

Revised Final Plan
Attachment 9.8

Incenta Report for AGIG: Asset reclassification for the DBNGP

October 2020

Asset reclassification for the DBNGP

Report for AGIG

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1. Introduction and summary of conclusions

1.1 Our task

1. We (Incenta Economic Consulting, Incenta or us) have been asked by AGIG, the owners of the Dampier to Bunbury Natural Gas Pipeline (DBNGP) to comment on a certain aspect of the Economic Regulatory Authority's draft decision in relation to this pipeline. The particular issue upon which we have been asked to advise is AGIG's proposal to introduce additional classes of assets for depreciation purposes, and to reclassify existing assets that were installed between 2005 and 2020 into those new asset classes.¹

1.2 Summary of conclusions

1.2.1 The issue

2. AGIG's proposed introducing three new asset classes for regulatory depreciation purposes to cater for secondary and other shorter-lived assets that had previously been included in classes with relatively long economic lives. It also proposed that assets installed in the past² that would fit within the new categories would have their remaining lives adjusted to be consistent with those new categories.
3. The ERA accepted a number of aspects of AGIG's proposal, including the new asset classes proposed, the economic lives for those classes,³ and the proposition that the relevant existing assets that would fit within the new categories should have their lives adjusted. However, there was a difference in view as to how the opening capital base values for the new asset classes should be determined.
 - a. AGIG's proposal had the effect of calculating the capital base value for the new asset classes by applying the depreciation that had been calculated for those assets – and factored into reference tariffs – in past periods. The written down values calculated in this manner would then have new (adjusted) lives applied from the start of the next access arrangement period.⁴
 - b. The ERA, in contrast, calculated the opening capital base values for the new asset classes by applying the new (correct) asset lives back to the time when the asset was

¹ DBP also proposed changes to the lives for two existing classes ("other" and "metering", the last of which the ERA has accepted) and we are aware that it has now proposed shifting some assets from the "other" class to "compressors" as a response to some of the ERA's reservations. These additional issues are beyond the scope of this report.

² We use the term "existing assets" to refer to capital expenditure spanning the period until the end of the current access arrangement period, although technically part of the current period capital expenditure is a forecast.

³ Note that the economic life for an asset classes reflect the expected economic life for a new asset in that class, with the life for a specific asset then reduced to account for that asset's time in service.

⁴ DBP's proposal was also to reset the lives for the existing assets according to the life of new assets, which we referred to in our earlier advice as a form of transitional arrangement (Incenta (2019), Review of DBP's proposed reclassification of assets for regulatory depreciation purposes: report for DBP, December, p.6). We address transitional arrangements further below.

first installed.⁵ The new (correct) life would then continue to apply to this capital base value on a forward-looking basis.

- i. Applying a shorter life for these assets would generate more regulatory depreciation than had been applied to reference tariffs in the past.
- ii. The ERA proposed making this recalculated past depreciation match the historical totals by adjusting downwards the depreciation attributable to the assets that remain in the original asset classes.

1.2.2 Our advice

4. In our view, the ERA's method of dealing with past depreciation is not consistent with the requirements of the National Gas Rules.
 - a. The rules envisage that assets (or classes of assets) would have their remaining lives adjusted over time to better align them with their economic lives,⁶ which has substantial merit from the perspective of economic principles.
 - b. However, those rules do not require, or even appear to authorise, a change to past depreciation for assets whose life is not to be adjusted,⁷ which is an outcome of the ERA's method.
 - i. To be clear, the ERA's proposed method for keeping the total of past depreciation intact is to change the depreciation for the assets that are to remain in the original classes. As there is no reason to question the correctness of the lives for the assets that will remain in the original classes – and so no reason to question the past depreciation for those assets – this will introduce an error into the past depreciation for those assets. This would appear contrary to Rules 89(1)(b) and (c).
 - ii. Moreover, it is only possible for the ERA to apply the new life for assets retrospectively and adjust the capital base values for a set of remaining assets (i.e., to preserve historical total depreciation) because this particular situation involves the adjustment of lives for a small number of assets that were within a large class. If the life for all assets within a class were to be adjusted – or if every asset was being depreciated individually – then there would be no “remaining assets” whose value could be changed to keep historical totals unchanged, and so there would be no option but to apply the new life only on a forward-looking basis. The fact that the ERA's method is only practicable in

⁵ An exception was for capital expenditure undertaken between in the last access arrangement period (2016 to 2020), where no depreciation was applied.

⁶ Rules 89(1)(b) and (c).

⁷ In the body of the report, we describe the alternative set of facts that would have justified the ERA method, namely where a range of assets with differing remaining lives are aggregated into a class, and where depreciation is calculated by applying the weighted remaining life for the class. However, we conclude that this has not been the case for the DBNGP, and so this line of argument does not provide a justification for ERA's proposed approach.

the unique context of this case suggests the ERA's proposed method of applying Rule 89(1)(c) is not what the rules envisage.

