

User Guide: NTESMO Expenditure Model

Summary

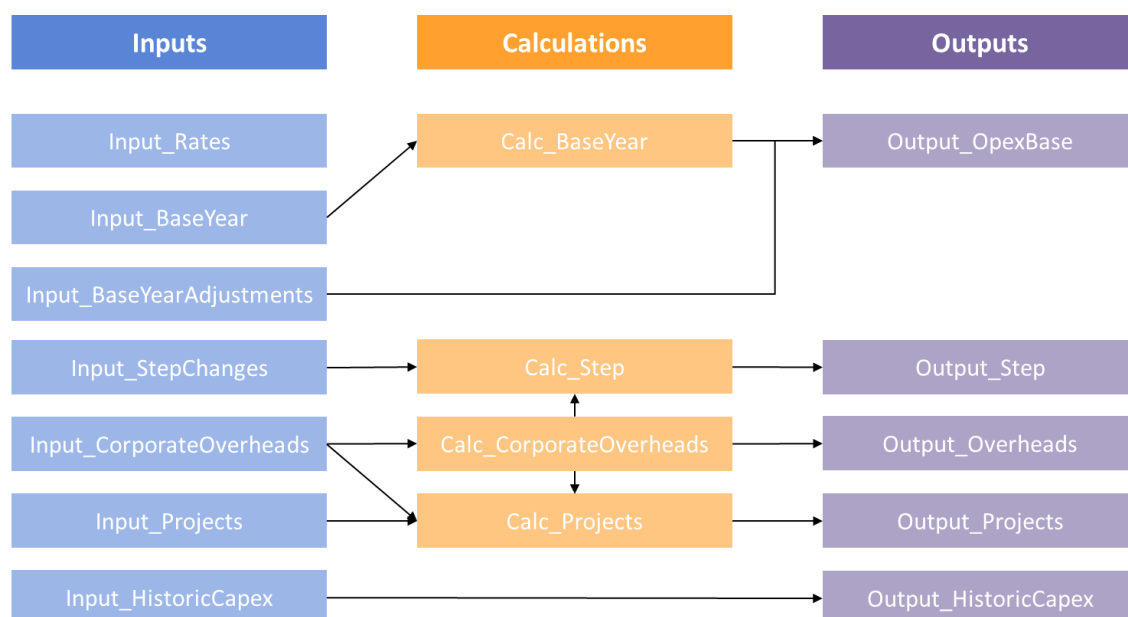
This document has been produced to explain the NTESMO Expenditure Model, the precursor model to the regulated revenue models. A separate document focuses on the operation of the regulated revenue models, NTESMO – Regulated Revenue Models – User Guide.

The purpose of the NTESMO Expenditure Model, an excel workbook, is to contain all data sources required to complete an NTESMO pricing proposal. These data sources are prepared within the workbook into formats suitable for output sheets, linked into the NTESMO – Regulated Revenue Models.

The inputs flow through the calculation sheets into the output sheets which are then linked, via cell referencing to the Regulated Revenue Models. This document aims to provide information and clarity to any person reviewing or updating the model, focusing on the input sheets.

General structure

Below is the internal flow of information within the model. Users should note that all cost inputs into the Input sheets are to be on a nominal, mid-period basis.



Adjustments for the FY2028-32 Pricing Proposal

Some small adjustments have been made to the general model structure to reflect the unique characteristics of the FY2028-32 pricing proposal.

- Key inputs were developed by Power and Water in real FY2025 terms rather than nominal. To accommodate this, new input sheets were added for StepChanges, CorporateOverheads and Projects. These sheets feed into the corresponding nominal input sheets.
- The model also includes a new calculation sheet to calculate the cost pass-through recovery profile for TEM Reform costs incurred in the FY2025-27 regulatory period. These outputs flow into the PRTM.

Input_Rates

This sheet contains the following uniform rates for the current and upcoming regulatory periods which are then linked throughout the Regulated Revenue Model suite:

- Actual inflation
- Expected inflation
- Price escalations (trend rates)
- Forecast productivity
- Cost of capital

Input_BaseYear

The base year data (most recent audited financial year) are obtained from TM1/FMS data “FYXX NTESMO by Entity” from the Finance Business Partner overseeing NTESMO, containing all expenditure for the year for System Control and Market Operator.

