

Revised Final Plan  
Attachment 9.10

# Asset Restructure Model and Roll Forward Instructions

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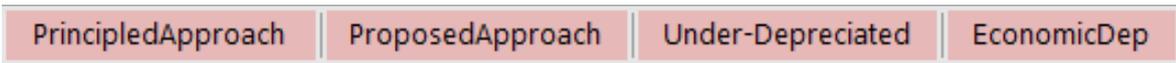
October 2020

# Asset Restructure Model and Roll Forward Instructions

In its draft decision, the ERA changed our approach to depreciation in respect of how existing assets are treated. We have subsequently made changes to the ERA’s approach. This appendix acts as an instruction manual to explain how to operate the tariff model now that these changes to depreciation have been made. Section 1.3 covers the operation of the following tabs in the tariff model:

- ProposedApproach
- PrincipledApproach
- Under-Depreciated
- EconomicDep

These are pictured below.



Section 1.3 must be read in conjunction with these tabs in the tariff model. Section 1.3 explains how roll forward each of these tabs in AA6 and how it works.

Sections 1.1 and 1.2 relate to a completely different model (asset restructure model) see the introduction of these sections for more details. These must also be read in conjunction with that model.

Using the asset restructure model for making revisions to AA4 capex on a project basis (as described in Section 1.1), outputs asset splits for AA4 which can be used to allocate AA4 depreciation. It also outputs a summary of capex by new category for input into the tariff model.

An example of how to move an asset out of a category is included in Section 1.1.

Section 1.2 illustrates how we have moved large generators and scrubbers from ‘Other Depreciable’ to ‘Compression’ in 2010 and 2011. This is an isolated adjustment that does not relate to Section 1.1.

## 1.1. How to make adjustments to proposed AA4 capex to output proportions for splitting AA4 depreciation

These instructions relate to the asset restructure model submitted as part of our revised final plan.

Open the tab ‘AA4 ProjectCategorySplit’ pictured below. The values associated with each project can be altered across each of the 5 years in the tab according to the ERA’s AA4 capex review.



For example (fictional), if the ERA decided not to approve \$10 million of Meter station valve overhauls in 2016 the value in orange in the image below would be set to zero. Similarly, the values in the orange cell can be increased or decreased as desired.

Project Name	2016 Act \$ (Nom)
Meter Station Valves and Control valves overhauls	10

At the end of the project list there is a summary of:

- what dollar values came from the original categories and where these dollar values were distributed across new categories; and
- proportions showing what proportion of capex came from which of the original categories and where these proportions were distributed across new categories.

The example given above will flow through to these proportions and summary automatically. An example of the split output for 2016 is shown below.

Proportion from	Computers & Moi CP	SCADA, ECI & Comms	
Pipeline	0.00%	60.15%	39.85%
Compression	3.91%	2.43%	55.44%
Metering	0.00%	0.09%	0.00%
Other	46.32%	0.00%	19.37%

An example of the assets by new category are shown below:

Pipeline	-
Compression	2.382
Metering	3.270
Other	2.239
Computers & Motor Vehicles	3.266
CP	0.826
SCADA, ECI & Comms	5.163
	17.145

The proportions are copied from this sheet into each relevant year in the 'Asset\_Splits' tab in the tariff model. This ensures the correct amount of historical depreciation is allocated to the original and new categories.

This process will not need to be repeated after AA4 because depreciation in AA5 is already in the new format and hence, no need to split.

## 1.2. How large generators and scrubbers have been moved from 'Other Depreciable' to 'Compression'.

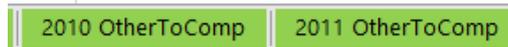
The changes to move large generators and scrubbers from other depreciable to compression in 2010 and 2011 have been made in the 'Inputs' tab (pictured below) of the tariff model submitted as part of our revised final plan. These are highlighted in yellow within that tab.

### Inputs

For Other Depreciable and Compression Capex in 2010 and 2011 the following items are reclassified through the adjustment highlighted in yellow in the inputs tab.

- Capex
- The ERA's 'capex adjustment' (an extraordinary item occurring in 2010)
- Depreciation
- Redundant/Disposed assets.

The workings for these adjustments are located in the Asset Restructure Model '2010 OthertoComp' and '2011 OthertoComp' tab. The tabs are pictured below:



Accordingly, the asset split proportions for 2010 and 2011 had to be revised. These are shown in the Asset Restructure Model '2010 RAB (New proportions)' and '2011 RAB (New proportions)'. The tabs are pictured below:



These new proportions have been transposed into the 'Asset\_Splits' tab of the *tariff model* submitted as part of our revised final plan. An example of the splits for 2010 are pictured below.