- c. Our reading of the rules is simply that the remaining lives for assets should be reviewed and adjusted from time to time as necessary to maintain consistency with their remaining economic life, with the adjustments to lives applied on a forward-looking basis.
 - i. Whilst depreciation in the past has been calculated for asset classes – and AGIG's proposals have been framed in this context – the past depreciation can be traced back directly to the individual assets that comprise the current classes.
 - ii. Rules 89(1)(b) and (c) encourages adjustments to the lives of individual assets where (amongst other things) manifestly incorrect lives clearly have been applied in the past.
5. However, reducing the economic lives for assets on a forward-looking basis means that a “catch-up” in depreciation is required – i.e., as the capital base currently in existence will be higher than if the assets had always been depreciated over the shorter lives, and so future depreciation will therefore be higher.⁸ Accordingly, some form of transition in relation to this “catch up” may be required in order to ensure that the time path of reference tariffs “promotes the efficient growth in the market for reference services”.⁹
6. To this end, we observe that the ERA's proposal is equivalent to a transitional arrangement that spreads out this “catch up” over the remaining life of the assets in the original classes, which in our view would be an unreasonably long transition. Deriving the appropriate transition requires judgement, exercised against the requirements for Rule 89(1)(a).
7. We note that AGIG's revised proposal is a transition whereby the “catch up” asset value would not be depreciated over time, but rather just written-off in stages at the commencement of each access arrangement period to the extent that the underlying assets had passed the end of their economic lives.
8. We observe that this is a simple transition arrangement that results in the “catch up” being spread over the next few access arrangement periods and so ameliorates the effect on prices, and would appear to address the concerns centred around Rule 89(1)(a). In contrast, the transition that is implicit in the ERA method is much more than could be justified to meet Rule 89(1)(a).

⁸ That is, if an asset with a cost of 100 is depreciated over a 20 year life, then it will have a written down value after five years of 75. If the life for a new asset is now shorted to 10 years (implying a remaining life for the asset in question of 5 years) the annual depreciation will be 15. However, if the same asset had always been depreciated over 10 years the annual depreciation will be 10.

⁹ Rule 89(1)(a).

2. Elaboration

2.1 The issue

2.1.1 AGIG's proposal

9. As noted above, as part of its proposed access arrangement revisions, AGIG undertook a review of the classes of assets that are applied for regulatory depreciation calculations.¹⁰ In previous access arrangement periods, AGIG applied only a limited number of asset classes when calculating regulatory depreciation, with standard asset lives ranging from 30 to 70 years. An outcome of the limited number of classes is that the secondary assets – such as corrosion protection equipment and electrical and communications equipment – were included in the classes of the associated long-lived assets (i.e., pipelines, compressors and metering equipment), and hence have been depreciated over inappropriately long lives. Similarly, there was no category of assets for very short lived assets – like vehicles and IT – and so these too were depreciated over inappropriately long lives (typically being assigned to the other category, which had a 30 year life).
10. AGIG's proposal was to introduce three additional classes of assets. As well as being applied on a forward-looking basis, AGIG reviewed its past capital expenditure, identified assets that would have been classified into these new classes, and proposed that the remaining life for the assets in question be adjusted to a life that is relevant to the new class. To be clear, the effect of AGIG's proposal was that:
 - a. the capital base value of the relevant assets at the start of the next access arrangement period would be calculated by applying the depreciation that had been applied to those assets in past periods, and
 - b. from the commencement of the new access arrangement period, the remaining life would be revised to the life applying to the new asset class.
11. One complication was that AGIG's proposal was not simply to adjust the remaining lives of existing assets that were transferred to the new classes to be consistent with the standard lives for those classes,¹¹ but instead it proposed to apply the life of a new asset to those existing assets. We interpret this "life reset" as a form of transitional arrangement, which I discuss further below.

2.1.2 The ERA's views on AGIG's proposal

12. The ERA's draft decision was to accept a number of the elements of AGIG's proposal as discussed earlier. In particular, the ERA has proposed accepting:

¹⁰ We undertook a review of aspects of DBP's proposal – see Incenta (2019), Review of DBP's proposed reclassification of assets for regulatory depreciation purposes: report for DBP, December.

¹¹ That is, calculating the remaining life of an existing asset as the standard life for assets in the new class, less the age of the asset.

