-boundary revenue	5	J40:Q41	AER/ distributor	As applicable AER to input historical data
Disaggregated DPPC forecasts and estimates	5	J44:Q48, J53:Q57	AER/ distributor	AER to input historical data Distributors' inputs to include supporting documentation where available If estimates blank, relevant forecasts used
Disaggregated JSA forecasts and estimates	6	J63:Q66, J71:Q74	AER/ distributor	AER to input historical data Distributors' inputs to include supporting documentation where available If estimates blank, relevant forecasts used
Unders/overs opening balance	7	J80:K82	AER	AER to input balance to be carried forward in relevant year (or zero balance in the case of applicable remittals)
Deliberate under-recoveries	7	J85:Q87	Distributor	Distributors' inputs to include supporting documentation where available
Allowed revenues	7	J90:L92	AER	AER to input historical data
Miscellaneous adjustments	7	J94:Q94	AER	AER to use for any applicable miscellaneous adjustments (e.g., COVID-19 adjustment for CitiPower, as per determination)
Estimated revenues	7	J97:Q99	AER/ distributor	AER to input historical data If blank, estimates will be calculated from relevant prices and estimated quantities
Metering inputs	8	J103:Q113	AER/ distributor	As per applicable inputs for tables 3,4, 7 above

Figure 8 Financial inputs worksheet



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Financial

Inputs the WACC, x-factors, allowed revenues, and annual adjustments

Input table 3 | Financial information	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Real vanilla WACC	PTRM	Per cent								
Inflation	Input|General	Per cent	2.08%	1.59%	1.84%	0.86%	2.00%	2.00%	2.00%	2.00%
Adjusted nominal WACC	Calculation	Per cent	2.08%	1.59%	1.84%	0.86%	2.00%	2.00%	2.00%	2.00%
X-factor	PTRM	Per cent								
Allowed smoothed revenue	PTRM	$millions								

Input table 4 | Annual adjustments	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
S factor (STPIS 1.2)	AER	Per cent								
S factor (STPIS 2.0)	AER	$millions								
H factor (CSIS)	AER	$millions								
DMIS	AER	$millions								
DMIA	AER	$millions								
f-factor	AER	$millions								
Total Incentive Schemes	Calculation	$millions								
Cost pass-through 1	AER	$millions								
Cost pass-through 2	AER	$millions								
WACC true-up (Vic)	AER	$millions								
Total Cost Pass-Throughs	Calculation	$millions								
Under/over-recovery adjustment (distribution)	AER	$millions								
License fees	DNSP	$millions								
COVID-19 adjustment	AER	$millions								
RV factor		$millions								
Total B factor adjustments	Calculation	$millions								

Input table 5 | Designated Pricing Proposal Costs (DPPC)	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Cross-boundary revenue										
Year t forecasts	DNSP	$millions								
Year t-1 estimates	DNSP	$millions								
Year t forecasts										
AEMO	DNSP	$millions								
Transmission connection	DNSP	$millions								
Embedded generators	DNSP	$millions								
Cross-boundary expenditure	DNSP	$millions								
Total Forecast DPPC	Calculation	$millions								
Under/over-recovery adjustment (DPPC)	AER	$millions								
Year t-1 estimates										
AEMO	DNSP	$millions								
Transmission connection	DNSP	$millions								
Embedded generators	DNSP	$millions								
Cross-boundary expenditure	DNSP	$millions								
Total Estimate DPPC	Calculation	$millions								

Input table 6 | Jurisdictional Scheme Amounts (JSA)	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Year t forecasts										
PFiT	DNSP	$millions								
TFiT	DNSP	$millions								
ESV levy	DNSP	$millions								
Total Forecast JSA	Calculation	$millions								
Under/over-recovery adjustment (JSA)	AER	$millions								
Year t-1 estimates										
PFiT	DNSP	$millions								
TFiT	DNSP	$millions								
ESV levy	DNSP	$millions								
Total Estimate JSA	Calculation	$millions								

Input table 7 | Unders and overs accounts	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Unders/overs opening balances										
Distribution	AER	$millions								
DPPC	AER	$millions								
JSA	AER	$millions								
Deliberate under-recoveries										
Distribution	DNSP	$millions								
DPPC	DNSP	$millions								
JSA	DNSP	$millions								
Allowed revenues										
Distribution	AER	$millions								
DPPC	AER	$millions								
JSA	AER	$millions								
Miscellaneous adjustment (e.g. COVID-19) - Distribution	AER	$millions								
Estimated revenues										
Distribution	DNSP	$millions								
DPPC	DNSP	$millions								
JSA	DNSP	$millions								

Input table 8 | Metering (Vic only)	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26
Metering x-factor	PTRM	Per cent								
Metering allowed smoothed revenue	PTRM	$millions								
Pass through amounts	AER	$millions								
WACC true-up	AER	$millions								
Total cost pass-throughs	Calculation	$millions								
Under/over-recovery adjustment (metering)	AER	$millions								
Unders/overs opening balance	AER	$millions								
Deliberate under-recoveries	DNSP	$millions								
Allowed revenues	AER	$millions								
Estimated revenues	DNSP	$millions								

2.3.3 Actuals

The actuals inputs worksheet requires data to be input that relates to the actual revenues and expenditures reported by the distributors, as well as some operational data reported. Operational data inputs are for information and external analysis only, and do not currently contribute to any other components of the model.

Actual revenues and expenditures are required to be accompanied by independent assurance. This requirement is considered as being met when revenue and expenditure reconcile with the RINs, for which assurance is provided.

Where a distributor identifies that actual revenue and/or expenditure differs to what has been reported in the RINs, the distributor will be required to input the correct data and resubmit the RINs with new independent assurance over the revised data (resubmission should occur prior to the pricing process to ensure appropriate validations can occur within the process). The independent assurance should meet the requirements of the RIN under which the original data was submitted.

Table 3 provides guidance on the data inputs on the actuals inputs worksheet.

Table 3 Actuals inputs

Input	Table	Cell	Who?	Notes
Actual revenues	9	J7:Q12	AER	Data sourced from Table 8.1.1.1 of AR RIN
Actual expenditure	10	J16:Q26	AER	Data sourced from Table 8.1.1.2 of AR RIN
Operational data units	11	E31:E52	AER	Units as per Tables 3.4.1.4, 3.4.1.1, 3.4.2.1 of EB RIN
Actual operational data	11	J31:Q51	AER	Data sourced from Tables 3.4.1.4, 3.4.1.1, 3.4.2.1 of EB RIN

2.3.4 Metering

The metering inputs worksheet requires data to be input that relates to the metering prices to apply to small customers for the purpose of cost movement analysis. For Victorian distributors, whose metering services are revenue-capped, it requires data to be input related to prices and quantities of metering services.

Table 4 provides guidance on the metering inputs on the metering inputs worksheet.

Table 4 Actuals inputs

Input	Table	Cell	Who?	Notes
Metering tariffs and units	12	C7:F36	AER	As per ACS model and determination Non-Victorian distributors only
Metering tariffs and units	13	C42:F48	AER	As per determination Victorian distributors only
Metering prices	12	K7:R36	AER/ distributor	AER to input historical data Proposed prices as per ACS model Non-Victorian distributors only Default as price caps
Metering proposed prices	13	K42:R48	AER/ distributor	AER to input historical data Victorian distributors only
Metering quantities	13	K51:R57	AER/ distributor	AER to input historical data as available Quantities forecasts to be replaced by estimates and actuals as known Victorian distributors only

2.3.5 Tariffs

The tariffs inputs worksheet requires data to be input that relates to the tariff classes, charging components, and tariffs for each distributor. Some of this data assists with converting to common units and identifying tariffs and charging components for treatment or inclusion in other components of the pricing model. This information will generally be sourced from the applicable TSS.

The tariffs throughout the pricing model are separated into two categories – tariffs and confidential tariffs. Tariffs listed in the confidential tariffs sections are generally those that apply to individual customers, or otherwise may allow data related to individual customers to be identifiable and are required to be redacted for public versions of the model. These have been segregated to allow for easy identification and redaction.

Controlled load and dedicated circuit tariffs, and any similar ‘secondary’ tariffs will be treated as individual line items for the purpose of this model. This allows more reflective and transparent analysis, particularly that for cost movements.

Block charging components (table 15) should be listed as ‘anytime’ consumption (column S). Block information for tariffs (table 16) should reflect the upper limit of consumption for each block, rather than the incremental consumption from the previous block (columns S and T). A block without an upper limit (i.e., the highest block) should be left blank (or as a 0 value).

For the avoidance of doubt, trial tariffs should not be included in the tariffs worksheet. Trial tariffs will be input only into the trial tariffs worksheet (see section 2.3.10).

Table 5 provides guidance on the data inputs on the tariffs inputs worksheet.

