2023-27
POWERLINK QUEENSLAND REVENUE PROPOSAL

Appendix 10.01 – PUBLIC

Depreciation Tracking Approach

1 Purpose

Powerlink has proposed to change its depreciation tracking approach from our current Weighted Average Remaining Life (WARL) approach to a year-by-year tracking approach. Our customers requested further information and comparison between these two approaches to help understand the impact of the change. To respond to this, we have prepared this appendix as supporting information to Chapter 10 Depreciation of our Revenue Proposal.

In this appendix we provide further detail about the regulatory requirements for depreciation, both depreciation tracking approaches and our proposed transition mechanism, which will smooth the consequent price impacts of this change in approach over two regulatory periods.

Further detail is also contained in our depreciation tracking model, which uses the AER's 2020 depreciation tracking model (Version 1), provided with our Revenue Proposal.

2 Overview

Our Revenue Proposal proposes to change our depreciation forecasting method from the WARL to the year-by-year deprecation tracking approach. We propose the following method to give effect to this change:

- assets in existence at 30 June 2017 are depreciated by asset class using straight-line depreciation based on the remaining lives determined by the AER for the 2018-22 regulatory period; and
- for all new capital expenditure from 1 July 2017, a new asset sub-class will be created for each year. Assets in that sub-class will then be depreciated over the relevant standard lives.

In response to customer feedback, we also propose a minor adjustment to smooth the transitional impact of this change. This is discussed further in Section 1.7 of this appendix.

2.1 Regulatory requirements

The Rules[1] require depreciation to be calculated based on the approved depreciation schedule for each asset or category of assets. The depreciation schedules must conform to these requirements:[2]

- The depreciation profile must reflect the nature of the asset/asset category over the economic life of that asset/asset category.
- The sum of the real value of depreciation of any asset/asset category must be equivalent to the value at which that asset/asset category was first included in the RAB.
- The economic life of the relevant assets, and the depreciation methodologies and rates used to calculate depreciation in a given regulatory period, must be consistent with those determined for the same assets on a prospective basis in the transmission determination for that period.

The AER must accept a TNSP's nominated depreciation schedule if it meets these requirements.

[1] National Electricity Rules, clause 6A.6.3(a).
[2] *Ibid*, clause 6A.6.3(b).

2.2 Overview of the year-by-year approach and the current WARL approach

There are two approaches to forecasting depreciation that have been widely used by Network Service Providers (NSPs) and have been accepted by the AER. These approaches are the WARL and the year-by-year tracking approach.

2.2.1 The WARL approach

The current approach we apply depreciates all assets in an asset class based on the WARL of the assets in that class. The WARL of each asset class needs to be recalculated prior to the commencement of each regulatory period for the updated age profile of the assets in that class. This captures any new expenditure during the current regulatory period along with assets that have are close to the end of their useful lives.

A mature electricity transmission network such as Powerlink comprises a significant number of individual assets. A WARL approach is intended to simplify depreciation as all assets in an asset class will be depreciated using the same WARL. However, this relative simplicity comes at the expense of transparency and accuracy. This is because the WARL applied to each asset in an asset class could be higher or lower than the actual economic life of that asset, depending on when the expenditure was incurred. New assets will be grouped with existing assets of varying ages in the same asset class, including assets that are approaching end of life.

Depending on the expenditure profile in each asset class this could, for example, increase the likelihood that:

- a new asset in the class is depreciated based on a WARL that is less than the economic life of that asset (i.e. it shortens the life of new assets); while
- an asset approaching end of life is depreciated based on a WARL that is higher than the economic life of that asset (i.e. it extends the life of old assets).

This could result in the under or over-recovery of depreciation in a year. The WARL approach assumes that these effects will 'average out' across all assets in the asset class, as well as over time[3].

2.2.2 The year-by-year tracking approach

The year-by-year tracking approach groups new capital expenditure by asset class. Each class is then separately depreciated over approved standard asset lives.

Each asset class is effectively separated into sub-classes for each year in which expenditure is incurred in that asset class. For example, the asset class 'Underground Lines' could have the sub-classes 'Underground Lines 2023', 'Underground Lines 2024' and so on, with new sub-classes created for each year of expenditure. This ensures that all future capital expenditure can be tracked and accurately depreciated over the life of the relevant assets.

In addition to being accurate it is also transparent. However, because it requires assets to be tracked and depreciated to a greater level of detail, it can be seen as more complex. In April 2020, the AER released a depreciation tracking model as an attachment to the amended Roll Forward Model (RFM). This model standardised the approach, calculation and structure of year-by-year tracking depreciation.

2.3 Reasons for our proposed change in approach

We have had regard to a number of key considerations prior to making our decision to propose a change from the WARL approach to year-by-year depreciation tracking:

[3] Final Determination, SA Power Networks Determination 2015-16 to 2019-20, Attachment 5 Regulatory Depreciation, Australian Energy Regulator, October 2015, pages 5-13.