- a. the creation of the new asset classes and the associated asset lives that AGIG proposed, and
 - b. the proposal that existing assets that would fit within those new classes should also have their lives revised.
13. The ERA has also accepted an implicit aspect of the DPB's proposal, which is that the reclassification of existing assets should not change the total RAB that is recovered in the future, but rather such a review should just change the distribution of the remaining lives of the assets in the RAB.
14. A difference of view exists, however, as to how the capital base value of the existing assets whose life is to be adjusted should be determined.
 - a. As discussed above, AGIG's proposal was that the assets should be depreciated over the period to date according to the depreciation that actually applied in the past,¹² with the capital base value calculated in this manner at the commencement of the next access arrangement period then depreciated according to the lives applicable to the new class.
 - b. The ERA's draft decision, in contrast, was to calculate the capital base values for the assets whose life is to be adjusted by applying the proposed new asset lives to calculate depreciation over the period to date (i.e., applying the new asset lives retrospectively). The exception to this was for the assets installed during the current regulatory period, where no depreciation was proposed to be applied.
 - i. Applying the new, shorter lives when calculating past depreciation results in more depreciation being attributed to the assets whose life is to be adjusted than had been calculated in past periods. Absent a correction, this would lead to total past depreciation across all assets exceeding the amount that had been factored into reference tariffs in past periods.
 - ii. The ERA has proposed keeping the total of past period depreciation unchanged by reducing the historical depreciation that is attributed to the longer-lived assets whose life is not being adjusted to offset the additional depreciation that is calculated for the assets whose lives are to be adjusted.
15. The ERA's preference for applying the new lives backwards in time in this manner was because it was concerned:

¹² What we describe here is the outcome of DBP' proposal. As a mechanical manner, DBP proposed calculating the written down value for the life-reviewed assets at the end of the current period by commencing with the written down value of the existing asset-class-years (e.g., pipelines in 2007) and pro-rating this amount by the proportion of the original capital expenditure that is to be reclassified. This method is a short-cut means of incorporating the more complex elements of the past depreciation calculations.

- a. to avoid assets that have passed their useful life being included in the RAB on a forward-looking basis,¹³ and
- b. to avoid price changes in the short term that may be counter to encouraging the “efficient growth in the market for reference services”.¹⁴

2.2 Our advice

2.2.1 Approach most consistent with the Rules and economic efficiency

Relevant principles

16. In our view, the Rules that are most relevant to this matter are Rules 89(1)(a), (b) and (c), namely that

... the depreciation schedule should be designed:

- (a) *so that reference tariffs will vary, over time, in a way that promotes efficient growth in the market for reference services; and*
- (b) *so that each asset or group of assets is depreciated over the economic life of that asset or group of assets; and*
- (c) *so as to allow, as far as reasonably practicable, for adjustment reflecting changes in the expected economic life of a particular asset, or a particular group of assets; and*

17. The second and third of these principles work in tandem. The second requires assets to be depreciated over their economic lives, and the third then envisages that the remaining lives of assets would be adjusted over time so that they continue to track their economic lives as new information becomes available. The economic objective behind the requirement to depreciate individual assets over their economic lives is that tends to promote a time path of prices that is smoother than otherwise, and in turn promotes the efficient use of the asset. In contrast lives that are artificially short will create higher initial prices and then lower prices during the period after assets have been fully depreciated but not yet replaced. Conversely artificially long lives will leave some of one vintage of assets unrecovered at the time that replacements are required, which will tend to create the reverse time path of prices (i.e., higher in the future than would be the case if the correct lives had always applied). In addition, by tying depreciable lives to their economic lives rather than their technical lives, the prospect is reduced that some cost

¹³ Applying the new lives to past periods results in a material proportion of the assets whose lives are being adjusted being fully depreciated prior to the commencement of the next access arrangement period. For example, all motor vehicles and IT expenditure from the 2005-10 and 2011-15 regulatory periods, as well as all electrical and communications expenditure from the 2011-15 regulatory period, would be fully depreciated by the commencement of the next access arrangement period (these asset classes have standard lives of 5 and 10 years, respectively).

¹⁴ We observe, however, that the ERA’s proposal to not apply any depreciation to assets installed in the current access arrangement period that would fall into the new asset classes is counter to this objective.

may remain unrecovered if an event is expected that may lead to the market for the asset disappearing or reducing substantially in size or capacity to pay.

18. From an economic point of view, there would be no reason to distinguish between *changes* that result from a change to some aspect of the market being served by the pipeline, and *changes* that may reflect new information, including information that there may have been an error in past lives. The economic objective is for depreciable lives to align with their economic lives, and to be realigned with their economic lives if a variance has occurred, irrespective of the reason for that variance.
19. The first of the principles set out above provides an additional factor to consider when deciding on the depreciation method, which is that the resulting depreciation method be consistent with “economic growth”. We observe that this principle brings with it two concerns from a consideration of economic principles, namely that:
 - a. the recovery of fixed costs is spread over time in a manner that maximises the efficiency of use of pipeline assets, but subject to
 - b. the spreading of fixed cost recovery over time being consistent with an expectation that efficient costs will be recovered in total – absent such an expectation, efficient investment will not be encouraged, creating a risk as to whether the growth in the market would be possible. This latter criterion is also supported by the first of the “revenue and pricing principles” that are required to be taken into account when assessing an access arrangement, namely that “[a] service provider should be provided with a reasonable opportunity to recover at least the efficient costs the service provider incurs ... in providing reference services”.¹⁵