	31 - System Control Regulated 301	31 - System Control Regulated 311	31 - System Control Regulated 312	31 - System Control Regulated 991	31 - System Control Regulated TNT	32 - System Control Non Regulated 311	32 - System Control Non Regulated 321	33 - Market Operator - Regulated 302	33 - Market Operator - Regulated 312	33 - Market Operator - Regulated 991	34 - Market Operator - Non Regulated 302	34 - Market Operator - Non Regulated CEM	34 - Market Operator - Non Regulated 991
	Operations Planning	Real Time Operations	Power System Evolution	Management & Admin		Real Time Operations	Non Regulated - Other Services	Market Operations	Electricity Reform	Management & Administration	Market Operations	Emergency Management	Management & Administration
Other Revenue	\$0	-\$334,071	\$0	\$0	\$0	\$0	\$0	-\$1,273,018	\$0	\$0	\$0	\$0	\$0
Electricity Network	\$0	-\$6,728,144	\$0	\$0	\$0	\$0	\$0	-\$2,532,252	\$0	\$0	\$0	\$0	\$0
Alternative Control Services Revenue	\$0	\$0	\$0	\$0	\$0	\$0	\$0	-\$31,654	\$0	\$0	\$0	\$0	\$0
REVENUE	\$0	-\$7,062,215	\$0	\$0	\$0	\$0	\$0	-\$3,836,925	\$0	\$0	\$0	\$0	\$0
IT & Communications	\$0	-\$8,240	\$334,881	\$0	\$0	\$160,883	\$0	\$618,272	\$179	\$389	\$0	\$0	\$0
Vehicle Costs	-\$13,383	\$19,163	\$1,695	-\$6,693	\$0	\$385	\$0	\$564	-\$6,087	\$0	\$0	\$0	\$29,093
Travel Costs	\$10,195	\$2,501	\$45,077	\$0	\$0	\$25,385	\$3,070	\$0	\$200	\$0	\$0	\$124	\$0
Training Costs	\$2,777	\$10,661	\$8,600	\$0	\$0	\$10,855	\$0	\$0	\$600	\$0	\$0	\$0	\$0
Professional Fees	\$857,583	\$362,207	\$3,966,156	\$0	\$0	\$0	\$18,719	\$39,753	\$172,780	\$0	\$0	\$0	\$0
Insurance	\$0	-\$1,072	\$3,249	\$0	\$0	\$1,072	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Materials	\$0	\$5,271	\$5,808	\$0	\$0	\$5,452	\$0	\$0	\$0	\$0	\$0	\$0	\$0
External Service Agreements	\$766	\$23,352	\$0	\$64	\$0	-\$3,291	\$15,201	\$32	\$0	\$0	\$0	\$0	\$0
Property Charges	\$0	\$6,541	\$0	\$0	\$0	\$3,222	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Costs	\$22,721	\$30,126	\$13,887	\$7	\$0	\$31,183	\$1,690	\$4	\$3,832	\$0	\$0	\$0	\$175
Controllable Costs	\$880,660	\$450,510	\$4,379,353	-\$6,629	\$0	\$235,146	\$38,680	\$658,625	\$171,494	\$389	\$0	\$124	\$29,268
Personnel - Direct	\$2,809,189	\$2,405,499	\$1,311,898	\$405,165	\$44,218	\$6,731,967	\$0	\$835,530	\$970,212	\$774,931	\$0	\$7	\$0
Contract Labour	\$138,984	-\$73,710	\$0	\$0	\$0	\$73,710	\$0	\$0	\$71,015	\$0	\$0	\$0	\$51,669
Personnel Operational Recovery - CAPEX	-\$782,059	\$358,340	\$4,683	\$0	\$0	-\$420,854	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Personnel Costs	\$2,166,113	\$2,688,129	\$1,316,581	\$405,165	\$44,218	\$6,384,823	\$0	\$835,530	\$1,041,227	\$774,931	\$0	\$7	\$51,669
Total Controllable Costs	\$3,046,774	\$3,138,639	\$5,695,934	\$398,542	\$44,218	\$6,619,969	\$38,680	\$1,494,155	\$1,212,721	\$775,320	\$0	\$130	\$80,937
Business Services	\$0	-\$2,324,222	\$0	\$7,068,792	\$0	\$2,324,222	\$0	\$1,705,846	\$0	\$0	\$0	\$0	\$0
Transfer Pricing	\$0	-\$69,456	\$0	\$0	\$0	-\$34,204	-\$6	\$0	\$0	\$0	\$0	\$0	\$0
Service Level Agreements	\$1,133,885	\$0	\$0	\$0	\$0	-\$9,217,511	\$0	\$457,266	\$0	\$0	\$0	\$0	\$0
Inter Company Allocations	\$1,133,885	-\$2,393,679	\$0	\$7,068,792	\$0	-\$6,927,493	-\$6	\$2,163,112	\$0	\$0	\$0	\$0	\$0
Overhead Recovery	\$0	-\$66,874	-\$26,261	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OPERATING EXPENDITURE	\$4,180,658	\$678,086	\$5,669,673	\$7,467,334	\$44,218	-\$307,524	\$38,675	\$3,657,267	\$1,212,721	\$775,320	\$0	\$130	\$80,937
EBITDA	\$4,180,658	-\$6,384,130	\$5,669,673	\$7,467,334	\$44,218	-\$307,524	\$38,675	-\$179,658	\$1,212,721	\$775,320	\$0	\$130	\$80,937
Depreciation (Internal re-charge)	\$415,978	\$784,495	\$160,753	\$24,153	\$0	\$0	\$0	\$343,835	\$0	\$0	\$0	\$0	\$0
Amortisation - Leases	\$16,099	\$15,707	\$15,652	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
EBIT	\$4,612,736	-\$5,583,928	\$5,846,078	\$7,491,486	\$44,218	-\$307,524	\$38,675	\$164,177	\$1,212,721	\$775,320	\$0	\$130	\$80,937
Interest Expense	\$26,618	\$599,781	\$12,248	\$1,840	\$0	\$1,980,024	\$0	\$474,156	\$0	\$0	\$0	\$0	\$0
Interest - Finance Lease	\$2,476	\$1,326	\$1,313	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Profit Before Tax	\$4,641,829	-\$4,982,821	\$5,859,640	\$7,493,326	\$44,218	\$1,672,500	\$38,675	\$638,334	\$1,212,721	\$775,320	\$0	\$130	\$80,937
Tax expense/(benefit)	\$0	-\$3,005,488	\$0	\$0	\$0	-\$1,086,286	\$0	-\$730,394	\$0	\$0	\$0	\$0	-\$22,545
Net Profit/(Loss) After Tax	\$4,641,829	-\$7,988,309	\$5,859,640	\$7,493,326	\$44,218	\$586,215	\$38,675	-\$92,060	\$1,212,721	\$775,320	\$0	\$130	\$58,392
INCOME STATEMENT	\$4,641,829	-\$7,988,309	\$5,859,640	\$7,493,326	\$44,218	\$586,215	\$38,675	-\$92,060	\$1,212,721	\$775,320	\$0	\$130	\$58,392

