# FINAL DECISION
# ActewAGL distribution determination
# 2015−16 to 2018−19

# Attachment 20 – Analysis of financial viability

April 2015

AUSTRALIAN ENERGY REGULATOR

Inquiries about this publication should be addressed to:

Australian Energy Regulator
GPO Box 520
Melbourne Vic 3001

Tel: (03) 9290 1444
Fax: (03) 9290 1457

Email: AERInquiry@aer.gov.au

AER reference: 52254

# Note

This attachment forms part of the AER's final decision on ActewAGL's revenue proposal 2015–19. It should be read with all other parts of the final decision.

The final decision includes the following documents:

Overview

Attachment 1 - Annual revenue requirement

Attachment 2 - Regulatory asset base

Attachment 3 - Rate of return

Attachment 4 - Value of imputation credits

Attachment 5 - Regulatory depreciation

Attachment 6 - Capital expenditure

Attachment 7 - Operating expenditure

Attachment 8 - Corporate income tax

Attachment 9 - Efficiency benefit sharing scheme

Attachment 10 - Capital expenditure sharing scheme

Attachment 11 - Service target performance incentive scheme

Attachment 12 - Demand management incentive scheme

Attachment 13 - Classification of services

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Attachment 18 - Connection methodology

Attachment 19 - Pricing methodology

Attachment 20- Analysis of financial viability

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# Shortened forms

| Shortened form | Extended form |
|---|---|
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| augex | augmentation expenditure |
| capex | capital expenditure |
| CCP | Consumer Challenge Panel |
| CESS | capital expenditure sharing scheme |
| CPI | consumer price index |
| DRP | debt risk premium |
| DMIA | demand management innovation allowance |
| DMIS | demand management incentive scheme |
| distributor | distribution network service provider |
| DUoS | distribution use of system |
| EBSS | efficiency benefit sharing scheme |
| ERP | equity risk premium |
| Expenditure Assessment Guideline | Expenditure forecast Assessment Guideline for Electricity Distribution |
| F&A | framework and approach |
| MRP | market risk premium |
| NEL | national electricity law |
| NEM | national electricity market |
| NEO | national electricity objective |
| NER | national electricity rules |
| NSP | network service provider |
| opex | operating expenditure |
| PPI | partial performance indicators |
| PTRM | post-tax revenue model |
| RAB | regulatory asset base |
| RBA | Reserve Bank of Australia |
| repex | replacement expenditure |
| RFM | roll forward model |

| Shortened form | Extended form |
|---|---|
| RIN | regulatory information notice |
| RPP | revenue and pricing principles |
| SAIDI | system average interruption duration index |
| SAIFI | system average interruption frequency index |
| SLCAPM | Sharpe-Lintner capital asset pricing model |
| STPIS | service target performance incentive scheme |
| WACC | weighted average cost of capital |

# 20 Analysis of financial viability

This attachment sets out further detail of our analysis of financial viability. In particular, it details the cash flow analysis we undertook to assess the impact of our decisions on ActewAGL's financial viability. This attachment details our analysis and conclusions, including discussion of the key assumptions.

Based on our analysis, we are not persuaded that a service provider with benchmark gearing in ActewAGL's proposed circumstances would face financial risks that would be likely to threaten its ongoing financial viability.

## 20.1 Background

In its revised proposal, ActewAGL raised issues that related to financial viability. It has raised this material separately in the context of submissions on opex and the return on debt. Specifically, ActewAGL submits that the effect of the base year opex reduction will not achieve the NEO, on the basis that they have "a deleterious impact on quality, reliability, safety and security".[1] It further submits that "the AER's focus on short term productive and allocative efficiency results in an unsustainably low opex allowance which is contrary to the NEO and long term interests of consumers". Its report by CEPA submits that it is implicit in the NEO that the AER should have regard to the impact of its decisions on the service provider's financial viability.[2] Specifically, the material included:

- a report from David Newbury arguing that sizeable opex reductions in a short period of time would negatively impact the ongoing financeability of a service provider in ActewAGL's position and its viability
- analysis by CEG suggesting that our draft decision would result in ActewAGL having its implied credit rating downgraded.