Application to the circumstances of the AGIG proposal

20. In our view, the approach to the proposed reclassification that is most consistent with the rules described above is to:
 - a. derive the capital base values for the assets whose life is to be adjusted as at the commencement of the next access arrangement period by applying the depreciation that was actually applied to those assets and factored into reference tariffs over the relevant past period
 - b. adjust the remaining lives for those assets on a forward-looking basis to reflect an updated estimate of their economic lives, which includes that assets that are already past their economic life would be depreciated immediately,¹⁶ and
 - c. then considering whether the aggregate effect of the adjustments to asset lives would be consistent with the promotion of efficient growth in the market for reference services, or whether some form of ameliorating measure is required.

¹⁵ National Gas Law, section 24(2).

¹⁶ By depreciated immediately I mean that depreciation for these assets would be set equal to their opening capital base values as at the start of the next access arrangement period.

21. The first of the steps above is an acknowledgement that how an asset is to be depreciated over a past period is merely a question of fact, and will reflect the lives and the method that had been employed over the life of the relevant assets to date. The second of the steps reflects the principle that asset lives should be adjusted to reflect an updated estimate of their economic life.
22. The third of the steps reflects the fact that the review of asset lives contemplated above would imply that there is a degree of catch-up that would naturally fall into the next access arrangement period. Thus, it is appropriate to consider whether the aggregate outcome of this would be consistent with the “efficient growth in the market”. The alternative would be to apply some form of transitional arrangement that spreads out the impact of the “catch-up”, subject to this not increasing materially the risk that costs could not be recovered. On this matter I observe as follows.
 - a. I am informed by AGIG that applying principle 89(1)(c) as I have recommended above would imply that prices over the next access arrangement period would be approximately 8 per cent higher than the price that otherwise would apply. I would be surprised if such a price change had the potential to cause a meaningful change in demand for the pipeline, given the typically low price elasticities of demand that are typically estimated.
 - b. To the extent that a concern about price shock nevertheless remains, then the preferred – and transparent – response would be to put transitioning arrangements; however, this is subject to the amount not being deferred to a point where there was a non-trivial risk that recovery may not be possible (i.e., as a consequence of competing sources of energy).

2.2.2 Views on the ERA’s proposal

Application of new lives to past periods

23. I have described above how the ERA has proposed to implement the adjustment to asset lives. In summary, this involves:
 - a. applying the new lives to the assets in question back to the date at which the asset first entered the regulatory asset base, except for the assets installed in the current access arrangement period, which were not depreciated, and
 - b. also adjusting the depreciation attributable to the assets in the original classes whose life is not being adjusted (i.e., that will remain in those original classes) to ensure that the total of the past depreciation for each of the original asset classes matches the amount that was included in past reference tariffs.
24. In our view, the ERA’s method is not the process that Rules 89(1)(b) and (c) envisages. The ERA is correct to conclude that an adjustment to asset lives should not alter the depreciation in aggregate that is attributed to past periods. However, equally, it does not make economic sense to adjust the past depreciation that is attributable to assets whose lives are not being reviewed as a means of keeping the total past depreciation unchanged.

- a. First, adjustments to the depreciation schedule is only authorised for assets whose lives have been reviewed and found to be inconsistent with their economic lives.
 - i. To be clear, the ERA’s proposed method for keeping the total of past depreciation intact is to change the depreciation for the assets that are to remain in the original classes.
 - ii. As there is no reason to question the correctness of the lives for the assets that will remain in the original classes – and so no reason to question the past depreciation for those assets – this will introduce an error into the past depreciation for the assets remaining in the original classes. This would appear contrary to Rules 89(1)(b) and (c).
 - b. Secondly, it is only possible for the ERA to apply the new life for assets retrospectively and adjust the capital base values for a set of remaining assets (i.e., to preserve historical total depreciation) because this particular situation involves the adjustment of lives for a small number of assets that were within a large class. If the life for all assets within a class were to be adjusted – or if every asset was being depreciated individually – then there would be no “remaining assets” whose value could be changed to keep historical totals unchanged, and so there would be no option but to apply the new life only on a forward-looking basis. The fact that the ERA’s method is only practicable in the unique context of this case suggests the ERA’s proposed method of applying Rule 89(1)(c) is not what the rules envisage.
25. As noted above, I agree with the ERA that Rule 89(1)(a) directs consideration of whether the depreciation schedule after adjustment is consistent with promoting the efficient growth in the market, and this might require a further adjustment to deal with the built up adjustment required. However, the adjustment required to promote the efficient growth in the market is one that would need to be tailored specifically to meeting that outcome. The effect of the ERA’s method is simply to depreciate this built up adjustment over the lives of the classes from which the assets were transferred, which would be a potentially very long transition given the long lives of some of the original classes. I address this issue further in section 2.2.3 below.