Table 5 Tariffs inputs

Input	Table	Cell	Who?	Notes
Tariff classes	14	C7:C17	AER	Tariff classes as identified in the TSS
Charging component	15	C21:C55	AER	Name of charging component as per TSS
Type of charge	15	D21:D55	AER	Select from drop-down menu To identify charge type and applicable treatments in certain components of model
Abbreviation	15	I21:I55	AER	Abbreviated name for use in tariff schedules and throughout model As per TSS where available
Charging units	15	J21:L55	AER	Select from drop-down menu
Other identifying info.	15	Q21:T55	AER	Select from drop-down menu
Tariff names	16,17	C59:C900	AER	Tariff name as identified in the TSS
Tariff class	16,17	D59:D900	AER	Select from drop-down menu
Other identifiers	16,17	E59:F900	AER	As per TSS or previous tariff schedule
Historical tariff	16,17	G59:G900	AER	Relevant tariff from previous regulatory control period (where applicable) Historical prices, quantities, etc., will source tariff names from here in relevant years
Other identifying info.	16,17	I59:N900	AER	Select from drop-down menu To identify tariff type and applicable treatments in certain components of model
Block information	16	O59:T147	AER	Information for block tariffs for cost movement analysis
Metering tariff	16	U59:U147	AER	Relevant (or typical) metering tariff for cost movement analysis

2.3.6 Quantities (Qty)

The quantities inputs worksheet requires data to be input that relates to the forecast, estimated, and actual quantities for each charging component for each tariff. Estimated quantities will be used to calculate estimated revenues where total estimated revenues are not provided. Actual quantities and customer numbers are used for cost movement and other analysis.

For the avoidance of doubt, estimated and actual quantities should be updated each year for the relevant years, and should not reflect the forecast quantities provided for that year in the relevant pricing proposal.

The forecast quantities are assessed for reasonableness, as required by the NER to approve a pricing proposal.[15]

15 NER cl. 6.18.8(a)(3).

Table 6 provides guidance on the data inputs on the quantities inputs worksheet.

Table 6 Quantities inputs

Input	Table	Cell	Who?	Notes
Forecast quantities	18,19	H8:AS96, H290:AS1038	Distributor	Forecast quantities for the upcoming period Supporting material (including methodology) to be provided
Estimated quantities	18,19	H101:AS189, H1043:AS171	Distributor	Estimated quantities for the current period Supporting material (including methodology) to be provided
Actual quantities	18,19	H194:AS282, H1796:AS2544	Distributor	Actual quantities for the previous period Supporting material (including methodology) to be provided where applicable

2.3.7 Proposed prices (Prop. Prices)

The proposed prices inputs worksheet requires data to be input that relates to the proposed prices for each charging component, revenue component, and tariff. Proposed prices are used to calculate revenues for the upcoming year.

Table 7 provides guidance on the data inputs on the proposed prices inputs worksheet.

Table 7 Proposed prices inputs

Input	Table	Cell	Who?	Notes
Proposed distribution prices	20,21	H8:AP96, H287:AP1035	Distributor	Proposed distribution prices for the upcoming period
Proposed DPPC prices	20,21	H100:AP188, H1039:AP1787	Distributor	Proposed DPPC prices for the upcoming period
Proposed JSA prices	20,21	H192:AP280, H1791:AP2539	Distributor	Proposed JSA prices for the upcoming period

2.3.8 Historical prices (Hist. prices)

The historical prices inputs worksheet requires data to be input that relates to the historical prices for each charging component, revenue component, and tariff for the current and previous years. These prices are as approved in previous pricing proposals. Historical prices are used to calculate revenues for the current year where total estimated revenues are not provided, and for performing cost movement and other analysis.

Table 8 provides guidance on the data inputs on the historical prices inputs worksheet.

Table 8 Historical prices inputs

Input	Table	Cell	Who?	Notes
Current distribution prices	22,24	H8:AP96, H566:AP1314	AER	Distribution prices for the current year
Current DPPC prices	22,24	H100:AP188, H1318:AP2066	AER	DPPC prices for the current year
Current JSA prices	22,24	H192:AP280, H2070:AP2818	AER	JSA prices for the current year
Previous distribution prices	23,25	H287:AP375, H2825:AP3573	AER	Distribution prices for the actual year
Previous DPPC prices	23,25	H379:AP467, H3577:AP4325	AER	DPPC prices for the actual year
Previous JSA prices	23,25	H471:AP559, H4329:AP5077	AER	JSA prices for the actual year

2.3.9 Indicative prices

The indicative prices inputs worksheet requires data to be input that relates to the indicative total network prices for each charging component, and tariff for the remaining years of the regulatory control period. Initially these indicative prices will be input as provided with the TSS. These prices shall be updated for the remaining years of the regulatory period in each pricing process, with the upcoming year and any preceding years to remain as previously input.

Indicative prices are a requirement under the NER, as are explanations for proposed prices that depart materially from previously indicated in the indicative price schedules.[16]

Table 9 provides guidance on the data inputs on the indicative prices inputs worksheet.

Table 9 Indicative prices inputs

Input	Table	Cell	Who?	Notes
Indicative prices	26,27	H8:AP4227	Distributor	Indicative prices for the remaining years of the regulatory period to be updated Upcoming year and preceding years to remain as previously input

2.3.10 Trial tariffs

The trial tariffs inputs worksheet requires data to be input that relates to any trial tariffs for the upcoming year, or historically. For the upcoming year, trial tariff revenues are to be input for compliance with the revenue cap mechanism and other requirements.

In the current and preceding years, price and quantity data is to be input to demonstrate compliance with trial tariff thresholds as per NER requirements.[17]

16 NER cll. 6.18.2(b)(7A) and 6.18.2(d),(e).

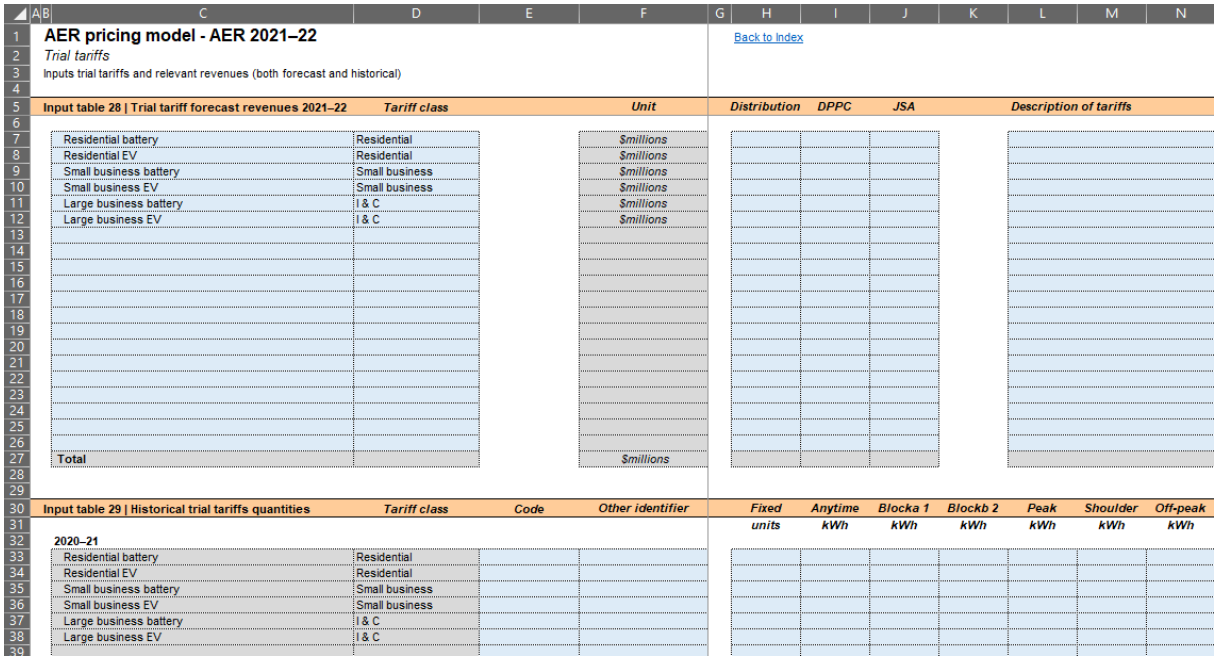
17 NER cl. 6.18.1C(a).

Table 10 provides guidance on the data inputs on the trial tariffs inputs worksheet. Figure 9 provides an example of the trial tariffs inputs worksheet.

Table 10 Trial tariffs inputs

Input	Table	Cell	Who?	Notes
Trial tariff names	28	C7:C26	Distributor	Trial tariff names (including historical)
Trial tariff class	28	D7:D26	Distributor	Select from drop-down menu
Forecast revenue	28	H7:J26	Distributor	Input forecast revenue for each distribution, DPPC, and JSA
Description of tariffs	28	L7:L26	Distributor	Description of trial tariffs
Other tariff identifiers	29	E33:F22	Distributor	Any other identifying information
Quantities estimates and actuals	29	H33:AP74	Distributor	Estimated and actual quantities for current and previous period respectively
Current and previous prices	30,31	H80:AP212	Distributor	Current and previous prices for each revenue and charging component
Historical revenue	32	H218:O283	Distributor	Historical revenue for preceding years

Figure 9 Trial tariffs inputs worksheet



2.3.11 Tariff costs

The tariff costs inputs worksheet requires data to be input that relates to the avoidable and standalone costs for each tariff class.

