



## **AER Discussion Paper**

# **Profitability measures for regulated gas and electricity network business**

November 2017

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## Glossary

Shortened Form	Extended Form
ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
CCP	Consumer Challenge Panel
EBIT	Earnings before interest and tax
COAG Energy Council	Council of Australian Governments Energy Council
IRR	Internal Rate of Return
NEL	National Electricity Law
NER	National Electricity Rule
NGL	National Gas Law
NGR	National Gas Rules
NPAT	Net Profit After Tax
RAB	Regulated Asset Base
WACC	Weighted Average Cost of Capital

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# 1 Overview

The Australian Energy Regulator (AER) regulates energy markets and networks in jurisdictions other than Western Australia.

The energy market is in transition, and our work takes place in the context of significant technological, behavioural and systemic change. Our work places consumers at the heart of this transition, as we play our part in delivering a secure, reliable and affordable energy future for Australia. This means contributing our expertise and insight to policy debates, regulating in a flexible way that fosters innovation, and ensuring consumers are supported as the market evolves. We work in partnership with other energy market bodies and the COAG Energy Council (Energy Council) to provide strong governance and to ensure our work programs aligns with broader energy priorities so reforms can be coordinated and efficiently sequenced.

We want to see successful businesses thrive and be appropriately rewarded because they meet the needs of consumers. This is best delivered through competition, with regulation advancing the long term interests of consumers where necessary.

We regulate 32 electricity and gas transmission and distribution businesses, including:

- 7 electricity transmission and 14 electricity distribution businesses
- 4 gas transmission and 7 gas distribution businesses.

Through the regulatory reset process, consumer groups and other stakeholders have raised concerns about the profit levels of regulated electricity and gas network businesses. They argue the regulatory framework enables regulated network businesses to achieve returns above expected returns given the risks they face.

Under the national energy laws and rules, the AER may prepare and publish reports on financial performance or operational performance, including profitability and efficiency, of regulated businesses. While we have previously published some information on the profitability of the network businesses in our performance reports, this has not been on a continuous or consistent basis.

We are commencing a consultation process to identify profitability measures and the data required to calculate these measures.

We plan to begin collecting this data from electricity and gas network businesses as part of our annual regulatory reporting processes. We will publish this information and use it to report on profitability in performance reports. In addition to measuring the actual profitability of a regulated entity, the measures should also allow comparison of forecast returns against actual returns, comparison of regulated businesses against each other and comparison of regulated businesses against other businesses.

We would like feedback from stakeholders on the matters raised in this discussion paper.

## 2 What is the issue?

### 2.1 Issues raised by consumer groups

Consumer groups have raised concerns around excessive profitability of regulated electricity and gas businesses.<sup>1</sup> They argue the building block framework used to determine revenue overcompensates regulated businesses.

For example, in its submission to the Victorian electricity DNSP's revenue reset 2016-20, the Consumer Challenge Panel (CCP) stated that there was a persistent pattern of excessive profits, not explained by efficiency improvements relative to AER's cost benchmarks.<sup>2</sup> The CCP submitted that the regulatory arrangements were delivering outcomes in excess of efficient returns, with profits substantially higher than the level of risk faced by the businesses. It encouraged the AER to develop its own internal database on company profits, using its information gathering powers to collect this information. It suggested that this would provide a useful check to the claims by DNSPs and an ex-post assessment of the AER's own regulatory decisions.

Further, the Public Interest Advocacy Centre (PIAC) has also submitted that *the AER did not take sufficient note of the extraordinary profits that the regulated businesses were making*, suggesting this indicated *gaps in the National Electricity Rules (NER)*.<sup>3</sup> PIAC recommended the AER *benchmark its decisions on the rate of return, by making more use of actual financial information taken from the DNSPs annual audited reports and other sources*.

### 2.2 AER position

As required by the National Electricity Rules (NER) and National Gas Rules (NGR), the AER determines the maximum revenue that network businesses can recover from consumers using a building block framework. This is an incentive based regime: it does not guarantee a set return. Therefore, a business might financially underperform or outperform benchmarks.