Neither the NEL nor the NER include an explicit obligation requiring us to consider the impact of our determination on the viability of the service provider in its actual circumstances. Our task is to determine the revenue that a service provider can recover from its customers with reference to what is the efficient and prudent level of expenditure. The service provider's actual ownership circumstances and the financial structure of its shareholders are not factors that we are required to consider in fulfilling our task under the NEL or the NER. To the extent that ActewAGL's practices result in costs that are above efficient levels, we consider that it would not be in the long term interests of consumers for ActewAGL to recover these costs from its customers.

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1 ActewAGL, *Revised regulatory proposal*, January 2015, p. 205.

2 CEPA, *Benchmarking and setting efficiency targets for the Australian DNSPs: ActewAGL distribution*, January 2015, p. 51.

Ofgem has previously considered this issue when it developed its financeability policy. Ofgem, observed that:[3]

> "It is also in present and future consumers' interests that the regulatory framework does not provide excess returns, reward inefficiency or effectively "bail out" a network company that has encountered financial difficulty as a result of its own actions (or inaction); for example because of an inappropriate financial structure or poor management. To do so would weaken or even remove the disciplines that capital markets place on all companies, reducing or removing the effectiveness of the incentives we place on network companies under the regulatory regime to the detriment of consumers. The primary responsibility for the financial integrity of a network company lies firmly with that company's management and owners."

We are satisfied that a revenue allowance that meets the requirements of the rules will provide for the service provider, acting as a prudent operator with efficient costs, using a realistic expectation of demand and cost inputs, with the revenue it would require to operate viably. In doing so, we are satisfied that it would not have "a deleterious impact on quality, reliability, safety and security" for the reasons set out in the opex attachment. However, to the extent that a service provider departs from such expenditure levels, it may be at greater financial risk. Since ActewAGL submitted material from consultants relating to financial viability, we have considered it and the material put forward in support of its concerns. ActewAGL's consultants have not been specific about what they mean by the terms financeability or financial viability. In our analysis, we have considered whether a service provider with the benchmark level of gearing in ActewAGL's proposed circumstances would be at material risk of insolvency. We consider this to be a reasonable standard to test financial viability. We undertook this analysis using our PTRM to model ActewAGL's cash flows under a number of different scenarios. We chose and generated these scenarios for the reasons set out in Table 20-1. We are satisfied that a service provider with the benchmark level of gearing in ActewAGL's proposed circumstances would not be at material risk of insolvency because:

- ActewAGL is subject to a stable regulatory environment that is favourable for capital raising.[4]
- we are not persuaded by CEG's analysis of the likely impact of our decision on ActewAGL's credit rating. We discuss this analysis in Attachment 3.
- we are satisfied that our PTRM cash flow analysis supports this conclusion.

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[3] Ofgem, *Regulating Energy Networks for the Future: RPI-X@20—Emerging Thinking – Embedding financeability in a new regulatory framework*, January 2010, p. 4.

[4] For example , RARE infrastructure submitted that "[t]here are many characteristics of the Australian Regulatory framework that makes its energy network potentially attractive investments". RARE Infrastructure, *Letter to the AER*, 13 February 2015. Similarly, Moody's observe

Further, the scope and assumptions of our analysis exclude consideration of the favourable characteristics and protections inherent in the regulatory regime, or of ActewAGL's actual circumstances. We discuss these factors in section 20.2.

We undertook a similar analysis for Ausgrid, Endeavour Energy and Essential Energy. For that analysis we engaged RSM Bird Cameron to review our approach. RSM Bird Cameron was not available to review our analysis for ActewAGL. However, the analysis we present in this attachment draws on RSM Bird Cameron's advice on our methodology. RSM Bird Cameron's report has been published with the decision for the NSW distribution network service providers (Ausgrid, Endeavour Energy, Essential Energy).

## 20.2 The three scenarios

We undertook analysis of three scenarios. In all cases, these scenarios test the impact on financial viability if ActewAGL were to:[5]

- receive revenue in line with our determination
- face costs in line with its revised proposal prior to the start of the 2014 to 2019 period.