These audited balances are organised into the standardised building blocks and entities required for the models. A set of further steps are then undertaken with expert finance advice to:

- Reallocate/ remove expenditure in the incorrect classification/entity or regulated/non-regulated sections.
- Reallocate personnel and corporate overhead expenditure from appropriate updated allocators.
- Remove non-regulated positions and the SLA charge proportionally.
- Proportionally redistribute management and administrative costs.

The fully adjusted base year values for System Control (3 regulated cost centres) and Market Operator (2 regulated cost centres) are broken into the four building blocks of Personnel, Professional Services, Residual and Corporate Overheads. The base year values contain operating expenditure only (i.e., capital expenditure is not included).

	31 - System Control Regulated	31 - System Control Regulated	31 - System Control Regulated	31 - System Control Regulated	32 - System Control Non Regulated	System Control		33 - Market Operator-Regulated	33 - Market Operator-Regulated	33 - Market Operator-Regulated	34 - Market Operator	Market Operator
	Operations Planning	Real Time Operations	Power System Evolution	Management & Admin	Non Regulated	Total		Market Operations	Electricity Reform	Management & Administratio	Non Regulated	Total
Personnel	\$1,923,574	\$3,614,832	\$1,033,216	\$0	\$3,333	\$6,574,955		\$3,648,788	\$647,717	\$0	\$3,333	\$4,299,838
Professional services	\$857,583	\$295,333	\$3,939,895	\$0	\$18,719	\$5,111,530		\$39,753	\$172,780	\$0	\$0	\$212,533
Residual	\$12,940	\$10,568	\$231,695	\$0	\$219,168	\$474,371		\$660,254	\$0	\$0	\$29,409	\$689,663
Corporate Overheads	\$1,077,533	\$2,024,929	\$578,779	\$0	\$1,867	\$3,683,108		\$2,043,950	\$362,833	\$0	\$1,867	\$2,408,650
	\$3,871,631	\$5,945,662	\$5,783,585	\$0	\$243,086	\$15,843,965		\$6,392,745	\$1,183,330	\$0	\$34,609	\$7,610,684