This incentive-based approach to regulation is designed to align the commercial goals of the business to the National Energy Objectives and National Gas Objectives. Under the this framework, the AER determines the revenues that an efficient and prudent business would require at the start of each five-year regulatory period, based on assessment of forecast operating expenditure, capital expenditure, tax and rate of return. The business will get financial rewards if it improves its efficiency, spending less than the forecast during the

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<sup>1</sup> See for example:

Consumer Challenge Panel - Subpanel 4 (Hugh Grant and David Headberry) - 20 June 2016- Advice on Powerlink regulatory proposal 2017-22

AGL Submissions to the AER on the NSW Electricity Distribution Networks 2014-19 Revenue Proposals, August 2014  
Consumer Challenge Panel - Subpanel 2 (Hugh Grant) — 3 September 2015 — Submission on the AER's Preliminary Revenue Determinations for the Queensland Distributors

<sup>2</sup> CCP3 Response to AER Preliminary Decision and revised proposals from Victorian electricity DNSPs for revenue reset 2016-20.

<sup>3</sup> PIAC submission to the Australian Energy Regulator's NSW electricity distribution network price determination, August 2014.

regulatory period, while maintaining or improving its service standards. If the business spends less than the forecast it will still earn revenue to cover the total forecast amount. Hence, it can 'keep the difference' between the forecast and its actual expenditure until the end of the regulatory control period. Conversely, if its spending exceeds the forecast, it must carry the difference itself until the end of the period.

An AER determination does not set network expenditures or endorse specific projects. We place a cap on the revenue a network can recover from its customers during the regulatory control period. Consequently, a network operator must decide how best to use this revenue in providing services and fulfilling their obligations. This provides an ongoing incentive for networks to operate more efficiently and at 'least cost' to consumers. It also provides incentives for the network operator to innovate and invest in response to changes in consumer needs and technology, which is consistent with economic efficiency principles.

Consumers ultimately benefit from improved efficiency through lower regulated prices. If a network operator is able to deliver the regulated services at a lower cost than forecast, both consumers and the operator share the benefits.

This approach does not consider profitability when setting annual revenue requirements for regulated businesses and we note that the NER and NGR do not require profitability to be considered.

While consumer groups accept this approach, they contend that collecting and reporting information on the profitability of network businesses may assist stakeholders in assessing the revenue proposals of the network businesses and the operation of the broader regulatory framework. Further, they emphasise reporting of profitability meets the objective of our Stakeholder Engagement Framework to increase the transparency of our regulatory activities and improve stakeholder participation in the regulatory process.<sup>4</sup>

This review will examine the issues raised by consumer groups and identify appropriate profitability measures for the AER to collect and report to assist in the achievement of the National Gas and Electricity Objectives.

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<sup>4</sup> AER Revised Stakeholder Engagement Framework September 2016

## 3 Reporting on network profitability

### 3.1 Profitability reporting by other regulators

Financial performance and profitability measures are commonly reported for other regulated businesses in Australia. For example, The Australian Competition and Consumer Commission (ACCC) monitors and publishes information relating to prices, costs, profits and service quality of a range of sectors including aeronautical services and airports, postal services, telecommunications, waterfront and shipping, and water sectors. This includes information on industry margins and the rate of returns on assets.<sup>5</sup>

In other countries, data to enable the calculation and reporting of profitability measures is commonly collected by regulators to assess the financial performance of electricity and gas businesses compared to the expected returns under the framework applying in that jurisdiction.

For example, in the United Kingdom, Ofgem monitors the financial performance of the electricity and gas transmission and distribution businesses it regulates by collecting data to calculate and report a return on regulated equity and profit per customer. This is compared with the cost of equity to determine whether businesses are outperforming or underperforming.<sup>6</sup>

In New Zealand, electricity distribution businesses regulated by the Commerce Commission provide data on asset value and cash flow to enable the calculation of an internal rate of return (IRR). This is compared to expected returns based on a nominal estimate of the weighted average costs of capital.<sup>7</sup>

In Ontario Canada, the Ontario Electricity Board calculates a return on equity to review the financial performance of electricity distributors, allowing a 3 per cent variance on the expected return on equity.<sup>8</sup>

### 3.2 Requirements of the National Electricity and Gas Laws

The National Electricity and Gas Laws specifically allow the AER to prepare performance reports on the operating and financial performance, including the profitability, of regulated network businesses.