The difference between the scenarios is the extent to which ActewAGL's costs converge towards our determination revenue over the 2014 to 2019 period. Specific details of the scenarios are set out in Table 20-1, below. The scenario descriptions in the table refer to:

- Debt convergence—over the regulatory period, the revenue and costs relating to debt (interest payments) will converge. This is because we update 10 per cent of the cost of debt each year in line with our trailing average approach. We largely agree with ActewAGL on how this update will be calculated. Consequently, as each year passes the difference between the amount ActewAGL sought for interest costs in its revised proposal and our regulatory allowance will converge. Eventually, in 10 years, the difference converges to zero. As this brings revenue and costs closer together, it reduces the risks to the financial viability of the service provider.
- Reductions in opex—in scenario 1, we assume ActewAGL spends the total opex it proposed in its revised proposal, regardless of the revenue it receives. This has a substantially negative impact on the key indicators of financial viability. However, ActewAGL has a financial incentive to reduce its opex costs. We have therefore tested the sensitivity of the conclusions to the potential for opex efficiency savings. Scenario 2 and scenario 3 test the outcomes where the service provider is able to reduce its opex. Any savings in opex improve ActewAGL's financial performance. We discuss this in greater detail in section 20.2.2.

[5] For the purposes of this analysis we examined ActewAGL's regulated distribution revenue and costs. This is the majority of ActewAGL's revenue and costs.

- The hybrid tax calculation—this refers to our calculation of tax to reflect the actual revenue and tax expenses that are assumed in the scenarios below. This variation allows us to more accurately reflect the short term tax obligation faced by ActewAGL.

### Table 20-1 Revenue and cost inputs for the four scenarios

| | Scenario 1 | Scenario 2 | Scenario 3 |
|---|---|---|---|
| Revenue | Smoothed revenue from the indicative final decision including debt convergence. | Smoothed revenue from the indicative final decision including debt convergence | Smoothed revenue from the indicative final decision including debt convergence |
| Costs | All costs from revised proposal except for:<br>• hybrid tax calculation<br>• debt convergence | Based on revised proposal except for:<br>• hybrid tax calculation<br>• debt convergence<br>• 10 % per annum reductions between forecast opex costs and benchmark efficient opex allowance | Based on revised proposal except for:<br>• hybrid tax calculation<br>• debt convergence<br>• 20 % per annum reductions between forecast opex costs and benchmark efficient opex allowance |
| Comment | Worst case scenario | More favourable to ActewAGL than Scenario 1. This scenario reflects partial efficiency savings by ActewAGL to reduce the difference between its proposed opex costs and our final decision opex determination. | More favourable to ActewAGL than Scenario 2. This scenario reflects faster opex efficiency savings than scenario 2. In combination, scenarios 2 and 3 illustrate the sensitivity of the outcome to the ability to make efficiency savings. |

## 20.2.1 Results of the scenarios

We summarise our conclusions in respect of each scenario in Table 20-2, below. Our detailed conclusions are set out in section 20.2.3. In assessing the conclusions, we have applied the analytical model recommended by RSM Bird Cameron in its review for Ausgrid, Endeavour Energy and Essential Energy. This analytical model includes two key metrics: operating cash flows excluding regulatory depreciation and cash flows after accounting for ActewAGL's proposed capex program. It presents these post-capex cash flows prior to and after external equity raised, and both of those subtotals including and excluding regulatory depreciation.

### Table 20-2 Summary of conclusions

| Scenario | Conclusions |
|---|---|
| 1 | ActewAGL generates negative operating cash flows excluding the regulatory depreciation allowance.<br>It generates positive cash flows prior to external equity raising if it uses a significant proportion of its regulatory depreciation allowance.<br>It generates positive cash flows after external equity raising if it uses portions of its regulatory depreciation allowance |

| | |
|---|---|
| 2 | ActewAGL generates positive operating cash flows excluding the regulatory depreciation allowance.<br>It generates positive cash flows prior to external equity raising if it uses a significant proportion of its regulatory depreciation allowance.<br>It generates positive cash flows after external equity raising if it uses portions of its regulatory depreciation allowance |
| 3 | ActewAGL generates positive operating cash flows excluding the regulatory depreciation allowance.<br>It generates positive cash flows prior to external equity raising if it uses portions of its regulatory depreciation allowance.<br>It generates positive cash flows after external equity raising both including and excluding its regulatory depreciation allowance |

Source: AER

Based on the above scenarios and the assumptions provided, we are not persuaded that that ActewAGL faces material risk of insolvency under any of the three scenarios. Specifically, ActewAGL generates positive operating cash flows under scenarios 2–3. Where it cannot raise any external equity, it is cash flow positive under scenarios 2–3.