The avoidable and standalone costs form lower and upper bounds (respectively) for the expected revenues for each tariff class.[18]

18 NER cl. 6.18.5(e).

Table 11 provides guidance on the data inputs on the tariff costs inputs worksheet.

Table 11 Tariff costs inputs

Input	Table	Cell	Who?	Notes
Avoidable costs	33	L7:Q17	Distributor	Avoidable costs, with supporting calculations and/or model
Standalone costs	34	L21:Q31	Distributor	Standalone costs, with supporting calculations and/or model

2.4 Calculations

The calculations module provides the calculations that underlie the outputs worksheets. These include calculations of allowable, forecast, and estimated revenues, the amounts for the unders/overs accounts, and the cost movements analysis.

2.4.1 Total allowable revenue (TAR)

The TAR worksheet calculates the total allowable revenue for distribution, DPPC, JSA, and metering (for Victorian distributors only).

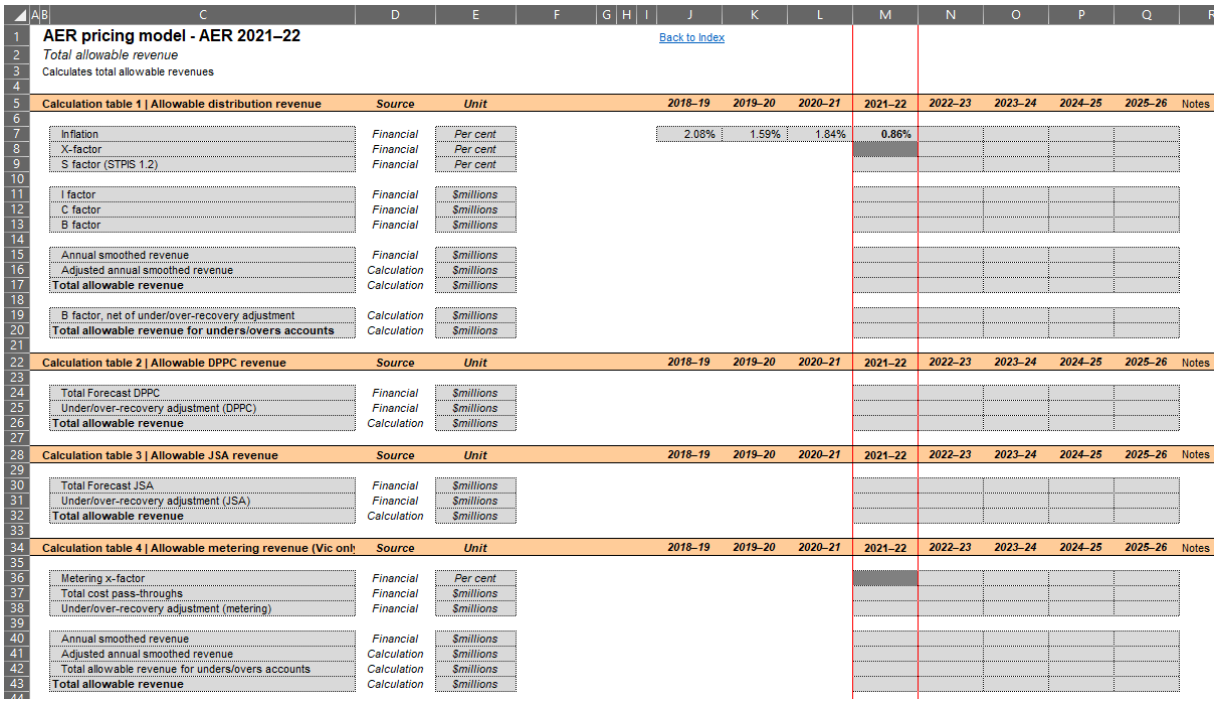
Total allowable revenue is calculated in line with the price control formulae as per our determinations for distribution and metering. This includes an unders/overs balancing adjustment that reflects the opening balance of the unders/overs account for the year, with a half-year WACC applied. This adjustment is calculated in the financials inputs worksheet.

For DPPC and JSA, total allowable revenue is calculated as the costs forecast to be incurred by the distributor, with a similar balancing adjustment as above for the relevant unders/overs account.[19] For the purpose of transparency, and for use in supplementary analysis, the calculation of these total allowable revenues will not change to reflect estimated or actual DPPC and JSA costs.

Figure 10 provides an example of the total allowable revenue worksheet.

[19] NER cll. 6.18.7(b) and 6.18.7A(b).

Figure 10 Total allowable revenue worksheet



1	**AER pricing model - AER 2021–22**						Back to Index									
2	*Total allowable revenue*															
3	Calculates total allowable revenues															
4																
5	**Calculation table 1 | Allowable distribution revenue**	***Source***	***Unit***				***2018–19***	***2019–20***	***2020–21***	***2021–22***	***2022–23***	***2023–24***	***2024–25***	***2025–26***	Notes
6																
7	Inflation	*Financial*	*Per cent*				2.08%	1.59%	1.84%	**0.86%**						
8	X-factor	*Financial*	*Per cent*													
9	S factor (STPIS 1.2)	*Financial*	*Per cent*													
10																
11	I factor	*Financial*	*$millions*													
12	C factor	*Financial*	*$millions*													
13	B factor	*Financial*	*$millions*													
14																
15	Annual smoothed revenue	*Financial*	*$millions*													
16	Adjusted annual smoothed revenue	*Calculation*	*$millions*													
17	**Total allowable revenue**	*Calculation*	*$millions*													
18																
19	B factor, net of under/over-recovery adjustment	*Calculation*	*$millions*													
20	**Total allowable revenue for unders/overs accounts**	*Calculation*	*$millions*													
21																
22	**Calculation table 2 | Allowable DPPC revenue**	***Source***	***Unit***				***2018–19***	***2019–20***	***2020–21***	***2021–22***	***2022–23***	***2023–24***	***2024–25***	***2025–26***	Notes
23																
24	Total Forecast DPPC	*Financial*	*$millions*													
25	Under/over-recovery adjustment (DPPC)	*Financial*	*$millions*													
26	**Total allowable revenue**	*Calculation*	*$millions*													
27																
28	**Calculation table 3 | Allowable JSA revenue**	***Source***	***Unit***				***2018–19***	***2019–20***	***2020–21***	***2021–22***	***2022–23***	***2023–24***	***2024–25***	***2025–26***	Notes
29																
30	Total Forecast JSA	*Financial*	*$millions*													
31	Under/over-recovery adjustment (JSA)	*Financial*	*$millions*													
32	**Total allowable revenue**	*Calculation*	*$millions*													
33																
34	**Calculation table 4 | Allowable metering revenue (Vic onl**	***Source***	***Unit***				***2018–19***	***2019–20***	***2020–21***	***2021–22***	***2022–23***	***2023–24***	***2024–25***	***2025–26***	Notes
35																
36	Metering x-factor	*Financial*	*Per cent*													
37	Total cost pass-throughs	*Financial*	*$millions*													
38	Under/over-recovery adjustment (metering)	*Financial*	*$millions*													
39																
40	Annual smoothed revenue	*Financial*	*$millions*													
41	Adjusted annual smoothed revenue	*Calculation*	*$millions*													
42	Total allowable revenue for unders/overs accounts	*Calculation*	*$millions*													
43	**Total allowable revenue**	*Calculation*	*$millions*													

2.4.2 Accounts

The accounts worksheet calculates the relevant data for use in the unders/overs accounts for each distribution, DPPC, JSA, and metering (for Victorian distributors only). For information only, a total unders/overs account is also provided.

An additional line item has been added to the unders/overs account (row 15 for distribution in calculation table 6) to reflect the unders/overs balancing adjustment made when the year was the forecast upcoming year (year=t). This line item has been added for transparency and supplementary analysis. It disaggregates the total under/over-recovery to provide both the intended balancing adjustment, as well as the further 'net' under/over-recoveries experienced. This effectively removes the under/over-recoveries from previous years applied through the balancing adjustment and ensures the final net under/over-recovery line reflects the under/over-recovery specific to that year.