Proportion from	Computers and Motor Vehicles	Cathodic/Corrosion Protection	SCADA, ECI (Electrical, Control & Instrumentation) and Communications
Pipeline	0.00%	2.83%	0.00%
Compression	0.00%	0.00%	1.84%
Metering	0.00%	0.00%	1.67%
Other	0.00%	0.00%	95.07%

### 1.3. How to Roll Forward the Asset Base in AA6 using Revised Final Plan Tariff Model and calculate AA6 depreciation

These instructions relate to the tariff model submitted as part of our revised final plan.

They cover the operation of the following tabs in the tariff model:

- ProposedApproach
- PrincipledApproach
- Under-Depreciated
- EconomicDep

These are pictured below.



These are relevant to calculating AA5 depreciation.

The tabs:

- Asset\_Splits
- RegDepPipeline
- RegDepCompression
- RegDepMetering
- RegDepOther
- Asset\_NoReclass

Are modified version of those in the ERA's Draft Decision model and are picture below.



These have been modified to reinstate the application of asset splits:

1. to the asset base across 2005 to 2015; and
2. to AA4 depreciation.

These tabs are relevant to establishing the asset base close in 2020/open 2021. ***They are irrelevant to any capex after 2020.***

As per standard ERA practice, any AA5 calculated depreciation becomes a hardcoded input into the subsequent AA model (ERA modelling staff are familiar with this practice).

For example, if our proposed approach was accepted, AA5 depreciation in the 'ProposedApproach' tab in our model would be cut and paste as value into the AA6 model.

### ***The Principled Approach***

The 'PrincipledApproach' tab would be extended 5 years forward into AA6.

1. AA4 approved capex as an output from above
2. AA5 capex would be updated with approved capex as per usual practice
3. Approved hardcoded depreciation from AA5 is input.
4. Input capex forecast for AA6
5. Extended year by year tracking (annual capex accounts) downward in the sheet as per usual practice.

How does it work?

- AA5 approved depreciation will reduce approved actual capex across AA5 to roll forward to 2026 open.
- The depreciation algorithms in the 'PrincipledApproach' automatically write-off outstanding assets balances with zero life at AA6 open. This amount is added to the first year of the depreciation building block.
- Depreciation on remaining under-depreciated asset balances or 'under-depreciation' are part of the depreciation in the 'PrincipledApproach' worksheet. This is the theoretically correct approach in terms of economic life, but this 'under-depreciation' is removed in the 'ProposedApproach' worksheet as per our proposal to defer it to subsequent AAs when asset life is zero.
- Under-depreciation is calculated in the 'Under-Depreciated' tab

### ***Under-depreciated Assets***

The 'Under-Depreciated' tab is extended 5 years across AA6. Closing values for AA5 in this sheet should all be based on the opening values the 'PrincipledApproach'.

How does it work?

- The opening algorithms will return zero values for out-of-service/written-off assets to ensure these amounts are excluded from 'under-depreciation' amounts being calculated in this sheet.
- It then calculates the difference between the opening RAB for AA6 (based on AA5 close) and opening RAB in the 'EconomicDep' worksheet. The 'EconomicDep' worksheet rolls forward the asset base as if all new categories and revised asset lives were applied from the 2005.
- This difference represents outstanding depreciation on assets still in service that needs to be depreciated out (in theory putting postponement aside) over the remaining life.

### ***Economic Depreciation***

The 'EconomicDep' worksheet is extended forward 5 years into AA6.

1. Approved forecast capex is left as it was in AA5 as this is consistent with approved depreciation.
2. Input AA6 forecast capex

How does it work?

- This will roll forward the RAB and calculate depreciation for AA6 as if the new categories and correct lives were applied from the start.
- This only exists as a reference point to establish under-depreciation on assets still in service which is postponed over the AA.

### ***Proposed Approach***

The proposed approach deducts under-depreciation calculated in the 'Under-depreciated' worksheet from the depreciation in the 'Principled Approach' worksheet (only for the relevant capex years in question). This gives relevant depreciation for AA6.

How does it work?

- Deducting under-depreciation on assets still in service from the principled approach leaves only economic depreciation and written-off amounts on assets found to be out of service at the start of the AA (ie zero economic life)
- Principled Approach = Under-Depreciated + Economic Depreciation + Out of Service Asset Write-Off Values
- Which implies Principled Approach – Under-depreciated = Economic Depreciation + Out of Service Asset Write-Off Values
- Under-depreciation is not deducted from asset balances and so is postponed, however the asset life for these assets in question keeps counting down uninterrupted.
- In each subsequent AA some of the post-postponed under-depreciation is written off in the first year when the asset lives are zero at AA open.
- After three Access Arrangements of 'write-offs' the balance of under-depreciation will reach zero.
- Since the correct Economic lives (full and remaining) are used from AA5 open, the only depreciation left will be the correct economic depreciation based on correct asset life.
- At this point the 'Principled Approach' has converged to economic depreciation using correct lives.
- The 'Under-depreciated' and 'EconomicDep' sheet become redundant because balances in the former will be zero and the later will replicate the principled approach for future AAs.