Input_BaseYearAdjustments

To finalise the base year values, this sheet allows for the input one-off or non-usual recurring expenditure / non-regulated expenditure to be removed, or for expenditure to be reallocated. Any cost removals must be input on a negative basis (i.e., removing \$100,000 must be input as -\$100,000). For cost reallocations, the category where the costs are being removed must also be input on a negative basis, but the cost category receiving the expenditure is to input as an absolute value.

This work is performed in conjunction with a finance expert of the area. It is structured by cost category for each sub-function to align with the structure of the fully adjusted base year in Input_BaseYear.

Base Year Adjustments							
Function	Sub-function	Category	Description	Unit	Basis	Timing	Adjustment
Market Operator	Market Operations	Personnel Costs	Capex personnel	\$	Nominal	Mid Period	
Market Operator	Market Operations	Personnel Costs	Back pay journal	\$	Nominal	Mid Period	
Market Operator	Market Operations	Personnel Costs	Adjustments for one-off expenditure	\$	Nominal	Mid Period	
Market Operator	Market Operations	Personnel Costs	Personnel activity re-allocation	\$	Nominal	Mid Period	

Input_StepChanges

Input_StepChanges aims to capture all future opex steps anticipated within the regulated period. The data is sourced from business cases and SCI forecasts. Each row is reviewed and defined as per the regulatory framework in conjunction with NTESMO.

There are two versions of the StepChanges input sheet, one which applies nominal inputs and the other which applies real inputs. Any inputs added to the real sheet will be converted to nominal in the nominal input sheet. The model suite accepts inputs in nominal terms.

Please note: The user must ensure that the correct function, sub-function, and cost category is selected from the drop-down lists for each step change. This will impact the allocation and treatment of expenditure during the calculation of the revenue requirements for both functions.

Input - Individual Step Changes												
Step Change Name	Step Change Descriptor	Function	Sub-Function	Category	Unique ID	Unit	Basis	Timing	FY28	FY29	FY30	FY31
Real time system services	System Maintenance	System Control	Real time Operations	Residual Costs	Real time Operations - Residual Costs	\$	Nominal	Mid-Period	\$1,640,240	\$1,683,707	\$1,727,764	\$1,772,398
Real time system services	System Maintenance	Market Operator	Market Operations	Residual Costs	Market Operations - Residual Costs	\$	Nominal	Mid-Period	\$118,702	\$121,847	\$125,036	\$128,266
												\$131,515

Input_CorporateOverheads

Input_CorporateOverheads requires inputs for two areas of expenditure – corporate overheads and corporate capex.

Corporate overheads

For corporate overheads, the user needs to input the following components from the relevant CAM SCI forecast on an annual basis across the upcoming regulatory period:

- Total corporate overheads
- Percentage allocations to each business unit
- Proportion of allocated Core Operations costs eligible for capitalisation

- Percentage allocations to each function within the Core Operations business unit
- NTESMO's allocation of FTEs by sub-function

Forecast corporate overheads across the upcoming regulatory period are then calculated in Calc_CorporateOverheads.