In addition, our analysis was based on limitations of scope and assumptions that do not reflect a series of relevant factors. We discuss these factors below. They suggest ActewAGL is even less likely to face threats to its financial viability than presented in the three scenarios above. These factors include:

- the cash flow analysis does not address the impact of ActewAGL's ownership, and whether that ownership is favourable or otherwise for capital raising.
- the cash flow analysis assumes zero starting cash balance. Any positive starting cash balance would result in more favourable outcomes for ActewAGL.
- the cash flow analysis does not include any assumptions about the service provider's ability to defer capex.
- the cash flow analysis does not address fundamental questions of revenue certainty that distinguish regulated firms from unregulated firms. Unlike unregulated firms, ActewAGL faces predictable, stable revenue regardless of movements in its underlying demand.
- Significantly, ActewAGL's revenue allowance will be updated each year to incorporate current market rates on its debt portfolio. To some extent, the analysis addresses the effects of annually updating debt revenue through our debt convergence assumptions. However, our approach provides ActewAGL with an ongoing shield from interest rate risk regardless of market circumstances, to the extent it raises debt. Specifically, if benchmark debt costs rise as observed in the market, ActewAGL's revenue allowance will rise commensurately. ActewAGL is therefore shielded from interest rate risk compared to an un-regulated private sector business.
- The value of ActewAGL's assets is protected within the regulatory asset base (RAB), and a return on capital for assets within the RAB is set periodically under a

well-established regulatory regime. This allows ActewAGL to expect to generate a benchmark return on capital in the RAB and also to recover the face value of its investments over time through a stable and predictable regulatory depreciation allowance. In the short term, equity holders may face relatively lower returns due largely to opex inefficiencies and the return on debt transition. However, in the medium term as the service provider achieves efficiency gains, those equity holders can expect to predictably receive the benchmark return on equity.

In line with these observations, the credit rating agency Moody's observed that, 'regulatory environment and asset ownership model' (Factor 1):[6]

> "[M]any networks are shown as outliers for Factor 1 principally reflecting the high quality regulatory regimes where they operate, which reduces overall business risk. Such regulatory frameworks tend to be well established, provide timely cost recovery and have de-coupling mechanisms that limit volume risk. This means that scores for these sub-factors can often be “Aaa” or “Aa” while issuers themselves are rated in the “A” or “Baa” range. This applies particularly to networks in developed countries with strong regulation, e.g. AusNet Services and Powercor Australia LLC (regulated in Australia by the AER)"

Taking account of these broader characteristics and protections, we are not persuaded that ActewAGL faces risks that threaten its financial viability.

### 20.2.2 Key assumptions

This section includes further detail on the material assumptions in our analysis. Specifically:

- debt convergence—included in all scenarios
- opex efficiency gains— included in scenarios 2 and 3
- hybrid tax calculation—included in all scenarios
- interpretation of the regulatory depreciation allowance.

#### Debt convergence

One of the largest differences between ActewAGL's revised proposal and our draft and final decisions is the approach to transition into the trailing average portfolio return on debt. Specifically:

- ActewAGL proposed an immediate transition. This means that its starting (2014–15) portfolio is based on an average of the past 10 years of return on debt estimates.
- Our decision commences with an on-the-day rate for existing debt and a 10 year transition to the trailing average return on debt for new debt. This means that

[6] Moody's Investors Service, *Rating methodology: Regulated electric and gas networks*, 25 November 2014, p. 34.

ActewAGL's starting (2014–15) portfolio is equal to the annual estimate of the return on debt within ActewAGL's nominated averaging period in that year.

Due to the difference in approaches, the starting difference in revenue between ActewAGL's proposed approach and our decisions is substantial. However, under ActewAGL's proposed approach and our decision, the return on debt portfolio will be updated each year to include 10 per cent weight on each subsequent year's estimate. This will impact both the revenue received by ActewAGL and the costs it faces. Consequently, once the full transition is complete in 10 years ActewAGL's cost of debt and allowed debt revenue should correspond, excluding relatively minor differences in the implementation of annual estimates of the return on debt.