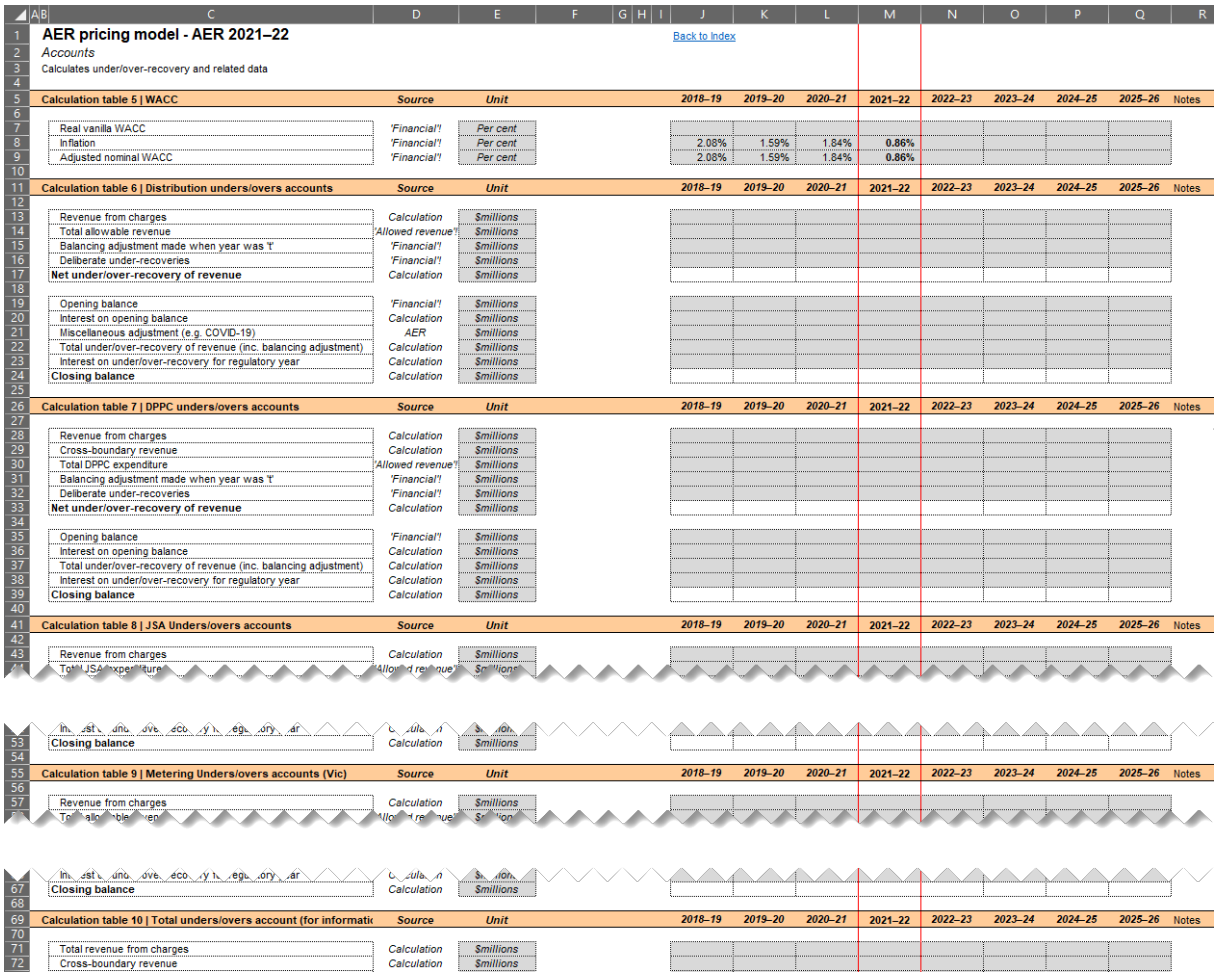
Total under/over-recoveries are applied to the unders/overs account (row 22 for distribution in calculation table 6) as the total of the balancing adjustment and the net under/over-recovery for a particular year. This maintains the same treatment as set in the applicable determinations.

Table 12 provides guidance on the calculations on the accounts worksheet. Figure 11 provides an example of the accounts worksheet.

Table 12 Accounts calculations

Calculation	Table	Cell	Notes
Revenue from charges	6,7,8,9	J13:Q13, J28:Q28, J43:Q43, J57:Q57	Revenue calculated as proposed prices x forecast quantities for the upcoming forecast year (year=t) Revenue sourced from input estimates where available, otherwise calculated from approved prices x estimated quantities for current year (year=t-1) Revenue sourced from actuals worksheet for previous year (year=t-2)
Cross-boundary revenue	7	J29:Q29	Cross-boundary revenue as forecast, estimated, or reported as actual in the RINs
Total allowable revenue	6,9	J14:Q14, J58:Q58	Total allowable revenue as calculated for use in the unders/overs account on the TAR worksheet For the avoidance of doubt, this total allowable revenue is net of the unders/overs balancing adjustment
Total DPPC/JSA expenditure	7,8	J30:Q30, J44:Q44	Total DPPC/JSA expenditure forecast, estimated (previous forecasts used where estimates not provided), or reported as actual in the RINs, that forms the total allowable revenue.
Balancing adjustment	6,7,8,9	J15:Q15, J31:Q31, J45:Q45, J59:Q59	Unders/overs balancing adjustment made in that year when it was the upcoming forecast year (when it was year=t)
Net under/over-recovery of revenue	6,7,8,9	J17:Q17, J33:Q33, J47:Q47, J61:Q61	Net under/over-recovery forecast/estimated/actually experienced in a particular year (should be 0, or close to 0, when year=t)
Total unders/overs account	10	J71:Q83	Sum of all unders/overs account Provided for information only

Figure 11 Accounts worksheet



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Accounts

Calculates under/over-recovery and related data

Calculation table 5 | WACC	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Real vanilla WACC	'Financial'!	Per cent									
Inflation	'Financial'!	Per cent	2.08%	1.59%	1.84%	0.86%					
Adjusted nominal WACC	'Financial'!	Per cent	2.08%	1.59%	1.84%	0.86%					

Calculation table 6 | Distribution unders/overs accounts	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Revenue from charges	Calculation	$millions									
Total allowable revenue	'Allowed revenue'!	$millions									
Balancing adjustment made when year was 't'	'Financial'!	$millions									
Deliberate under-recoveries	'Financial'!	$millions									
Net under/over-recovery of revenue	Calculation	$millions									
Opening balance	'Financial'!	$millions									
Interest on opening balance	Calculation	$millions									
Miscellaneous adjustment (e.g. COVID-19)	AER	$millions									
Total under/over-recovery of revenue (inc. balancing adjustment)	Calculation	$millions									
Interest on under/over-recovery for regulatory year	Calculation	$millions									
Closing balance	Calculation	$millions									

Calculation table 7 | DPPC unders/overs accounts	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Revenue from charges	Calculation	$millions									
Cross-boundary revenue	Calculation	$millions									
Total DPPC expenditure	'Allowed revenue'!	$millions									
Balancing adjustment made when year was 't'	'Financial'!	$millions									
Deliberate under-recoveries	'Financial'!	$millions									
Net under/over-recovery of revenue	Calculation	$millions									
Opening balance	'Financial'!	$millions									
Interest on opening balance	Calculation	$millions									
Total under/over-recovery of revenue (inc. balancing adjustment)	Calculation	$millions									
Interest on under/over-recovery for regulatory year	Calculation	$millions									
Closing balance	Calculation	$millions									

Calculation table 8 | JSA Unders/overs accounts	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Revenue from charges	Calculation	$millions									
Total JSA expenditure	'Allowed revenue'!	$millions									
Interest on opening balance	Calculation	$millions									
Total under/over-recovery of revenue (inc. balancing adjustment)	Calculation	$millions									
Interest on under/over-recovery for regulatory year	Calculation	$millions									
Closing balance	Calculation	$millions									

Calculation table 9 | Metering Unders/overs accounts (Vic)	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Revenue from charges	Calculation	$millions									
Total allowable revenue	'Allowed revenue'!	$millions									
Interest on opening balance	Calculation	$millions									
Total under/over-recovery of revenue (inc. balancing adjustment)	Calculation	$millions									
Interest on under/over-recovery for regulatory year	Calculation	$millions									
Closing balance	Calculation	$millions									