Total Corporate Overheads	Unit	Basis	Timing	Function	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Power and Water	\$	Nominal	Mid-Period	N/A							
Allocation to Business Units	Unit	Basis	Timing	Function	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Power	%	N/A	N/A	N/A	46%	46%	46%	47%	46%	46%	46%
Water & Sewerage	%	N/A	N/A	N/A	26%	27%	27%	27%	27%	27%	27%
Gas	%	N/A	N/A	N/A	4%	4%	4%	4%	5%	5%	5%
Core Operations	%	N/A	N/A	N/A	24%	22%	22%	22%	22%	22%	22%
Minor Centres	%	N/A	N/A	N/A	0%	0%	0%	0%	0%	0%	0%
					TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Proportion of allocated costs eligible for capitalisation	Unit	Basis	Timing	Function	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Core Operations	%	N/A	N/A	N/A	29%	33%	33%	36%	34%	34%	34%
Core Operations Allocator	Unit	Basis	Timing	Function	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Management and Administration	FTE %	N/A	N/A	N/A	1%	1%	1%	1%	1%	1%	1%
311 - Real Time Operations	FTE %	N/A	N/A	System Control	14%	14%	14%	14%	14%	14%	14%
312 - Market System Transition	FTE %	N/A	N/A	System Control	4%	4%	4%	4%	4%	4%	4%
991 - Management and Administration	FTE %	N/A	N/A	System Control	0%	0%	0%	0%	0%	0%	0%
301 - Operations Planning	FTE %	N/A	N/A	System Control	8%	8%	8%	8%	8%	8%	8%
302 - Market Operations	FTE %	N/A	N/A	Market Operator	5%	5%	5%	5%	5%	5%	5%
MTR - Metering	FTE %	N/A	N/A	N/A	11%	11%	11%	11%	11%	11%	11%
MTR - Metering	FTE %	N/A	N/A	N/A	0%	0%	0%	0%	0%	0%	0%
SCC - SCADA and Comms	FTE %	N/A	N/A	N/A	18%	18%	18%	18%	18%	18%	18%
SAM - Strategic Asset Management	FTE %	N/A	N/A	N/A	2%	2%	2%	2%	2%	2%	2%
CEM - Security and Emergency Management	FTE %	N/A	N/A	N/A	1%	1%	1%	1%	1%	1%	1%
CWM - Core Works Management	FTE %	N/A	N/A	N/A	17%	17%	17%	17%	17%	17%	17%
PDM - Project Delivery Management	FTE %	N/A	N/A	N/A	11%	11%	11%	11%	11%	11%	11%
STO - Stores and Inventory	FTE %	N/A	N/A	N/A	5%	5%	5%	5%	5%	5%	5%
PRI - Performance Reporting	FTE %	N/A	N/A	N/A	3%	3%	3%	3%	3%	3%	3%
Total					100%	100%	100%	100%	100%	100%	100%
					TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE

Corporate overheads – alternative approach

For the FY2028-32 pricing proposal, an alternative approach to the corporate overheads has been deployed. This reflects applying a base-step-trend approach to corporate overheads.¹ Under this approach, the actual corporate overheads reported as a part of the audited financials for FY2025 are used as a starting point for implementing the base-step-trend method. As a result, the corporate overheads sourced from the CAM forecast sheet in the Input sheet are set to nil and this part of the sheet becomes redundant.

As only the corporate capex part of the sheet remains in use, the Input_CorporateOverheads sheet has been renamed to Input_CorporateCapex. The Calc_CorporateOverheads and Output_CorporateOverheads sheets are also no longer used and marked as redundant (Re).²

Corporate capex

Corporate capex costs are corporate capex costs, such as vehicle leases and IT systems, that contribute to NTESMOs functioning. The entire Power and Water forecasted expenditure is taken from SCI values and utilises the Corporate Allocation Method to proportionally allocate costs to the different business units. This occurs within the FYXX-XX

¹ The purpose of this change has been to better reflect expected corporate overhead costs for NTESMO as it becomes a separate entity from Power and Water.

² Retaining the relevant sheets enables the original corporate overheads approach to be used in future. If NETSMO returns to CAM-based allocation in future, this can be achieved by removing corporate overheads from the base year and allocating them via CAM, as outlined above.

NTESMO NN Capex Forecast workbook. The resulting SC and MO allocations by asset class are directly input into the Input_CorporateOverheads sheet.

Asset Class	Unit	Basis	Timing	Function	FY26	FY27	FY28	FY29	FY30	FY31	FY32
Plant_and_Equipment	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Property	\$	Nominal	Mid-Period	System Control	\$215,011	\$449,970	\$1,451,083	\$1,485,843	\$362,882	\$30,945	\$0
Property_leases	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fleet_leases	\$	Nominal	Mid-Period	System Control	\$57,534	\$48,884	\$60,267	\$59,637	\$54,065	\$48,575	\$0
Motor_vehicles	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0
IT_and_Communications	\$	Nominal	Mid-Period	System Control	\$1,274,830	\$728,167	\$418,874	\$238,664	\$187,060	\$278,792	\$0
Non_network_others	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Building	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0
in-house software	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Equity raising costs	\$	Nominal	Mid-Period	System Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Input_Projects

This sheet is for the input of capital projects forecast for the upcoming regulatory period and the associated cost estimate. The sheet is structured for the input of five capital projects, but this can be extended if required. This does not include any capex related to corporate functions, this is input in the Input_CorporateOverheads (now the Input_CorporateCapex) sheet.