Therefore, we consider it is a more realistic assumption to account for this debt convergence when considering ActewAGL's financial viability. To do so, we have included consistent forward estimates of the annual return on debt to model the progression of both our decision portfolio return on debt and ActewAGL's proposed portfolio. The calculations for this portfolio are set out in Table 20-3.

### Table 20-3 Debt convergence (per cent)

| | 2014–15 | 2015–16 | 2016–17 | 2017–18 | 2018–19 |
|---|---|---|---|---|---|
| Annual estimate of the return on debt | 6.07 | 4.44 | 4.44[a] | 4.44[a] | 4.44[a] |
| | | | | | |
| ActewAGL's portfolio | 7.96[b] | 7.61 | 7.26 | 6.90 | 6.55 |
| AER portfolio | 6.07 | 5.91 | 5.74 | 5.58 | 5.42 |
| Difference between portfolios | -1.89 | -1.70 | -1.51 | -1.32 | -1.13 |

(a) For the forward estimates, we have used the most recent annual estimate held constant from 2016–17 to 2018–19. Regardless of what these inputs are, the portfolios will converge.

(b) ActewAGL proposed a 10 year average of 7.96. For simplicity, we have assumed the annual estimate for each past year is also equal to 7.96. Therefore, each year through the regulatory control period, the annual estimate replaces 1 year (10 per cent) at 7.96 per cent.

We note that there are also differences between ActewAGL's proposed implementation of the annual estimates for the return on debt and our draft decision. These relate primarily to the choice of third party data series. Specifically, ActewAGL has proposed to rely entirely on the extrapolated RBA curve, whereas our draft and final decisions adopts a simple average of the extrapolated RBA curve and the extrapolated BVAL curve. However, we have excluded these differences from our analysis because the difference between approaches is relatively less material.

## Opex efficiency gains

In scenario 1, we have assumed the service provider will spend its revised proposal opex forecast and will not make any efficiency savings. However, we expect that ActewAGL will have a strong incentive to make efficiency gains where its forecast expenses are above the opex allowance in the final decision. Therefore, we have modelled additional scenarios where the service provider is able to reduce the difference between:

- its revised proposal opex, and
- our final decision on the opex that would be faced by the benchmark efficient entity.

In scenario 2, we assume ActewAGL reduces the difference between its proposed opex and our (indicative) final decision by 10 per cent per year. This means it would reach our opex target in 10 years. In scenario 3, we assume ActewAGL reduces the difference between its proposed opex and our (indicative) final decision by 20 per cent per year. This means it would reach our opex target in 5 years.

We have not attempted to determine which of scenarios 1–3 is the most plausible, but have used the results to assess the sensitivity of the conclusions to whether the service provider can improve its opex efficiency.

## Table 20-4 Opex efficiency gains ($ million, 2013–14)

| Item | | 2014–15 | 2015–16 | 2016–17 | 2017–18 | 2018–19 |
|---|---|---|---|---|---|---|
| 1 | AER indicative final decision | 38.4 | 39.4 | 39.9 | 40.7 | 41.9 |
| 2 | ActewAGL revised proposal | 61.0 | 60.2 | 58.6 | 60.1 | 61.1 |
| 3 | Difference between costs and efficient baseline[a] | 22.6 | 20.8 | 18.7 | 19.4 | 19.2 |
| 4 | Difference with 50% efficiency gains (10% p.a.)[b] | 20.3 | 16.7 | 13.1 | 11.7 | 9.6 |
| 5 | Difference with 100% efficiency gains (20% p.a.)[c] | 18.1 | 12.5 | 7.5 | 3.9 | 0.0 |
| | | | | | | |
| 6 | Opex costs with 50% efficiency gains[d] | 58.7 | 56.0 | 53.0 | 52.3 | 51.5 |
| 7 | Opex costs with 100% efficiency gains[e] | 56.5 | 51.9 | 47.4 | 44.5 | 41.9 |

(a) This is equal to item 2 less item 1

(b) This is equal to item 3 reduced by 10 per cent per year. For example: 20.3 = 22.6 * (100-10)%. Then, 16.7 = 20.8 * (100-10-10)% etc.

(c) This is equal to item 3 reduced by 20 per cent per annum using the approach as described in note (c).

(d) This is equal to item 1 + item 4

(e) This is equal to item 1 + item 5.