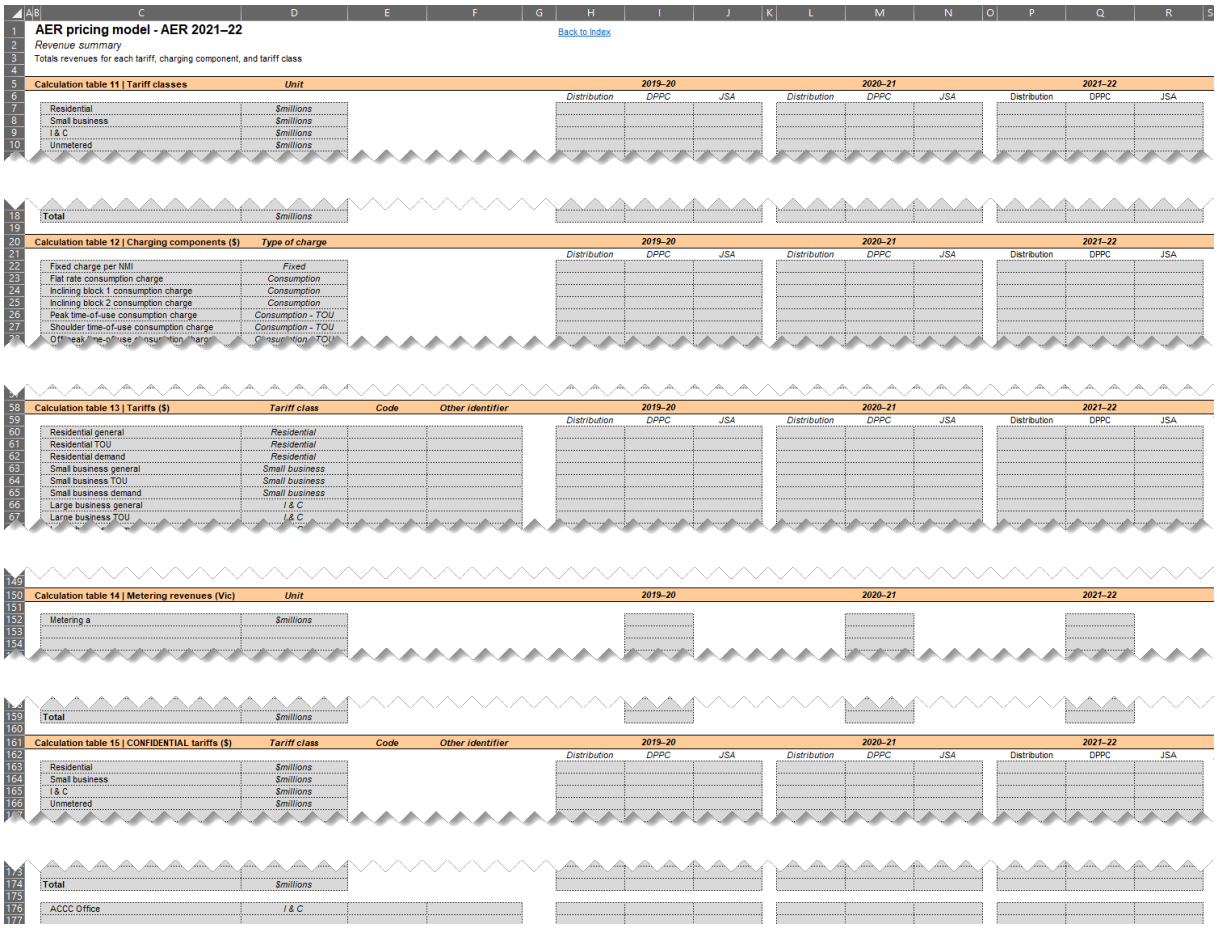
Calculation table 10 | Total unders/overs account (for informati	Source	Unit	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Total revenue from charges	Calculation	$millions									
Cross-boundary revenue	Calculation	$millions									

2.4.3 Revenue summary (Rev. summary)

The revenue summary worksheet provides summaries of all revenues for distribution, DPPC, and JSA components. This includes calculated revenue totals for the forecast upcoming year, the estimated current year, and the actual previous year, for tariff classes, charging components, and confidential tariffs. It also provides revenue summaries for Victorian metering services.

Figure 12 provides an example of the revenue summary worksheet.

Figure 12 Revenue summary worksheet



2.4.4 Proposed revenue (Prop. revenue)

The proposed revenue worksheet calculates the proposed revenue for each charging component of each tariff for the forecast upcoming year.

2.4.5 Historical revenue (Hist. revenue)

The historical revenue worksheet calculates the estimated and actual revenue for each charging component of each tariff for the current and previous years.

2.4.6 Side constraints revenue (SC revenue)

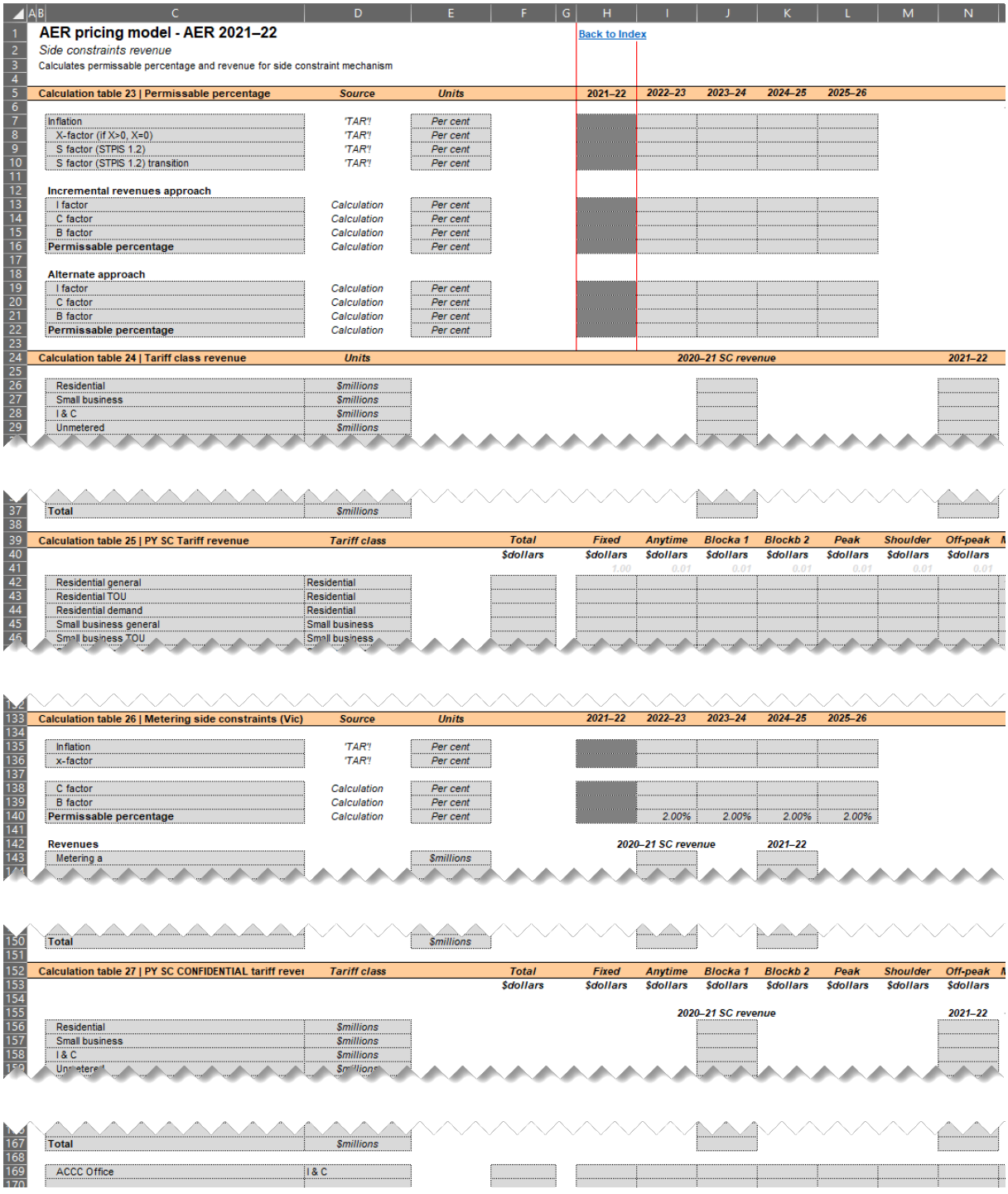
The side constraints revenue worksheet calculates the expected weighted average revenue for the current year using forecast quantities for the upcoming year as required for the side constraints mechanism. This worksheet also calculates the permissible percentages under two different approaches, applicable to different distributors.

The side constraints revenue worksheet also calculates these elements for metering services for Victorian distributors.

The approach applied to calculating side constraint revenues excludes trial tariff revenue to prevent unintended restrictions to trial tariff revenues. The approach, however, does not exclude new customers or new tariffs (as previously approved in the TSS). Where the introduction of a new customer or new tariff has a significant impact on a tariff class' revenue, the AER will consider the merit in disregarding this customer for the purpose of demonstrating compliance with the side constraints mechanism.

Figure 13 provides an example of the side constraints revenue worksheet.

Figure 13 Side constraint revenue worksheet



2.4.7 Total quantities (Total qty)

The total quantities worksheet calculates the total fixed units and consumption quantities of tariffs and tariff classes and categorises time-of-use and export consumption accordingly.

