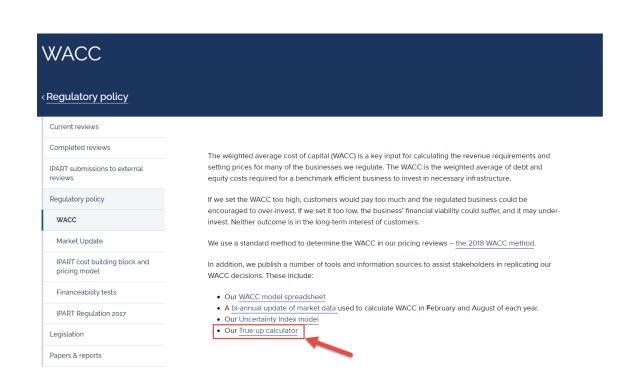September 2021

How does the model work?

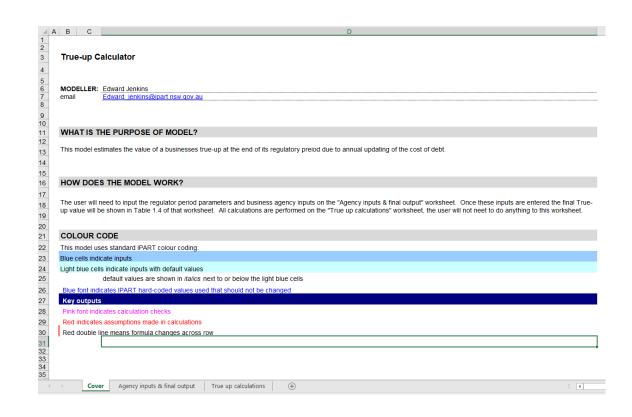A guide on how to use the True-up calculator

The Model

- The model can be found on our website in the regulatory policy – WACC section.

- These slides will show you what you'll need to put into the model.

The Model
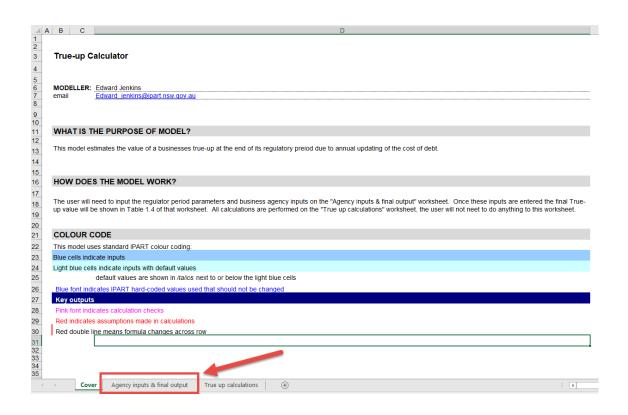
- The model follows the standard IPART model colour scheme

- Blue cells are the only cells that require input from the user

- The model comes with some default values put in as an example, but you will need to replace these with your correct agency values

The Model

- Everything that the user needs can be found on the Agency inputs & final output worksheet

Model inputs

DATA
INPUT

Determination details

- The first table contains all the non-financial details of the determination that you will need to input.

Determination details

- First you'll need to fill out the start date for your determination.

- This will set the dollar denomination of the model.

Determination details

- Then you'll need to set the regulatory period length.

- This is a free entry cell, however you will need to put in an integer between one and ten to get a meaningful result. The model is not equipped to deal with partial periods and only runs for 10-years.

Determination details

- Finally you will need to enter the post-tax real WACC that was set at the time of the determination.

Asset value inputs

- Once you've put in the determination details you'll then need to fill out the asset values for the agency over the determination into Table 1.2.

Table 1.2 - Asset inputs
Note: These values should be found in the return on RAB and return on working capital worksheets of the review building block model.