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<sup>5</sup> See for example:

ACCC, Airport monitoring reports, at: <https://www.accc.gov.au/publications/airport-monitoring-reports>

ACCC, Assessing cross subsidy in Australia Post, at: <https://www.accc.gov.au/publications/assessing-cross-subsidy-in-australia-post/assessing-cross-subsidy-in-australia-post-2013-14>

ACCC, Water monitoring and reporting, at: [https://www.accc.gov.au/system/files/1144\\_Water%20Report%202015-16\\_Text\\_FA4.pdf](https://www.accc.gov.au/system/files/1144_Water%20Report%202015-16_Text_FA4.pdf)

<sup>6</sup> Ofgem, The revenues, costs and profits of the large energy companies in 2012 (25 November 2013)

<sup>7</sup> Commerce Commission New Zealand, Profitability of Electricity Distributors Following First Adjustments to Revenue Limits, 8 June 2016

<sup>8</sup> Ontario Electricity Board, Frequently Asked Questions - Scorecard for Ontario's Electricity Distributors

## **National Electricity Law**

Relevant law and rules regarding the preparation of NSPs performance reports are contained in Division 5 of Part 3 of the NEL and Chapter 8 of the NER.

NEL Section 28V(1) states that

*the AER may prepare a report on the financial performance or operational performance of 1 or more network service providers in providing electricity services.*

NEL s. 28V(2)(a) specifies the content of a NSP performance report may

- (a) deal with the financial or operational performance of the NSP in relation to:
- (iii) the profitability and efficiency of NSPs in providing electricity network services.

## **National Gas Law**

The NGL also allows us to prepare performance reports, which can include information on the profitability of scheme pipeline service providers. NGL Division 1 section 27 states that:

*The AER has the following functions and powers:*

- (f) to prepare and publish reports on the financial and operational performance of service providers in providing pipeline services by means of covered pipelines;

NGL Division 5 section 64 relates to the *Preparation of service provider performance report.*

*A report prepared under this section may*

- (a) deal with the financial or operational performance of the scheme pipeline service provider in relation to
- (iii) the profitability and efficiency of scheme pipeline service providers.

### **3.3 AER reporting on profitability**

The AER does not currently have in place a performance measurement framework to provide a clear picture of the profitability of regulated electricity and gas businesses.

We have previously published some information on the profitability of network businesses in performance reports. This included data on:

- earnings before interest and tax (EBIT) in the *Electricity Distributors Performance Report*<sup>9</sup>
- EBIT, net profit after tax (NPAT), return on assets and return on equity in the *Transmission Network Service Providers Electricity Performance Report*<sup>10</sup>
- return on assets in the *Victorian Gas Distribution Business Comparative Performance Report*.<sup>11</sup>

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<sup>9</sup> AER, Electricity Distributors 2011-13 Performance Report (June 2015)

<sup>10</sup> AER, Transmission Network Service Providers Electricity Performance Report 2010-11 (July 2013)

<sup>11</sup> AER, Victorian Gas Distribution Business Comparative Performance Report 2012 (February 2014)

However, this reporting was not done across all regulated businesses in all years.

In reporting this information, we identified a number of challenges that impacted on the reliability of the information we reported. These included data deficiencies and a lack of uniformity in data between entities (for example, due to different approaches by businesses to the allocation of interest and tax expenses).

Since the implementation of the *Better Regulation* framework our analysis and the data collection requirements have become more consistent. This increasing consistency now gives us an opportunity to revisit performance reporting in general and financial performance (profitability) reporting specifically.

## 4 McGrathNicol scoping study

Earlier this year, we engaged McGrathNicol to prepare a scoping study on relevant measures of profitability for regulated electricity and gas.<sup>12</sup> As part of the scoping study McGrathNicol was required to:

- identify alternative measures that provide meaningful insights on the earnings and profitability of the electricity and gas businesses
- discuss the advantages and disadvantages of each measure
- describe the measures in terms of standard financial reporting concepts
- specify the data requirements to develop the measures
- review the AER's data sets to determine the suitability of the data for the identified measures and any new data required for the measures.

McGrathNicol completed its scoping study in June 2017. Table 1 presents the range of measures identified by McGrathNicol and the formulae for calculating them.