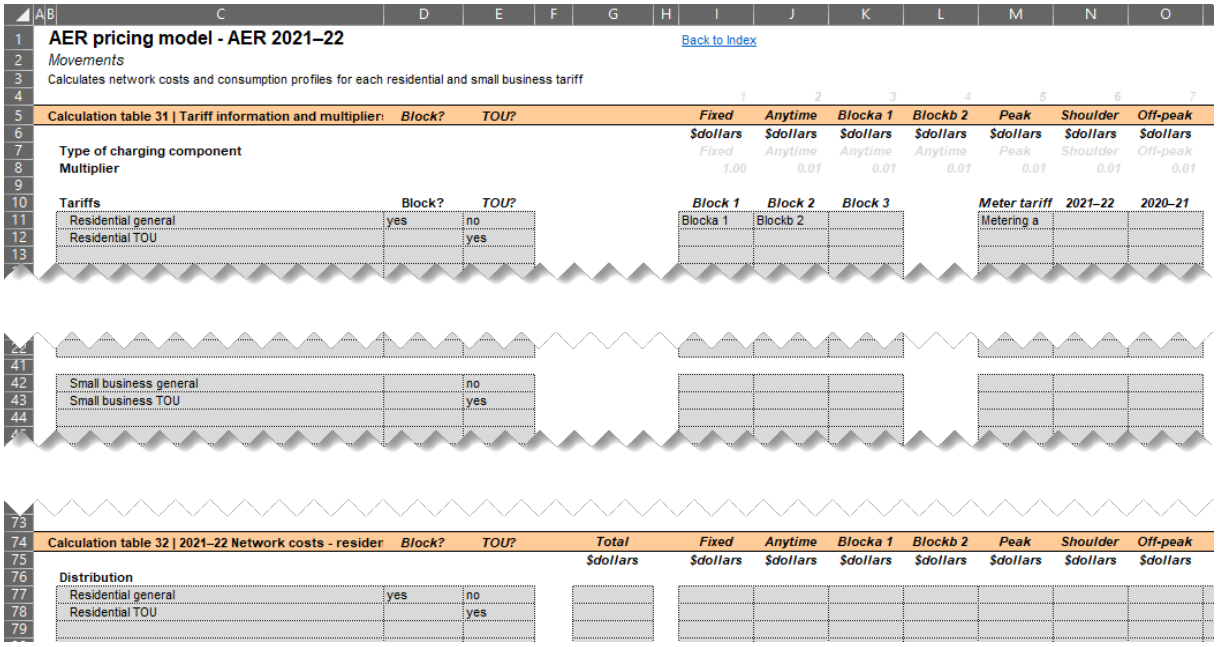
2.4.8 Movements

The movements worksheet calculates the average consumption profiles, current year network costs, and forecast upcoming year costs for residential and small business tariffs.

These cost movement calculations include the cost of metering that is typically associated with each tariff.

Figure 14 provides an example of the movements worksheet.

Figure 14 Movements worksheet

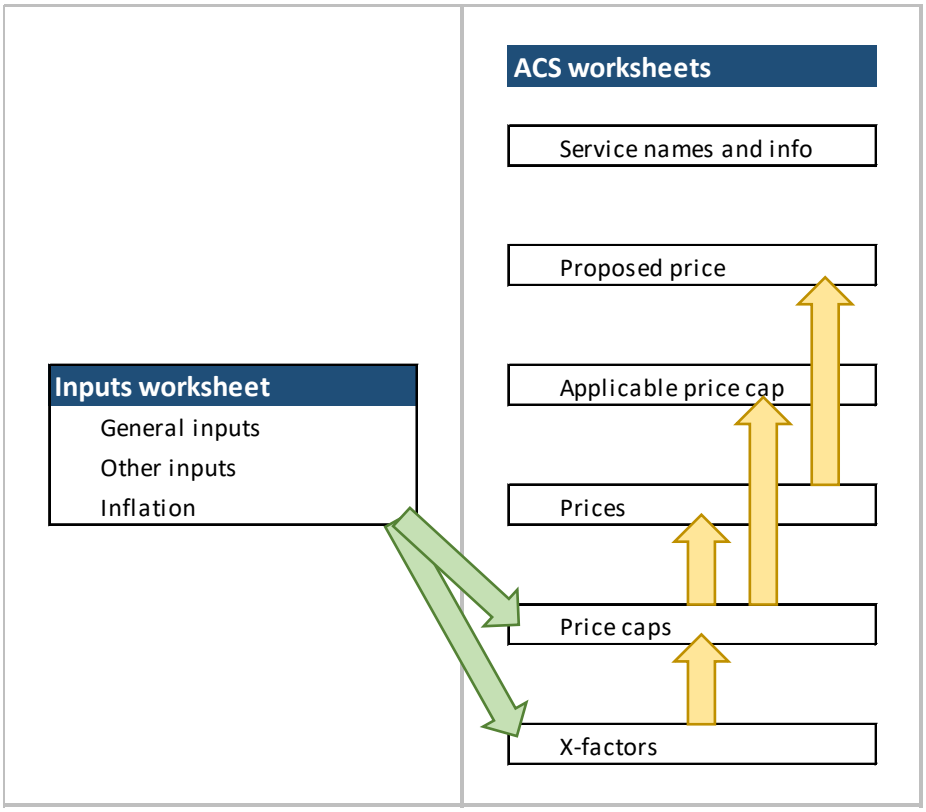


3 Price-capped ACS model

The price-capped ACS model includes inputs, calculations, and outputs that assist the distributor in demonstrating compliance, as well as assisting the AER in its analysis of a pricing proposal.

Figure 15 provides an overview of the ACS model.

Figure 15 Overview of ACS model



At the beginning of each distributor's regulatory control period, the AER will build a bespoke ACS model for the distributor, including general inputs, descriptors, and tariff information, as well as relevant historical information.[20] At this time, and prior to each annual pricing process, the AER will input relevant inputs for the upcoming pricing proposal.

Prior to submitting their pricing proposal each year, the distributor will verify the AER's inputs, and add inputs relating to proposed prices. The distributor will also engage with the AER regarding certain components of the ACS model, including any issues with the AER's provided inputs.

In the sections below, we have provided a summary of each worksheet. Any examples provided in the sections below reflect example data only, and do not reflect data of any particular business.

20 This will be completed prior to the 2022/23 pre-lodgement engagement process for each distributor for the first version of the ACS model.

We do not consider that there is a general requirement to identify confidential services in the ACS model. We therefore have not included functionality to redact confidential information in the ACS model. For any business that is required to redact information within the ACS model, this can be done on a manual basis.

The distributor should not alter the structure of the ACS model without prior discussion with the AER. This will ensure that any errors that arise are appropriately considered and actioned across all distributors' models, consistency is maintained, and the function of the ACS model is maintained[21].

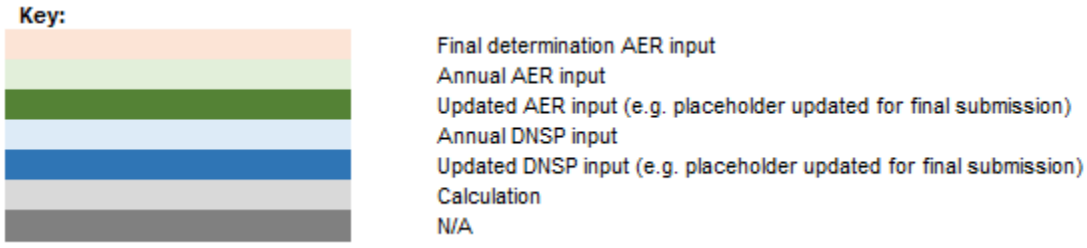
3.1 General

This model includes both a title page and a lookups page.

3.1.1 Title page ('Pricing model')

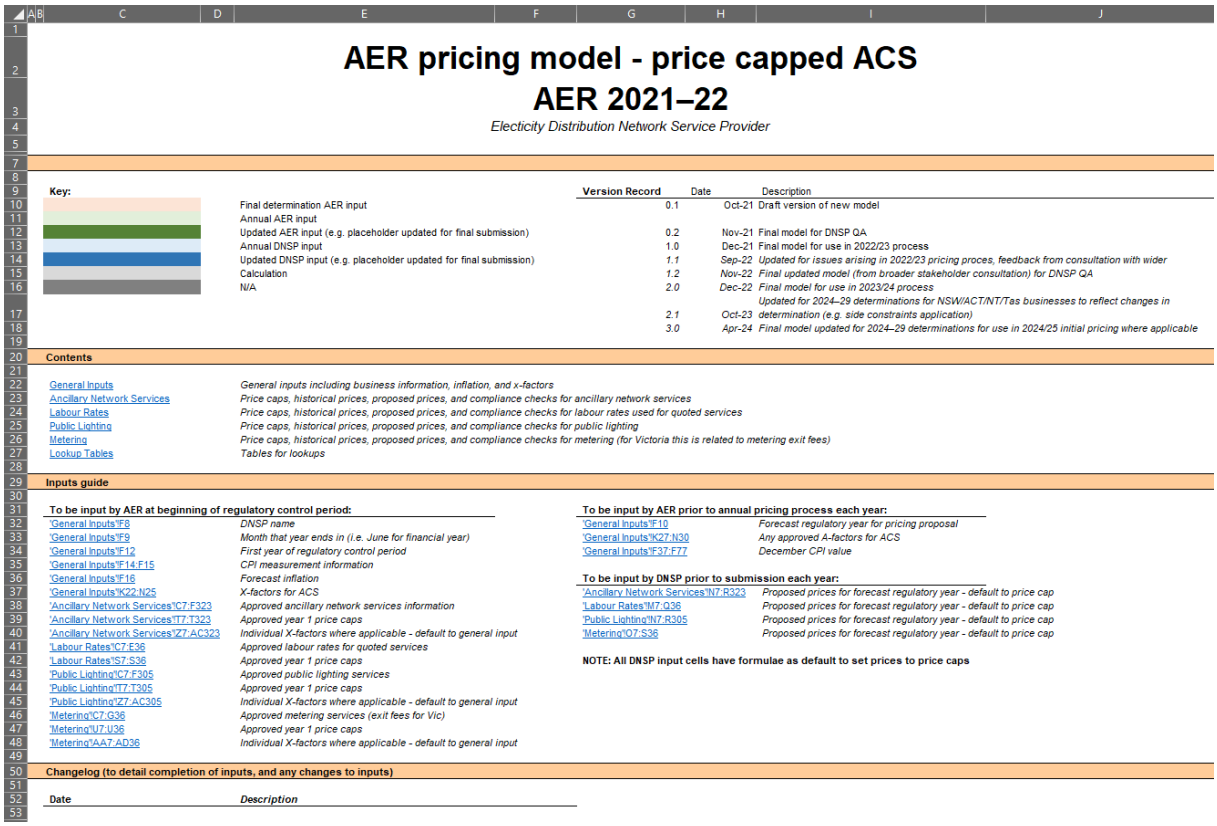
The title page includes an inputs key, version log, contents list, inputs guide, and change log. The change log is intended to be used to detail changes between models provided in pre-lodgement engagement and models provided in pricing proposal submissions. Figure 16 provides the inputs key, while Figure 17 provides an example of the title page worksheet.