Year ending 30 Jun	Units	2020	2021	2022	2023	2024
			$2019-20	$2019-20	$2019-20	$2019-20	$
Asset values						
Opening RAB	$'000		95,000	95,000	95,000	95,000
capital expenditure	$'000		10,010	10,010	10,010	10,010
cash capital contributions	$'000		10	10	10	10
disposals	$'000		0	0	0	0
depreciation	$'000		10,000	10,000	10,000	10,000
indexation	$'000		0	0	0	0
Closing RAB	$'000		95,000	95,000	95,000	95,000
Value of Fixed RAB on which year end return is given			100,000	100,000	100,000	100,000 .
Other asset included in true-up	$'000					
Total asset values	$'000		100,000	100,000	100,000	100,000

Asset value inputs

- First you will need to put in the RAB values for the determination.

- These can be found in the return on RAB worksheet of the building block model, or in the RAB chapter of the review final report.

Table 1.2 - Asset inputs
Note: These values should be found in the return on RAB and return on working capital worksheets of the review building block model.

Year ending 30 Jun	Units	2020	2021	2022	2023	2024	$
			$2019-20	$2019-20	$2019-20	$2019-20	$
Asset values							
Opening RAB	$'000		95,000	95,000	95,000	95,000	
capital expenditure	$'000		10,010	10,010	10,010	10,010	
cash capital contributions	$'000		10	10	10	10	
disposals	$'000		0	0	0	0	
depreciation	$'000		10,000	10,000	10,000	10,000	
indexation	$'000		0	0	0	0	
Closing RAB	$'000		95,000	95,000	95,000	95,000	
Value of Fixed RAB on which year end return is given			100,000	100,000	100,000	100,000	.
Other asset included in true-up	$'000						
Total asset values	$'000		100,000	100,000	100,000	100,000	

Asset value inputs

- Then you will input any other assets included in the return on assets calculation that are not part of the formal RAB calculation.

Table 1.2 - Asset inputs

Note: These values should be found in the return on RAB and return on working capital worksheets of the review building block model.

Year ending 30 Jun	Units	2020	2021	2022	2023	2024
			$2019-20	$2019-20	$2019-20	$2019-20	$
Asset values						
Opening RAB	$'000		95,000	95,000	95,000	95,000
capital expenditure	$'000		10,010	10,010	10,010	10,010
cash capital contributions	$'000		10	10	10	10
disposals	$'000		0	0	0	0
depreciation	$'000		10,000	10,000	10,000	10,000
indexation	$'000		0	0	0	0
Closing RAB	$'000		95,000	95,000	95,000	95,000
Value of Fixed RAB on which year end return is given			100,000	100,000	100,000	100,000 .
Other asset included in true-up	$'000					
Total asset values	$'000		100,000	100,000	100,000	100,000

WACC inputs

- After you've filled out the asset values you will then need to put the WACC parameter inputs into Table 1.3.

Table 1.3 - WACC parameter inputs
Note: WACC parameters column G should be those that go into making the determined WACC for the review.

Year ending 30 Jun	Units	2021	2022	2023	2024	20
Current Data						
Nominal risk free rate	%	2.1%	2.0%	1.9%	1.8%	
Inflation	%	2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%	2.3%	2.2%	2.1%	2.0%	
MRP	%	8.8%				
Debt funding	%	60.0%				
Equity Funding	%	40.0%				
Gamma	#	0.25				
Corporate tax rate	%	30.0%				
Equity Beta	#	1.00				
Long Term averages						
Nominal risk free rate	%	3.2%	3.1%	3.0%	2.9%	
Inflation	%	2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%	2.7%	2.6%	2.5%	2.4%	
MRP	%	6.0%				
Debt funding	%	60.0%				
Equity Funding	%	40.0%				
Gamma	#	0.25				
Corporate tax rate	%	30.0%				
Equity Beta	#	1.00				

WACC inputs

- The first column of inputs is where the determined WACC parameters should go.

- These parameters are in the WACC appendix of the final report of each pricing review. These values do not update throughout the review.

- These will be used to set the baseline for the determined cost of debt and determination WACC.