**Table 1: Potential profitability measures and method of calculation**

Profitability measure	Proposed formula for calculation
Return on Assets (EBIT)	EBIT / RAB or total assets
Return on Assets (net profit after tax)	Net profit after tax / RAB or total assets
Return on Assets (operating cash flow)	Operating cash flow / RAB or total assets
Return on non-current assets	EBIT / non-current assets
Return on capital employed	EBIT / (total assets less current liabilities)
Return on invested capital	Net profit after tax / the book value of debt and equity less cash and cash equivalents
Return on equity	Net profit after tax / total equity
Economic profit <sup>13</sup>	EBIT – pre-tax WACC x (total assets (or RAB)); or EBIT – pre-tax WACC x (total assets (or RAB) – current liabilities)
Net profit margin	Net profit after tax / total regulated revenue
Operating profit margin	EBIT / total regulated revenue
IRR	The IRR is the discount rate that results in a net present value of zero for an asset or project. The IRR is the actual economic return that is earned by the asset or project over its life.
Earnings per share and earnings yield	Earnings per share is calculated as Net profit after tax / number of shares issued. Earnings yield is calculated as Earnings per share / share price.
Operating profit per customer	EBIT / total customer number
RAB multiples	Enterprise Value / RAB

<sup>12</sup> McGrathNicol *Review of measures of financial performance that could be applied to the Electricity and Gas businesses the AER regulates – Final Report – 15 June 2017.*

<sup>13</sup> We note that there are different approaches to defining economic profit from an accounting and economic perspective. McGrathNicol have taken an accounting approach to calculating economic profit. We consider this an appropriate approach for this purpose.

Once it identified potential measures, McGrathNicol then assessed the measures against two objectives and a number of criteria in order to determine their appropriateness. The objectives and criteria were developed in consultation with the AER.

The objectives of the measures were to:

- measure the actual profitability of the regulated entity;
- allow the AER to compare the actual profitability of the regulated entity to:
  - the allowed return on equity from its regulatory determination;
  - actual profit of other regulated entities; and
  - actual profit of other businesses operating in the Australian economy.

The assessment criteria were:

- The measure is based on clear concepts and able to be calculated consistently over time
- The measure can be calculated without the need for manipulation of data or assumptions
- The measure is generally accepted and easily understood by those without a financial background
- The measure is suited to the characteristics of the industry (e.g. capital intensive, long lived assets, regulated revenue and returns, etc.)
- The measure can be used to compare across the sector and with other businesses in the broader economy.

Based on its assessment of the appropriateness of the financial performance measures, McGrathNicol found that the Return on Assets (EBIT) measure strongly met all criteria. It also found that a number of other profitability measures may also be appropriate, including:

- Return on Equity
- Operating profit per customer / connection
- Economic profit.

McGrathNicol's review of the appropriateness of the measures against the objectives and criteria indicated that performance measures using earnings before interest and tax (EBIT) were the most appropriate for measuring the profitability of electricity and gas network businesses. EBIT is the difference between operating revenues and operating expenses, including all expenses except interest and income tax. Interest and tax may differ significantly between businesses depending on the amount of debt funding and the business ownership structure, limiting the comparability of profitability between businesses. Therefore, McGrathNicol considered that EBIT provided a better comparison to other businesses than other measures.

McGrathNicol also suggested using a range of measures as that can highlight different aspects of profitability.

We have published the McGrathNicol scoping study with this discussion paper.

## 5 Preferred measures and data requirements

### 5.1 AER's preferred profitability measures

We generally support McGrathNicol's conclusions regarding the preferred profitability measures.<sup>14</sup> Our view reflects their use of criteria to assess the range of measures identified. The criteria allow for objective consideration of the measures, informed by their sound understanding of financial reporting arrangements.

We consider return on assets (EBIT) would be an appropriate profitability measure to include in performance reporting as it meets all assessment criteria. We also consider operating profit per customer, return on equity and economic profit, while having some limitations, generally assess well against the assessment criteria and are preferred measures. The use of these measures would be consistent with McGrathNicol's suggestion of using multiple measures to highlight different aspects of profitability.

We also agree with McGrathNicol that the other identified profitability measures have limitations that make them less appropriate when considered against the overall objective and the assessment criteria. These limitations include:

- lack of comparability both within and outside the sector
- the impact of tax treatments or the entities financing structure
- complexity.