Figure 16 Inputs key



[21] It is also expected that the AER will operate internal models that will rely on sourcing data from across all distributors' pricing models, which will rely on the consistency of the models.

Figure 17 Title page worksheet



AER pricing model - price capped ACS

AER 2021–22

Electricity Distribution Network Service Provider

Key:

	Final determination AER input
	Annual AER input
	Updated AER input (e.g. placeholder updated for final submission)
	Annual DNSP input
	Updated DNSP input (e.g. placeholder updated for final submission)
	Calculation
	N/A

Version Record	Date	Description
0.1	Oct-21	Draft version of new model
0.2	Nov-21	Final model for DNSP QA
1.0	Dec-21	Final model for use in 2022/23 process
1.1	*Sep-22*	*Updated for issues arising in 2022/23 pricing proces, feedback from consultation with wider*
1.2	*Nov-22*	*Final updated model (from broader stakeholder consultation) for DNSP QA*
2.0	*Dec-22*	*Final model for use in 2023/24 process*
		Updated for 2024–29 determinations for NSW/ACT/NT/Tas businesses to reflect changes in
2.1	*Oct-23*	*determination (e.g. side constraints application)*
3.0	*Apr-24*	*Final model updated for 2024–29 determinations for use in 2024/25 initial pricing where applicable*

Contents

General Inputs	*General inputs including business information, inflation, and x-factors*
Ancillary Network Services	*Price caps, historical prices, proposed prices, and compliance checks for ancillary network services*
Labour Rates	*Price caps, historical prices, proposed prices, and compliance checks for labour rates used for quoted services*
Public Lighting	*Price caps, historical prices, proposed prices, and compliance checks for public lighting*
Metering	*Price caps, historical prices, proposed prices, and compliance checks for metering (for Victoria this is related to metering exit fees)*
Lookup Tables	*Tables for lookups*

Inputs guide

To be input by AER at beginning of regulatory control period:

'General Inputs'!F8	*DNSP name*
'General Inputs'!F9	*Month that year ends in (i.e. June for financial year)*
'General Inputs'!F12	*First year of regulatory control period*
'General Inputs'!F14:F15	*CPI measurement information*
'General Inputs'!F16	*Forecast inflation*
'General Inputs'!K22:N25	*X-factors for ACS*
'Ancillary Network Services'!C7:F323	*Approved ancillary network services information*
'Ancillary Network Services'!T7:T323	*Approved year 1 price caps*
'Ancillary Network Services'!Z7:AC323	*Individual X-factors where applicable - default to general input*
'Labour Rates'!C7:E36	*Approved labour rates for quoted services*
'Labour Rates'!S7:S36	*Approved year 1 price caps*
'Public Lighting'!C7:F305	*Approved public lighting services*
'Public Lighting'!T7:T305	*Approved year 1 price caps*
'Public Lighting'!Z7:AC305	*Individual X-factors where applicable - default to general input*
'Metering'!C7:G36	*Approved metering services (exit fees for Vic)*
'Metering'!U7:U36	*Approved year 1 price caps*
'Metering'!AA7:AD36	*Individual X-factors where applicable - default to general input*

To be input by AER prior to annual pricing process each year:

'General Inputs'!F10	*Forecast regulatory year for pricing proposal*
'General Inputs'!K27:N30	*Any approved A-factors for ACS*
'General Inputs'!F37:F77	*December CPI value*

To be input by DNSP prior to submission each year:

'Ancillary Network Services'!N7:R323	*Proposed prices for forecast regulatory year - default to price cap*
'Labour Rates'!M7:Q36	*Proposed prices for forecast regulatory year - default to price cap*
'Public Lighting'!N7:R305	*Proposed prices for forecast regulatory year - default to price cap*
'Metering'!O7:S36	*Proposed prices for forecast regulatory year - default to price cap*

NOTE: All DNSP input cells have formulae as default to set prices to price caps

Changelog (to detail completion of inputs, and any changes to inputs)

Date	*Description*

3.1.2 Lookups

The lookups worksheet contains lookups for use throughout the model, including unit denominations, and month and year references. The lookups page is also used to differentiate between Victorian and non-Victorian distributors, particularly for historical years and inflation (Victorian distributors operated on calendar years historically).

3.2 General inputs

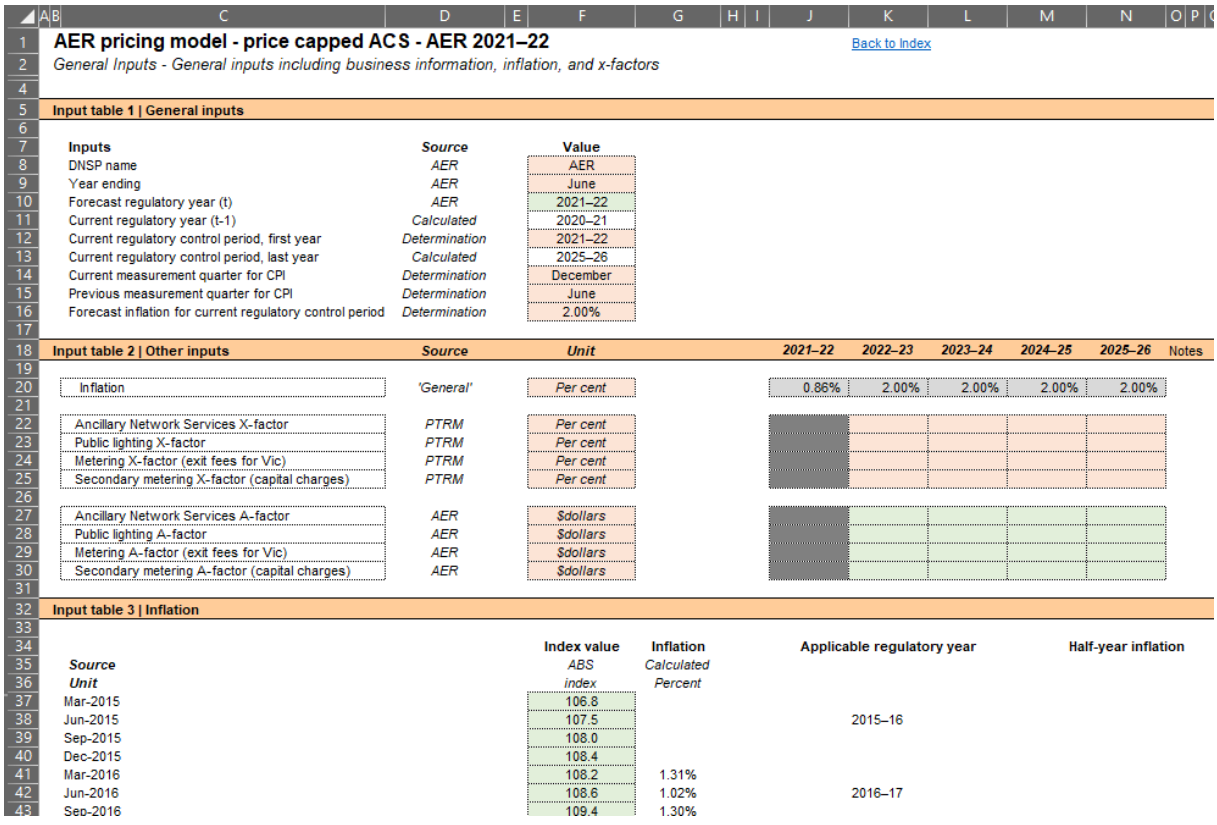
The general inputs worksheet requires general data to be input that relates to the distributor and that underly the individual service worksheets of the model.