Table 1.3 - WACC parameter inputs
Note: WACC parameters column G should be those that go into making the determined WACC for the review.

Year ending 30 Jun	Units	2021	2022	2023	2024	20
Current Data						
Nominal risk free rate	%	2.1%	2.0%	1.9%	1.8%	
Inflation	%	2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%	2.3%	2.2%	2.1%	2.0%	
MRP	%	8.8%				
Debt funding	%	60.0%				
Equity Funding	%	40.0%				
Gamma	#	0.25				
Corporate tax rate	%	30.0%				
Equity Beta	#	1.00				
Long Term averages						
Nominal risk free rate	%	3.2%	3.1%	3.0%	2.9%	
Inflation	%	2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%	2.7%	2.6%	2.5%	2.4%	
MRP	%	6.0%				
Debt funding	%	60.0%				
Equity Funding	%	40.0%				
Gamma	#	0.25				
Corporate tax rate	%	30.0%				
Equity Beta	#	1.00				

WACC inputs

The rows for the **actual** risk free rate and implied debt margin will need to be filled out with the actual values from throughout the determination.

The risk free rate and implied debt margin are the based on the trailing average for that year. These are not the values of the individual tranches. You will need to calculate the value of the trailing average in each year of the determination and input that here.

Table 1.3 - WACC parameter inputs
Note: WACC parameters column G should be those that go into making the determined WACC for the review.

Year ending 30 Jun	Units		2021	2022	2023	2024	20
Current Data							
Nominal risk free rate	%		2.1%	2.0%	1.9%	1.8%	
Inflation	%		2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%		2.3%	2.2%	2.1%	2.0%	
MRP	%		8.8%				
Debt funding	%		60.0%				
Equity Funding	%		40.0%				
Gamma	#		0.25				
Corporate tax rate	%		30.0%				
Equity Beta	#		1.00				
Long Term averages							
Nominal risk free rate	%		3.2%	3.1%	3.0%	2.9%	
Inflation	%		2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%		2.7%	2.6%	2.5%	2.4%	
MRP	%		6.0%				
Debt funding	%		60.0%				
Equity Funding	%		40.0%				
Gamma	#		0.25				
Corporate tax rate	%		30.0%				
Equity Beta	#		1.00				

WACC inputs

- The forecast inflation values are shown in the table, however we do not update the forecast inflation values for the true-up.

Table 1.3 - WACC parameter inputs
Note: WACC parameters column G should be those that go into making the determined WACC for the review.

Year ending 30 Jun	Units	2021	2022	2023	2024	20
Current Data						
Nominal risk free rate	%	2.1%	2.0%	1.9%	1.8%	
Inflation	%	2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%	2.3%	2.2%	2.1%	2.0%	
MRP	%	8.8%				
Debt funding	%	60.0%				
Equity Funding	%	40.0%				
Gamma	#	0.25				
Corporate tax rate	%	30.0%				
Equity Beta	#	1.00				
Long Term averages						
Nominal risk free rate	%	3.2%	3.1%	3.0%	2.9%	
Inflation	%	2.3%	2.3%	2.3%	2.3%	
Implied Debt Margin	%	2.7%	2.6%	2.5%	2.4%	
MRP	%	6.0%				
Debt funding	%	60.0%				
Equity Funding	%	40.0%				
Gamma	#	0.25				
Corporate tax rate	%	30.0%				
Equity Beta	#	1.00				

Final outputs

Finally, once you've put everything into Tables 1.1 to 1.3 then Table 1.4 will show the value of the true-up.

- The true-up will be given based on changes in the real cost of debt and nominal cost of debt (for agencies that are regulated under a nominal WACC).

- And Both estimates are in the dollar denomination of the determination.

Table 1.4 - Outputs
Note: This is the value of the regulatory true-up.

		$2019-20
Value of True-up (real)	$'000	-752.96
Value of True-up (nominal)	$'000	-781.02