For each capital project, the user must input the name of the project. There is then the option to input the individual components of the project (if any), including the component name, number, and the source of the project information (e.g., the business case). The user also must select the function the project is assigned to and then input the forecast expenditure across the upcoming regulatory period.

There are two versions of the Projects input sheet, one which applies nominal inputs and the other which applies real inputs. Any inputs added to the real sheet will be converted to nominal in the nominal input sheet. The model suite accepts inputs in nominal terms.

Please note: The user must select the correct function from the drop-down list, as this will impact the roll forward of the RAB, as well as the calculation of the return of and on capital.

Project Name	Project Component #	Project Component Name	Source	Unit	Basis	Timing	Function
[Project Name x]	[Project Component #]	[Project Component Name]	[Business Case]	\$	Nominal	Mid Period	
[Project Name x]	[Project Component #]	[Project Component Name]	[Business Case]	\$	Nominal	Mid Period	0
[Project Name x]	[Project Component #]	[Project Component Name]	[Business Case]	\$	Nominal	Mid Period	0
[Project Name x]	[Project Component #]	[Project Component Name]	[Business Case]	\$	Nominal	Mid Period	0
[Project Name x]	[Project Component #]	[Project Component Name]	[Business Case]	\$	Nominal	Mid Period	0
[Project Name x]					Nominal	Mid Period	0

Output_Projects

The capital projects and associated forecast expenditure inserted into Input_Projects, as well as the corporate capex input into Input_CorporateOverheads, will flow through into this output sheet. Here the user must select whether corporate overheads apply and the RAB asset class allocation for each row.

Please note: The user must ensure that the correct asset class is assigned to each item, as this will impact the asset life applied to each item in the RAB.

Overhead Allocation		RAB Asset Class Allocation												
Network Overheads Applies	Corporate Overheads Applies	IT and Communications	Plant and Equipment	Land and Easements	Property	Buildings	Property Leases	Fleet Leases	Under Recovery	Buildings - capital works	In-house software	[Spare 1]	[Spare 2]	[Spare 3]
N/A	No	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
N/A	No	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	-
N/A	No	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.0%
N/A	No	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.0%
N/A	No	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100.0%

Input_HistoricCapex

This sheet captures historic capex for the current regulatory period to be used to roll forward the Regulatory Asset Base to the start of the upcoming regulatory period. The costs should be input on an actual basis where available, and align with the forecasts within the Commission's Final Decision for the relevant regulatory period where not.

Please note: The user must ensure that the correct asset class and function are selected from the drop-down lists for each item. This will impact the asset life applied to each item in the RAB, as well as the allocation and roll forward of the RAB.

Description	Asset Class	Unit	Basis	Timing	Function	FY24	FY25	FY26	FY27
						Actual	Actual	Forecast	Forecast
Territory Dispatch Engine	IT and Communications	\$	Nominal	Mid Period	System Control		\$1,051,560	\$20,678,000	\$13,943,000
Transitional Tools	IT and Communications	\$	Nominal	Mid Period	System Control	\$602,598	\$143,633	\$1,191,242	\$0

Calc_Cost_pass_through

For the FY2028-32 pricing proposal, a cost pass-through claim was included. The output of this sheet is used in the PTRM to show the pass-through recovery adjustment required.

This sheet calculates costs that must be recovered in the FY2028-32 regulatory period by comparing the revenue summary of the PTRM for FY2025-27 regulatory period with and without the pass-through costs included.

Cost recovery is then smoothed over the FY2028-32 regulatory period by ensuring the NPV of the unsmoothed revenue impact from the FY2025-27 period is equal to that of the proposed cost recovery adjustment in the FY2028-32 period. This can be done using the GoalSeek function to derive the smoothed recovery for each year (reported as real 2027 to align with the PTRM).