Alternative situation that would justify the ERA’s method – lives reflecting weighted average lives

26. We note for completeness that there is an alternative situation where the approach advocated by the ERA would have been appropriate. This situation is where the depreciation for a group of assets was determined according to the weighted average remaining life of the group. In this circumstance, the life being applied for depreciation purposes would be shorter than the economic life for assets with longer lives than the weighted average, but longer than the economic life for assets with shorter lives than the weighted average.¹⁷ However, in total, at least if applied correctly, the depreciation

¹⁷ The AER’s Post Tax Revenue Model applies, as a default, this form of grouping of assets within a particular class (e.g., pipelines) across different years (i.e., all past capital expenditure, or capital expenditure undertaken during a particular access arrangement period).

amount would be approximately correct (i.e., the same as would have occurred if the assets had not been grouped). This is illustrated in the simple example below.¹⁸

Table 1 – Effect of grouping of assets

	Value	Life	Individual depreciation		Grouped depreciation	
			Depreciation rate	Depreciation	W.A. depreciation rate	Depreciation
Asset 1	140	50	2.00%	2.80	2.40%	4.80
Asset 2	60	30	3.33%	2.00		
Total	200			4.80		4.80

27. Accordingly, in this situation, the mere fact that the life of one of the assets in the group may differ to the life assigned to the group is not a cause for concern, as this is merely the effect of grouping together assets with different remaining lives and applying a weighted average of those remaining lives when calculating depreciation. If a subset of the assets were to be removed from the group, then it would be incorrect to derive the written down value of the asset in question by applying the life for the group to the asset, because in reality the life applicable to that individual asset would have been applied (approximately) in practice for depreciation purposes, albeit calculated via the group.

28. However, in the case of the DBNGP, the evidence would suggest that lives for the asset classes in question do not reflect the weighted average of the components. Rather, the lives of capital expenditure in the principal assets classes (i.e., pipelines, compressors and meters) are either commensurate with, or in excess of, the lives that are applied by other pipelines, even though those other pipelines have additional asset classes to the DBNGP that house all or the majority of the secondary and other shorter-lived assets.¹⁹ In addition, the “other” category for the DBNGP has exceeded the life of its contents by some margin, at least once certain classification errors are corrected. Thus, the situation for the DBNGP is simply that, whilst the principal assets have been depreciated over lives that either approximate or exceed their economic lives,²⁰ as the secondary and shorter-lived assets have been depreciated over lives that in some cases have been well in excess of their economic lives.

¹⁸ As this simple example shows, for the grouping of assets to generate the same amount in aggregate as individual depreciation the weighted average of the depreciation rates (i.e., the reciprocal of the lives) needs to be applied in the calculation, rather than the weighted average of the lives. The weighted average remaining life – calculated as the residual of the weighted average depreciation rate – for this example is 41.67 years. The results of grouping of assets in this manner will be identical to individual depreciation until the time when the shorter-lived assets have passed their economic lives.

¹⁹ This is apparent by the benchmarking that we did for our earlier report: see Incenta (2019), Review of DBP’s proposed reclassification of assets for regulatory depreciation purposes: report for DBP, December, p.8, Table 1. We observe from this table that for the DBNGP: the life for pipelines is similar to the peers and at the midpoint of the financial reporting guidelines, even though some other pipelines have subclasses for components like valve stations; the compression life is consistent with other pipelines, the DBNGP meter life has been higher than other pipelines (although is now being lowered to be more consistent with peers) and the life for the other category is much greater than the equivalent category for the other pipelines.

²⁰ We observe that the ERA has accepted a revision to the remaining life for meters, and further that DBP contends that competition from alternative energy sources may cause the DBP to cease service before the end of its technical life.

Principle that the capital base should be preserved

29. Lastly, we observe that the ERA has made it clear that it intends that any adjustment to the economic lives of assets remain consistent with preserving the overall capital base, which in turn implies that the adjustment should have no effect on the aggregate of past depreciation.
30. Preserving the capital base in this manner is a requirement of Rule 77(2), which requires the capital base at the commencement of an access arrangement period to reflect “depreciation over the earlier access arrangement period”. More generally, adjusting the capital base from one regulatory period to the next to reflect the depreciation that had been factored into reference tariffs²¹ is fundamental to providing a “reasonable opportunity to recover at least the efficient costs” associated with reference services,²² which in turn is a pre-requisite for encouraging efficient investment.
31. I observe that one potential exception to the preservation of the capital base is where assets become “redundant”, in which case there is some capacity for the asset to be removed without being recognised in depreciation. However, the Rules apply a tight constraint to such a measure – for redundant assets to be removed at the start of one access arrangement period, a mechanism for identifying and removing redundant assets must have been established at the previous access arrangement period, and consideration given to the effect of the “uncertainty” that the mechanism. The response to this uncertainty that is prompted by the first revenue and pricing principle is to provide compensation for the risk that assets may be removed from the capital base without this being reflected in allowed depreciation, where such a risk is to be introduced.²³
32. We observe that the current AGIG access arrangement does not include such a mechanism, and so such an adjustment of this nature – that is, where the capital base may be adjusted without compensation – is not available in any event.²⁴