Table 13 provides guidance on the data inputs on the general inputs worksheet. Figure 18 provides an example of the general inputs worksheet.

Table 13 General inputs

Input	Table	Cell	Who?	Notes
Distributor name	1	F8	AER	Select from drop-down menu
Year ending	1	F9	AER	Select from drop-down menu Should all be June to reflect financial year
Forecast regulatory year	1	F10	AER	Select from drop-down menu Reflects upcoming regulatory year (year t)
Current regulatory control period, 1st year	1	F12	AER	Select from drop-down menu
Current measurement quarter for CPI	1	F14	AER	Select from drop-down menu Should all be December
Previous measurement quarter for CPI	1	F15	AER	Select from drop-down menu Should be June for Victoria, Dec. for others
Forecast inflation	1	F16	AER	From SCS PTRM from determination
X-factors	2	K22:N25	AER	X-factors for each ACS as set in the determination (where common X-factors exist for all tariffs for a particular type of service)
A-factors	2	K27:N30	AER	Any applicable A-factor as determined in advance by the AER
CPI	2	F37:F77	AER	Latest actual consumer price index

Figure 18 General inputs worksheet



AER pricing model - price capped ACS - AER 2021–22

Back to Index

General Inputs - General inputs including business information, inflation, and x-factors

Input table 1 | General inputs

Inputs	Source	Value
DNSP name	AER	AER
Year ending	AER	June
Forecast regulatory year (t)	AER	2021–22
Current regulatory year (t-1)	Calculated	2020–21
Current regulatory control period, first year	Determination	2021–22
Current regulatory control period, last year	Calculated	2025–26
Current measurement quarter for CPI	Determination	December
Previous measurement quarter for CPI	Determination	June
Forecast inflation for current regulatory control period	Determination	2.00%

Input table 2 | Other inputs	Source	Unit	2021–22	2022–23	2023–24	2024–25	2025–26	Notes
Inflation	'General'	Per cent	0.86%	2.00%	2.00%	2.00%	2.00%	
Ancillary Network Services X-factor	PTRM	Per cent						
Public lighting X-factor	PTRM	Per cent						
Metering X-factor (exit fees for Vic)	PTRM	Per cent						
Secondary metering X-factor (capital charges)	PTRM	Per cent						
Ancillary Network Services A-factor	AER	$dollars						
Public lighting A-factor	AER	$dollars						
Metering A-factor (exit fees for Vic)	AER	$dollars						
Secondary metering A-factor (capital charges)	AER	$dollars						

Input table 3 | Inflation

Source / Unit	Index value ABS index	Inflation Calculated Percent	Applicable regulatory year	Half-year inflation
Mar-2015	106.8			
Jun-2015	107.5		2015–16	
Sep-2015	108.0			
Dec-2015	108.4			
Mar-2016	108.2	1.31%		
Jun-2016	108.6	1.02%	2016–17	
Sep-2016	109.4	1.30%		

3.3 Individual service worksheets

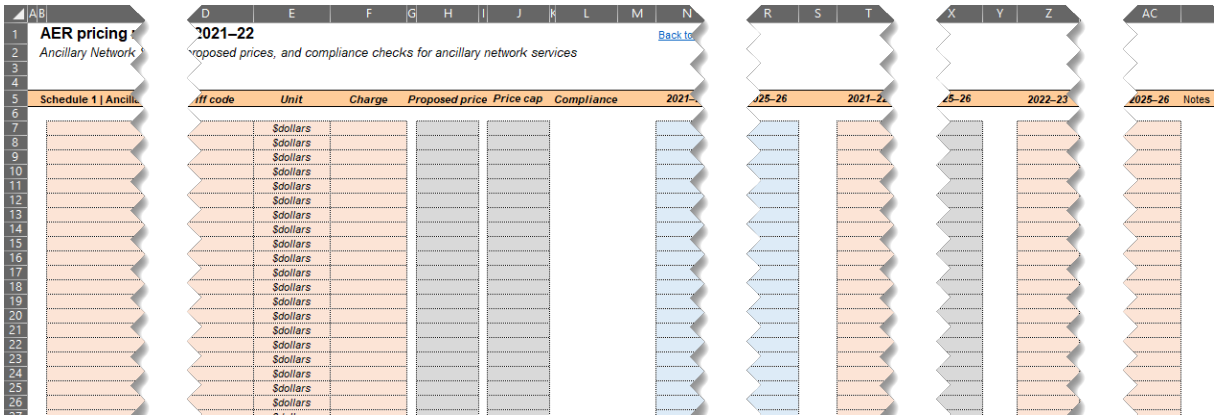
The individual service worksheets (ancillary network services, labour rates, public lighting, metering) provide all the applicable tariffs, the calculated price caps, applicable X-factors, and proposed prices.

Table 14 provides guidance on the data inputs and outputs on the individual services worksheets. Figure 19 provides an example of the individual services worksheets.

Table 14 Individual services

Input	Schedule	Cell	Who?	Notes
Tariff name	1,2,3,4	C7:C323, C7:C36, C7:C305, C7:C36	AER	Tariff name as per TSS or determination
Tariff code	1,2,3,4	D7:D323, D7:D36, D7:D305, E7:E36	AER	Tariff code as per TSS, determination, or previous schedule
Type of charge	1,3,4	F7:F323, F7:F305 D7:D36 & G7:G36	AER	Select from drop-down menu Reflect way charge is to be applied, and for metering differentiate between capital and non-capital charges
Proposed price and cap	1,2,3,4	H7:J323, G7:I36, H7:J305, I7:K36	N/A	Output of applicable proposed price and price cap for the upcoming year
Compliance	1,2,3,4	L7:L323, K7:K36, L7:L305, M7:M36	N/A	Identification of compliance of proposed prices against applicable price cap By default, should be compliant as proposed prices are equal to price caps
Proposed prices	1,2,3,4	N7:R323, M7:Q36, N7:R305, O7:S36	Distributor	Proposed prices for the upcoming year Proposed prices will default to the price cap – where a distributor wishes to propose a price that differs than the price cap, it should be hard-coded in these cells
Year 1 price cap	1,2,3,4	T7:T323, S7:S36, T7:T305, U7:U36	AER	Price cap applicable to year 1 as set in determination Subsequent year price caps are calculated from year 1
X-factors	1,3,4	Z7:AC323, Z7:AC305, AA7:AD36	AER	X-factors default to common input on general inputs worksheet Individual X-factors for tariffs can be hard-coded here

Figure 19 Individual services worksheet



Glossary

Term	Definition
ACS	Alternative control services – services that are identifiable to a single customer
AER	Australian Energy Regulator
Distribution	Relates to prices or revenue recovered by a distributor to cover the costs of delivering electricity and maintaining the network
DPPC	Designated pricing proposal charges – charges that a distributor incurs in relation to the transmission of electricity and passes through to customers
Indicative prices	Prices for the remaining years of a regulatory control period to reflect the intended price path for each tariff
JSA	Jurisdictional scheme amounts – charges that a distributor incurs in relation to jurisdictional schemes (generally relating to renewable energy schemes or feed-in tariff payments) and passes through to customers
NER	National Electricity Rules
Network price	The total network price, including distribution, DPPC, and JSA components
Permissible percentage	The percentage threshold allowed for movements in tariff class revenue under the side constraint mechanism
Price cap	A cap set for which prices cannot exceed – the current control mechanism applicable for alternative control services (with the exception of metering in Victoria)
Pricing process review	A review into the pricing process to find efficiencies and deliver more timely and accurate pricing proposals and approvals
Quantities	Relates to forecast, estimated, or actual consumption, demand, and customer/meter numbers that are used to bill customers
Regulatory control period	The period that a regulatory determination applies to (generally five years)
Regulatory determination	The AER's decision on how much revenue a distributor can recover, and other applicable requirements for a distributor across the regulatory control period
Revenue cap	A cap set for which revenues cannot exceed – the current control mechanism applicable for standard control services (and metering services in Victoria)
RIN	Regulatory information notices – used by distributors to report financial, operational, and other data to the AER
Side constraint	A mechanism that restricts the revenue movements for each tariff class to protect particular tariff classes from inequitable revenue recovery
Tariff class	The grouping of tariffs by a common identifier (generally type of customer)
Trial tariffs	Tariffs that allow trial of new ways of charging that are not prescribed in the applicable TSS – these are exempt from certain pricing rules (also known as sub-threshold tariffs)
TSS	Tariff structure statement – sets the tariffs, charging components, and other relevant tariff information to apply for the regulatory control period (is a part of the AER's regulatory determination)
Under/over-recovery	The variance between revenue actually recovered and that allowed for a particular year
Unders/overs account	A rolling account that 'trues-up' under/over-recoveries on a (usually) two-year lag
WACC	Weighted average cost of capital
Worksheet	A tab in an Excel workbook that houses data