RETURN ON ASSETS

Explanatory Note

This note explains our approach to report on Return on Assets (ROA) for the network service providers (NSP or NSPs) we regulate as well as factors that should be taken into consideration when interpreting these ratios. This note discusses:

- *What is Return on Assets?*
- *Notes on interpreting ROA*
- *How we calculate ROA*

What is Return on Assets?

Return on Assets (ROA) is a simple and commonly used ratio indicating how profitable a company is relative to its total assets.

The ROA ratio is suited to capital intensive businesses and allows us to compare NSP profits against their allowed rate of return.

ROA is calculated using the following formula:

$$\text{ROA} = \frac{\text{EBIT}}{\text{RAB}}$$

Where:

- EBIT is Earnings before Interest and Tax
- RAB is the opening Regulatory Asset Base

Notes on interpreting ROA

Our regulatory framework is designed to target a real rate of return. NSPs are also compensated for actual inflation outcomes, preserving the purchasing power of NSPs and investors.[1]

To capture these two components of our framework we report both real and nominal returns, which are compared against different allowed rate of returns.

- Real rate of return, which excludes inflation and is compared against the *Real pre-tax rate of return*
- Nominal rate of return, which includes inflation and is compared against the *Nominal pre-tax rate of return*.

The ROA measures can be compared against:

- An NSP's allowed rate of return
- Other NSPs in the sector, and
- Australian and international regulated businesses where the RAB is valued on a similar basis to that of the NSP.

It is difficult to compare a NSP's ROA measures directly to those of unregulated businesses due to the unique characteristics of the RAB under the regulatory framework, and the resulting rules for regulatory accounting, which differ to statutory accounting requirements.

Temporary factors contributing to differences between ROA and the allowed rate of return

A NSP's returns can temporarily deviate from its allowed rate of returns in any given year due to the application of the regulatory framework.

Certain factors over the period of analysis has influenced these deviations. This can affect how the allowed level of regulated revenues are recovered from customers in subsequent regulatory years.

The following factors to be taken into consideration when interpreting the ROA.

- Revenue smoothing
- Unders and overs arrangements
- Cost pass-through events
- Other pass-through events
- NSW/ACT transitional decisions and remittal processes
- Permanent factors contributing to differences between ROA and the allowed rate of return.

[1] AER, *Final Position Paper – Profitability measures for electricity and gas network businesses, Measures and technical issues*, December 2019, pp.6–7.

Revenue Smoothing

Allowed revenues for an NSP are calculated using the various building block costs and result in an annual revenue requirement for the NSP.

These revenues are then smoothed over the regulatory period to avoid significant changes in year on year revenues. This smoothing results in a series of ‘X-factors’ which are a key driver of annual network revenue targets.

The impact of smoothing is that the profile of target revenues over the regulatory period is often different to that which would have resulted from the raw (unsmoothed) building blocks.

Unders and Overs arrangements

A NSP operating under revenue cap regulation may recover more or less than its allowed revenue target in any given year, due to differences between forecast and actual demand.

This difference is adjusted for through the revenue cap unders and overs arrangement, and returned to customers in subsequent years.

Over time this means that a NSP can never recover more or less revenue than allowed in net present value terms.

Cost pass-through event

Pass-through events are considered during a NSPs determination.

A cost pass-through mechanism recognises that an NSP may be exposed to costs that are beyond its control. Cost pass-through events, when approved, allow NSPs to recover costs that are not built into its revenue determination.

Not all cost pass-throughs lead to higher prices for consumers. In some instances incurred costs are lower than forecast, meaning revenues must be returned to customers in subsequent years.

Other pass-through events

An electricity distribution NSP is required to recover other pass-through revenues including revenue earnt on behalf of transmission NSPs and revenue related to Jurisdictional schemes.

An electricity distribution NSP may under or over recover revenues for these pass-throughs in any given year, resulting in deviations in its returns against allowances.

An electricity distribution NSP must operate an unders and overs account for both the transmission and Jurisdictional scheme revenues. This means that an electricity distribution NSP can never recover more or less revenue than allowed in net present value terms.

NSW/ACT transitional decision and remittal process

Analysis for the NSW/ACT electricity distribution NSP’s 2014/15 - 2018/19 regulatory periods should be interpreted with caution. Reported revenues for those years have not been adjusted for:

- The transitional decision in 2014/15, which set a higher revenue target for that year compared to the final regulatory determination.

  As a result, revenues recovered in 2014/15 were materially higher than the final decision. This over recovery was returned to customers throughout the remainder of the regulatory period.

- Our 2014/15 - 2018/19 regulatory determinations final decisions, which NSPs appealed and were subsequently set aside.

  During the period of appeal we accepted undertakings given by NSPs that set out how they would recover revenues for years 2016/17 - 2018/19. These undertakings resulted in revenue collection in excess of our final remittal decision for some NSPs.

  Any over recoveries arising from the undertaking process will be returned to customers in the 2019/20 - 2024/25 regulatory period.

Permanent factors contributing to differences between ROA and the allowed rate of return

The ROA measures capture drivers of a NSP’s actual performance against allowances. This captures:

- Incentive scheme rewards and penalties
- A NSP’s performance against operating expenditure allowances.

How we calculate ROA

This section sets out the approach and data sources we used to calculate ROA.

The methodology has been designed to allow for the best possible comparison of NSPs’ actual returns against allowed returns on capital.