²¹ Part of the depreciation that is reflected in the depreciation for an access arrangement period relates to capital expenditure, the latter of which cannot be known in advance. Accordingly, the Rules provide for an access arrangement to address how this uncertain element of depreciation should be addressed (Rule 90(2)).

²² First revenue and pricing principle (NGL, section 24(2)).

²³ The form of allowance would be equivalent to the actuarially-fair insurance premium that would be payable for the one-sided consequence (i.e., a write-down of the capital base) given its probability of occurrence. In our view, redundant capital mechanisms are not a particularly useful regulatory mechanism as the appropriate compensation would be difficult to determine (including because the risk is dependent on the settings in the regulatory regime – such as the asset lives – and so would be provider-specific) and would do little to encourage greater efficiency by service providers.

²⁴ We are aware that the redundant capital provisions are sometimes used by regulators as a route to adjust the capital base to account for disposals, the latter of which are not addressed directly in the National Gas Rules (this absence of treatment is an omission, albeit not one that is sufficiently material for anyone to have sought to address). In the case of disposals, the ERA’s past practice has been to adjust the capital base for the proceeds received, which means that this does not result in a loss to the provider (i.e., the change to the capital base reflects the cash proceeds). Accordingly, it would be difficult to oppose such an adjustment, irrespective of whether there is a formal “mechanism” in place.

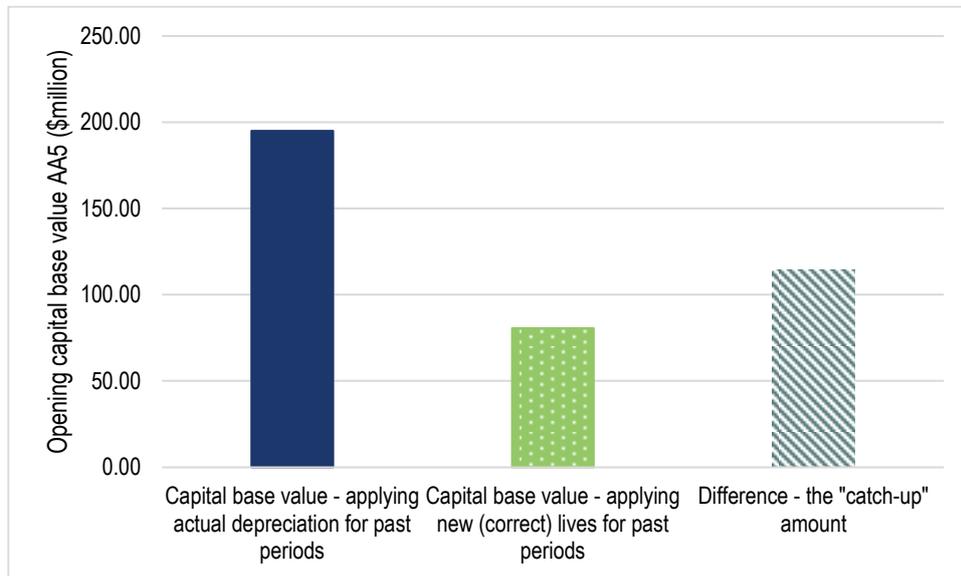
2.2.3 Transitional measures that may be justified by Rule 89(1)(a)

33. As noted above, we agree with the ERA that the time path of prices is a relevant consideration when constructing the depreciation schedule, and so this objective may cause it to be appropriate to transition or otherwise ameliorate the consequences from adjusting the economic lives of assets in accordance with Rule 89(1)(c). In addition, whilst the ERA's method can be interpreted as giving effect to such transition of sorts, the particular shape of that transition was not based upon an analysis of the form of transition that would be required to achieve the requirements of this rule.
34. For the purpose of considering the quantum of size of transitional arrangements that may be justified, the following components can be identified of the written-down value of the assets whose life is to be adjusted:
 - a. the capital base value that is derived by applying the new (correct) lives to the assets from the time the asset was installed, and
 - b. the difference between the above value and the capital base value that results from using the depreciation that was actually calculated on the asset and reflected in reference tariffs in past periods.
35. As the ERA has correctly recognised, there is no case for transitional arrangements in relation to the first of the above components. The depreciation that is calculated by applying the correct economic life to the written down value derived by assuming that life had always been applied is the same depreciation allowance that would always have been calculated if the correct lives had applied, and will be calculated in the future as assets are replaced.
36. The remainder represents,²⁵ in effect, the catch-up that is required to correct for the overly long lives that were applied in the past, including amounts that may have a continuing (financial) representation in the capital base, although the underlying physical assets may no longer be in service. It is in relation to this catch-up that a transitional arrangement may be justified where such an arrangement is necessary to achieve reference tariffs that promote the efficient growth in the market for reference services.
37. We have calculated each of these components of the written down value of the assets whose life is to be adjusted, and the results are set out in Figure 1.²⁶