#### Questions:

1. **Do you agree with the preferred profitability measures? If not, what other measures do you consider should be reported by the AER and why?**
2. **Do you agree the five assessment criteria used by McGrathNicol to assess the profitability measures are appropriate? If not, what alternative criteria should be used?**

### 5.2 Data requirements to support measures

As noted previously, one of the key limitations to reporting on the profitability of network businesses has been the lack of relevant data. In order to calculate the preferred profitability measures, we would require the following data:

- Return on Assets
  - Earnings before interest and tax (EBIT)
  - Regulated asset base (RAB)

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<sup>14</sup> While the McGrathNicol report has provided the method to calculate the profitability measures from both regulatory and statutory accounts, our focus is on the regulatory reporting of profitability. We note there are substantial differences between the regulatory and statutory accounts and consider that it may be misleading to compare the profitability of electricity and gas network businesses on a regulatory and statutory basis.

- Return on Equity
  - Net profit after tax (NPAT)
  - Total equity
  
- Economic profit
  - Earnings before interest and tax (EBIT)
  - pre-tax weighted average cost of capital (WACC)
  - total assets
  
- Operating profit per customer
  - Earnings before interest and tax (EBIT)
  - Customer numbers.

We currently collect some, but not all, of the required data through our annual reporting requirements. Therefore, in order to report on the preferred profitability measures we need additional data.

For electricity businesses, the income statement contained in our annual reporting requirements provides both EBIT and NPAT. However, we do not currently require an annual balance sheet, which would report total equity and total asset data. Therefore, to calculate the return on assets, return on equity or economic profit measures, the AER would need to include a balance sheet in its annual data collection from electricity businesses.

For gas distribution and transmission businesses, the available data is more limited. While we previously collected annual data for gas distribution businesses, this arrangement has lapsed and has not yet been reinstated. We have also not previously required annual reporting for gas transmission businesses. To calculate the measures for gas businesses, annual reporting requirements would need to include both an income statement and a balance sheet.

We intend to adopt a uniform approach to the income statement and balance sheet data requirements for all regulated businesses. We will also be updating our RIN guidelines and templates, providing a clear description of the data and reporting requirements. A uniform approach should facilitate comparison of the regulated business' profitability measures over time, between the regulated businesses and across industries.

**Questions:**

- 3. Do you agree that the identified data is required to develop the preferred profitability measures?**
  
- 4. If you consider other profitability measures should be reported, what data is required to support those measures?**
  
- 5. Do you consider we should use the same measures and data for all regulated businesses, or should we adopt different measures for different sectors (electricity / gas) or different segments (distribution / transmission) of the energy sector?**

### 5.3 Other possible measures of financial performance

In addition to profitability ratios, other financial ratios such as liquidity ratios, financing ratios and activity ratios can also illustrate aspects of the financial performance of a business. They also enable comparison across organisations of different size, within and across industries, and/or with other specific benchmarks. In addition, financial performance over time can be evaluated using trends in these ratios.

Given consumers specific concerns around the profitability of the network businesses, we intend to focus our reporting of financial performance on profitability. However, we are interested in views on whether the reporting of other measures of financial performance would be useful to stakeholders.

**Question:**

- 6. In addition to profitability measures, should we report other measures of financial performance? If so, how would these other measures contribute to the achievement of the NEO or NGO?**

## 6 Consultation process and timetable

We are interested in your views on the issues raised in this discussion paper. Stakeholders are invited to make written submissions to the AER in response to the questions raised in this paper by 8 December 2017.

Taking into consideration the views of stakeholders from the public consultation, we will publish a draft decision on the profitability measures we propose to apply in our performance reporting in February 2018. The draft decision will also include our views on the data required to develop those measures.

Stakeholders will have the opportunity to comment on the draft decision, through written submissions, in March 2018, before we publish our final decision on the profitability measures and data requirements in May 2018. Table 2 sets out the indicative dates for our consultation.

**Table 2: Indicative timetable for consultation process**

Publish discussion paper	<b>8 November 2017</b>
Submissions on the discussion paper due	<b>8 December 2017</b>
Publish a draft decision	<b>February 2018</b>
Public forum on draft decision (if required)	<b>mid-February 2018</b>
Submissions on the draft decision due	<b>March 2018</b>
Publish final decision	<b>May 2018</b>