The data used to calculate ROA is sourced from the following sources:

- The latest approved or proposed roll-forward models (RFMs) for the NSP.
- The latest approved or proposed post-tax revenue models (PTRMs) for the NSP.
- Annual submissions reported by the NSPs to the AER.

Revenue and expenditure

Revenues and expenditures are sourced from the income worksheet of the annual reporting regulatory information notices (RINs) (electricity distribution NSPs and gas NSPs) and the disaggregated income statement of the annual regulatory accounts (transmission NSPs).

This relates to the core regulated services of the NSP. These are:

- Standard control services for electricity distribution NSPs
- Prescribed transmission services for transmission NSPs
- Haulage reference services for gas distribution NSPs
- Reference services and other services provided as a covered pipeline for gas transmission NSPs.

Revenue excludes capital contributions, interest income and profit from the sale of fixed assets.

- Capital contributions are not included in the RAB and are not used in the calculation of returns in the regulatory framework.
- Interest income is excluded as it is not part of the regulatory framework.
- Disposals (gross proceeds from an asset's sale) are removed from the RAB. The value of disposals in any given year is not used in the calculation of returns in that same year and is therefore excluded from our annual calculations. Disposals do impact returns on capital in *future* years by reducing net capex additions to the RAB. We capture this effect through the use of the actual opening RAB as the basis for calculating returns.

Expenditure excludes finance charges, impairment losses and loss from the sale of fixed assets.

- Finance charges largely comprise interest payments on debt and therefore excluded as the ROA calculation is based on earnings before interest and tax.
- Impairment losses are excluded as they are not permitted by the regulatory framework.
- Disposals (gross proceeds from an asset's sale) are removed from the RAB. The value of disposals in any given year is not used in the calculation of returns in that same year and is therefore excluded from our annual calculations. Disposals do impact returns on capital in *future* years by reducing net capex additions to the RAB. We capture this effect through the use of the actual opening RAB for the basis of calculating returns.

Electricity distributors Ausgrid and Evoenergy are owners of dual function assets, which operate in parallel with TransGrid's transmission network and essentially perform a transmission function by supporting the main NSW transmission network.

The revenues and expenditures associated with the operation of dual function assets have been included in the standard control services for the relevant electricity distribution NSPs.

Depreciation

We have reported depreciation using nominal straight-line depreciation which is measured on an as-incurred basis for all NSPs.

Depreciation is sourced from the final decision RFM where available. Where a final decision RFM is unavailable we have used the most recent regulatory proposal or draft decision RFM.

Where those models are unavailable, for electricity distribution NSPs we have sourced depreciation from the annual economic benchmarking RIN.

For electricity transmission NSPs, where an RFM is unavailable we have sourced depreciation from the PTRM. This allows us to consistently report nominal straight-line depreciation on an as-incurred basis.

The PTRM calculates depreciation using forecast inflation. We have updated depreciation sourced from the PTRM using actual inflation where available.

For gas distribution and transmission NSPs we will determine the source of the data when historical data is reported by these NSPs in November 2020.

Regulatory Asset Base

To allow for comparison between actual and expected returns we use the opening RAB in our calculation of ROA.

We have reported the RAB on an as-incurred basis for both electricity distribution and transmission NSPs.

The opening RAB is sourced from the final decision RFM where available. Where a final decision RFM is unavailable we have used the most recent regulatory proposal or draft decision RFM.

Where those models are unavailable, for electricity distribution NSPs we have sourced opening RAB from the economic benchmarking RIN.

For electricity transmission NSPs we have sourced opening RAB from the PTRM. This allows us to consistently report the opening RAB on an as-incurred basis.

The PTRM calculates the opening RAB using forecast inflation. We have updated the opening RAB using actual inflation where available.

For gas distribution and transmission NSPs we will determine the source of the data when historical data is reported by these NSPs in November 2020.

When calculating real ROA we must inflate the opening RAB by CPI. This is because a NSPs returns on capital are calculated using the nominal rate of return (nominal pre-tax return on debt and nominal post-tax return on equity). Inflating the RAB by CPI ensures that a NSPs returns and the RAB are in the same dollar terms.

When calculating nominal ROA inflating the RAB is not required. RAB indexation is included as a component part of the returns a NSP receives, providing the NSP with compensation for actual inflation.

Indexation of the opening RAB

Indexation of the RAB is sourced from the RFM where available. Where a final decision RFM is unavailable we have used the most recent regulatory proposal or draft decision RFM.

Where those models are not available we have calculated indexation on the opening RAB using CPI figures sourced from the Australian Bureau of Statistics.

Incentive scheme rewards and penalties

Our regulatory framework provides NSPs with rewards or penalties through targeted incentive schemes aimed at improving network efficiency and reliability. These schemes allow NSPs to earn rewards (penalties) above (below) their allowed rate of return.

Customers should ultimately benefit from these schemes through lower regulated prices and improved reliability.

The ROA measure has been calculated both with and without incentive scheme outcomes so that the impact of incentives on actual returns can be observed.

The rewards and penalties from incentive schemes has been sourced from:

- For electricity NSPs the revenue sheet of the Economic Benchmarking Regulatory Information Notice (RIN) (table 3.1.3).
- For gas NSPs the revenue sheet of the Annual Reporting RIN (table F3.6).

Annual updates

We will update ROA annually replacing economic benchmarking RIN and PTRM data with appropriate RFM data where available.