## Hybrid tax allowance

The PTRM includes calculations of the benchmark tax allowance. These are based on the tax revenues and tax expenses generated within the building blocks multiplied by the benchmark rate of corporate taxation, less the value of imputation credits. However, to more accurately model the short term financial obligation imposed by tax, we have made the following adjustments:

- On the revenue side - rather than the internally generated revenue within the service providers' revised proposal PTRMs, we have used the smoothed revenue from our decision to calculate tax
- On the revenue side - further, while redeemed imputation credits ultimately provide a return to equity holders, they do so after the service provider has had to pay the face value of tax. Therefore, we have excluded the value of imputation credits from the tax allowance cash flows estimate. This has the effect of understating the final return to equity holders in years where the service providers pay tax.
- On the expenditure side - however, to recognise the costs that the service provider proposes to face, we have used its proposed tax expenses.

## Interpretation of the regulatory depreciation allowance

Under the building block revenue framework, service providers recover a regulatory depreciation allowance. This allowance returns to the service provider the face value of its capital investment over time. This can then be:

- used to pay the face value of debt as it is retired
- distributed to equity holders to return the face value of their initial investment.

However, the service provider has flexibility to use its depreciation allowance to fund short term costs. Where the service provider faces cash flow issues, it could therefore use the depreciation allowance in the short term to manage these issues. We advised are satisfied that this was a reasonable assumption to use in this analysis.

In line with the recommendations made in RSM Bird Cameron's analytical model used to assess the NSW DNSPs, we have estimated both operating cash flows and cash flows prior to external equity raised to exclude the regulatory depreciation allowance. We have considered in our conclusions the extent to which ActewAGL would need to use a proportion of its regulatory depreciation allowance to fund its short term financial obligations.

### 20.2.3 Detailed results

The following tables set out the detailed results of our cash flow analysis.

## Table 20-5 Scenario 1: Cash-flow analysis ($million, nominal)

| Scenario 1 ActewAGL | 2014–15 $'million | 2015–16 $'million | 2016–17 $'million | 2017–18 $'million | 2018–19 $'million | Total $'million |
|---|---|---|---|---|---|---|
| **Revenue** | **145** | **122** | **121** | **122** | **122** | **631** |
| Less regulatory depreciation allowance | (27) | (31) | (31) | (33) | (33) | (154) |
| Less opex | (63) | (64) | (64) | (67) | (70) | (329) |
| Less interest | (33) | (34) | (33) | (32) | (32) | (164) |
| Less tax | (8) | - | - | - | - | (8) |
| **Operating cash flows excluding Regulatory Depreciation Allowance** | **14** | **(7)** | **(7)** | **(11)** | **(13)** | **(24)** |
| Less capex | (67) | (55) | (55) | (54) | (61) | (292) |
| Plus external debt raised | 40 | 33 | 33 | 32 | 36 | 175 |
| **Cash flows prior to external equity raised excluding regulatory depreciation** | **(13)** | **(29)** | **(29)** | **(32)** | **(37)** | **(140)** |
| Plus external equity raised | 27 | 22 | 22 | 22 | 24 | 117 |
| Less equity raised costs | (1) | (1) | (1) | (1) | (1) | (4) |
| **Cash flow after external equity raised excluding regulatory depreciation** | **13** | **(7)** | **(8)** | **(12)** | **(14)** | **(27)** |
| **Cash flows prior to external equity raised excluding regulatory depreciation** | **(13)** | **(29)** | **(29)** | **(32)** | **(37)** | **(140)** |
| Add regulatory depreciation allowance | 27 | 31 | 31 | 33 | 33 | 154 |
| **Cash flows prior to external equity raised including regulatory depreciation** | **14** | **2** | **2** | **0** | **(4)** | **14** |
| Plus external equity raised | 27 | 22 | 22 | 22 | 24 | 117 |
| Less equity raising costs | (1) | (1) | (1) | (1) | (1) | (4) |
| **Cash flows after external equity raised including regulatory depreciation** | **40** | **23** | **24** | **21** | **19** | **127** |