²⁵ Note that what we refer here to as the remainder or catch-up amount is slightly larger than is calculated using the ERA's method. This is because the ERA did not depreciate the assets that fall within the new classes and that were installed within the current access arrangement period when calculating the opening capital base values for the new classes, whereas we think depreciation should be applied to those assets.

²⁶ In view of our scope, the calculations we have undertaken and presented in Figure 1, Figure 2 and Figure 3 relate to the assets that will reside within the new asset classes only. As DBP has also proposed an adjustment to the standard life for the "other" category, as well as a transition for the application of those new lives, an adjustment for the "other" category is required to reconcile our figures with DBP's documents.

Figure 1 – Components of the capital base values of assets whose life will be adjusted²⁷

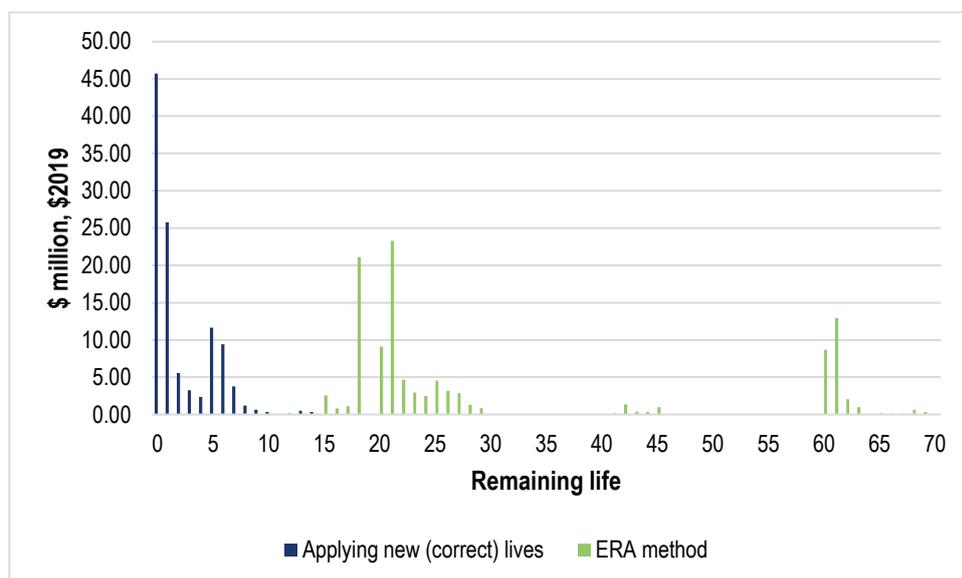


Source: Incenta calculations, using information from the DBNGP reference tariff model (using ERA draft decision for AA4 capital expenditure).

38. As discussed earlier, the effect of the ERA proposal is for the catch-up amount to remain in the asset class to which it was originally assigned. In Figure 2 below I compare the asset lives for this residual that result from simply applying the economic lives (as adjusted) – which I concluded above would be most consistent Rules 89(1)(b) and (c) – to the asset lives that are implied by the ERA’s proposal to leave this residual in the original category.

²⁷ Note that the assets whose life is to be adjusted – which is depicted here – are a small subset of the total capital base.

Figure 2 – Distribution of asset lives for the “catch-up amount”: new (correct) lives vs. the ERA method



Source: Incenta calculations, using information from the DBNGP reference tariff model (using ERA draft decision for AA4 capital expenditure).