1. **Compliance with the Rules:** We must satisfy the requirements of the Rules. As summarised in section 2.1, this addresses two key economic principles:
    a. **Alignment with economic life:** The depreciation profile reflects the nature of the assets and the economic life of those assets. This also ensures that our recovery of costs aligns with the economic life of the assets.
    b. **Recovery of efficient costs:** The total depreciation recovered (in real terms) matches the initial expenditure on the assets.
2. **Customer impacts – reduce variability in prices:** We understand that our customers are concerned about variability in prices. Changes in depreciation could contribute to this.
3. **Customer impacts – intergenerational equity:** Intergenerational equity is an economic principle that is particularly relevant for infrastructure assets with long economic lives. This equity is achieved when the recovery of costs of an asset from a group (or generation) of users aligns with the benefits they derive from that asset.
4. **Customer impacts – minimise adverse transitional revenue and price impacts:** From our customer engagement, we understand that our customers are concerned about short-term price increases that could arise from transitioning between approaches.
5. **Transparency:** A transparent depreciation approach ensures that we remain accountable to our customers and stakeholders in the calculation and application of depreciation. It enables customers and stakeholders to better understand our approach and what may have led to changes in our depreciation allowance.
6. **Avoid unnecessary complexity:** Simplicity is favoured over complexity where possible. This also reduces administration costs.

After consideration of the above, on balance we consider a change to the year-by-year tracking approach is appropriate.

Application of the year-by-year approach will achieve better outcomes for our customers over the long-term. In particular, we consider that the benefits of better alignment between an asset's depreciation profile and its economic life, along with improved transparency, outweigh the potential disadvantages. We do not consider that it unnecessarily increases complexity. This is aided by the availability of the AER's 2020 depreciation tracking model (version 1).

In the context of our total MAR and prices, we also consider that this is an opportune time to implement such a change while our Weighted Average Cost of Capital (WACC) is low.

This change in approach is broadly supported by our customers, subject to concerns about transitional impacts being addressed[4], which we have sought to do (refer Section 1.6 of this appendix). In its advice to the AER, the CCP23 expressed concern about the price impact of the depreciation change, while also recognising that Powerlink had discussed its change in approach extensively with its RPRG and Customer Panel and had made efforts to smooth the transition impact[5].

The AER has accepted that this approach meets the requirements of the Rules and other regulated electricity networks have changed to the year-by-year tracking approach[6].

[4] Customer Panel submission to our draft Revenue Proposal. Refer Appendix 3.02 Submissions on our draft Revenue Proposal.
[5] CCP23 Advice to the Australian Energy Regulator: Powerlink Draft Revenue Proposal, October 2020.
[6] This is summarised in a range of Final Decisions for TasNetworks, ElectraNet, United Energy, AusNet Services, Jemena, Citipower, Powercor, SA Power Networks, Energex and Ergon Energy.

2.4 Implications for our customers

2.4.1 Customer engagement

We discussed our proposal to move to year-by-year tracking as part of our customer consultation. This was initially presented to our Regulatory Proposal Reference Group (RPRG) and Customer Panel at the June 2020 meeting[7].

Indicative modelling

As part of our consultation we discussed the impacts of the change in approach. Our indicative modelling showed an estimated $20m increase (approximately 3%) in the 2023-27 regulatory period followed by a $27m reduction in the 2028-32 regulatory period. This translates to an indicative price impact for an average residential customer of approximately $2 per annum in the 2023-27 regulatory period.

Customer feedback

Overall, customers were supportive of the approach in principle. However, they expressed concerns about the potential short-term price impacts. Customers asked that we consider ways to smooth the revenue impact of the change in approach, potentially across two regulatory periods. This is discussed in more detail below.

2.5 Proposal to manage transitional impacts

In response to customer feedback, we investigated ways to smooth the transitional impacts over the next two regulatory periods. Our investigation identified the secondary systems asset class as one of the main contributors to the transitional impact. This asset class has a relatively high value of assets with a short life.

The opening balance and WARL of the secondary systems asset class at 30 June 2017 represents a mixture of older assets that may have surpassed the standard life and newer assets that have a longer remaining life than the WARL.

We therefore propose a minor adjustment to extend the WARL of the existing secondary systems assets at 30 June 2017 from 9.82 years to 11 years. This will reduce the impact of the change in approach on our customers. While this will extend the length of time over which we will recover the costs of these assets, this still results in a WARL that appropriately reflects their economic lives.

The indicative impact of this is shown in Table 1.1. This illustrates that it will smooth the impact of the change in approach over the next two regulatory periods.

Table 2.1: Indicative MAR impacts of proposed smoothing approach ($m real, 2021/22)

Regulatory period	Indicative MAR impact before adjustment	Indicative MAR impact after adjustment	Difference
2023-27	20	12	(8)
2028-32	(27)	(19)	8

We have presented this approach and the indicative outcomes to our customers.

We consider that this proposed approach best addresses the concerns of our customers and remains consistent with the requirements of the Rules[8]. We have also discussed this approach with AER staff.

[7] Presentation and minutes of the June 2020 Revenue Proposal Reference Group (RPRG) meeting, https://www.powerlink.com.au/2023-2027-regulatory-period
[8] National Electricity Rules, clause 6A.6.3(b)

2.6 Summary

We consider that a change in depreciation tracking from WARL to year-by-year is appropriate. The year-by-year approach provides greater accuracy and transparency. This should also benefit customers over the long-term as the recovery of our capital expenditure will better align with the benefits an asset delivers to customers over its economic life.

In response to feedback from our customers, we also propose a minor change to the WARL of secondary systems assets as at 30 June 2017. This will smooth the impact of this change on customers across the 2023-27 and 2028-32 regulatory periods.