Source: AER analysis

## Table 20-6 Scenario 2: Cash-flow analysis ($million, nominal)

| Scenario 1 ActewAGL | 2014–15 $'million | 2015–16 $'million | 2016–17 $'million | 2017–18 $'million | 2018–19 $'million | Total $'million |
|---|---|---|---|---|---|---|
| **Revenue** | **145** | **122** | **121** | **122** | **122** | **631** |
| Less regulatory depreciation allowance | (27) | (31) | (31) | (33) | (33) | (154) |
| Less opex | (61) | (60) | (58) | (59) | (59) | (297) |
| Less interest | (33) | (34) | (33) | (32) | (32) | (164) |
| Less tax | (9) | (0) | - | - | - | (9) |
| **Operating cash flows excluding Regulatory Depreciation Allowance** | **16** | **(3)** | **(1)** | **(2)** | **(2)** | **8** |
| Less capex | (67) | (55) | (55) | (54) | (61) | (292) |
| Plus external debt raised | 40 | 33 | 33 | 32 | 36 | 175 |
| **Cash flows prior to external equity raised excluding regulatory depreciation** | **(11)** | **(25)** | **(23)** | **(24)** | **(26)** | **(109)** |
| Plus external equity raised | 27 | 22 | 22 | 22 | 24 | 117 |
| Less equity raised costs | (1) | (1) | (1) | (1) | (1) | (5) |
| **Cash flow after external equity raised excluding regulatory depreciation** | **15** | **(3)** | **(2)** | **(3)** | **(3)** | **(4)** |
| **Cash flows prior to external equity raised excluding regulatory depreciation** | **(11)** | **(25)** | **(23)** | **(24)** | **(26)** | **(109)** |
| Add regulatory depreciation allowance | 27 | 31 | 31 | 33 | 33 | 154 |
| **Cash flows prior to external equity raised including regulatory depreciation** | **16** | **6** | **8** | **9** | **7** | **45** |
| Plus external equity raised | 27 | 22 | 22 | 22 | 24 | 117 |
| Less equity raising costs | (1) | (1) | (1) | (1) | (1) | (4) |
| **Cash flows after external equity raised including regulatory depreciation** | **42** | **27** | **30** | **30** | **30** | **159** |

Source: AER analysis

## Table 20-7 Scenario 3: Cash flow analysis ($million, nominal)

| Scenario 1 ActewAGL | 2014–15 $'million | 2015–16 $'million | 2016–17 $'million | 2017–18 $'million | 2018–19 $'million | Total $'million |
|---|---|---|---|---|---|---|
| **Revenue** | **145** | **122** | **121** | **122** | **122** | **632** |
| Less regulatory depreciation allowance | (27) | (31) | (31) | (33) | (33) | (154) |
| Less opex | (59) | (55) | (52) | (50) | (48) | (265) |
| Less interest | (33) | (34) | (33) | (32) | (32) | (164) |
| Less tax | (9) | (2) | (0) | (0) | (2) | (13) |
| **Operating cash flows excluding Regulatory Depreciation Allowance** | **17** | **0** | **5** | **6** | **7** | **36** |
| Less capex | (67) | (55) | (55) | (54) | (61) | (292) |
| Plus external debt raised | 40 | 33 | 33 | 32 | 36 | 175 |
| **Cash flows prior to external equity raised excluding regulatory depreciation** | **(10)** | **(22)** | **(17)** | **(16)** | **(17)** | **(81)** |
| Plus external equity raised | 27 | 22 | 22 | 22 | 24 | 117 |
| Less equity raised costs | (1) | (1) | (1) | (1) | (1) | (4) |
| **Cash flow after external equity raised excluding regulatory depreciation** | **16** | **(0)** | **4** | **5** | **6** | **32** |
| **Cash flows prior to external equity raised excluding regulatory depreciation** | **(10)** | **(22)** | **(17)** | **(16)** | **(17)** | **(81)** |
| Add regulatory depreciation allowance | 27 | 31 | 31 | 33 | 33 | 154 |
| **Cash flows prior to external equity raised including regulatory depreciation** | **17** | **9** | **14** | **17** | **16** | **73** |
| Plus external equity raised | 27 | 22 | 22 | 22 | 24 | 117 |
| Less equity raising costs | (1) | (1) | (1) | (1) | (1) | (4) |
| **Cash flows after external equity raised including regulatory depreciation** | **43** | **30** | **36** | **38** | **39** | **187** |

Source: AER analysis