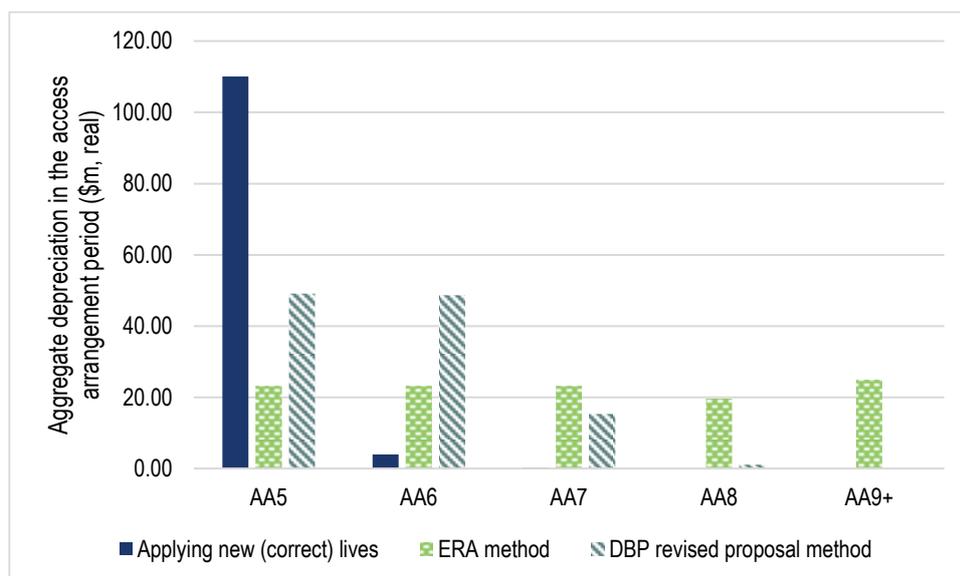
39. This figure shows that there is a potential need for a transition – the catch-up amount is reasonably material, and if the economic lives are applied to recover the catch up amount then this amount would have a weighted average remaining life of approximately 2 years, and most of this catch-up amount would be depreciated within the next access arrangement period (i.e., the entirety of the “assets” that have a remaining life of 5 or fewer years, and much of the balance).²⁸ In contrast, if the catch-up amount is simply left in the original asset classes, then a remaining life of approximately 28.5 years would be implied, and even then a material share would be assigned a remaining life of greater than 60 years. In my view, it would be difficult to justify such a long transition as something that is required to promote the “efficient growth in the market for reference services”.
40. Between these two bookends, there is room for judgement as to how to structure the transition, although the ultimate evaluation would depend on the extent to which the movements in reference tariffs were reduced so as to promote the efficient growth in the market for reference services.

²⁸

Below we explain that we think that AGIG’s proposed transition would appear to generate an appropriate *outcome* in terms of Rule 89(1)(a) and so meet the requirements of the depreciation provisions in the rules. We observe for completeness that there nothing inherently wrong or unusual (within limits at least) about an asset having a continuing financial representation in the capital base, even though the asset may no longer be in physical service. For example, this has been the outcome for a number of the Victorian gas distributors in relation to their old cast iron mains after those mains had been replaced and for electricity distributors in relation to power lines that had been destroyed by bushfire or storms. Clearly, however, where a regulated may face competition in the future, then having the financial capital base too divorced from (and in excess of) the physical presence of assets will exacerbate stranded asset risk.

41. AGIG’s revised proposal is for there to be a transition whereby the “catch up” asset value is not depreciated as such, but rather written-off in stages at the commencement of each access arrangement period to the extent that the underlying assets had passed the end of their economic lives. This means that the portion of the catch-up associated with assets that are already passed the end of their economic life will be written-off in AA5, and then the portion of the catch-up associated with assets that are beyond their economic lives at the start of a future access arrangement period would be written-off during that period. Whilst this proposal has been developed to address the ERA’s concern about out-of-service assets being represented in the capital base, this mechanism is also very effective at extending the period over which the catch-up asset is recovered and so smoothing out the price impact. This is demonstrated in Figure 3,²⁹ which shows the aggregate depreciation attributable to the “catch up” asset value under the two previous scenarios (i.e., applying the remaining lives of the underlying assets and under the ERA method) and under AGIG’s proposed transition.

Figure 3 – Depreciation attributable to the catch-up asset value, by access arrangement period



Source: Incenta calculations, using information from the DBNGP reference tariff model (using ERA draft decision for AA4 capital expenditure).

42. We observe that the proposed transition extends the recovery period for the catch-up asset from largely falling in the next access arrangement period (AA5), to being spread over the next two and a half access arrangement periods.³⁰ In contrast, the ERA method would leave more than a quarter of the catch-up asset value left to be recovered five or more access arrangements into the future.
43. In our view, the proposed transition is simple and results in the “catch up” being spread over approximately two and a half access arrangement periods (rather than centred on the

²⁹ This figure assumes the approach adopted for AA5 is repeated for AA6, 7 and 8.

³⁰ Technically, as reference tariffs are smoothed over each access arrangement period, there would be a recovery of the catch-up asset over the whole of the third access arrangement period, but at approximately half of the previous annual rate.

next access arrangement period) and so ameliorates the effect on prices, and would appear to address the concerns centred around Rule 89(1)(a). In contrast, the transition that is implicit in the ERA method is much more than could be justified to meet Rule 89(1)(a).