

# Financial risk management practices at Energex

**Report 14: 2015–16**



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April 2016

The Honourable P Wellington MP  
Speaker of the Legislative Assembly  
Parliament House  
BRISBANE QLD 4000

Dear Mr Speaker

**Report to Parliament**

This report is prepared under Part 3 Division 3 of the *Auditor-General Act 2009*, and is titled Financial risk management practices at Energex.

In accordance with s.67 of the Act, would you please arrange for the report to be tabled in the Legislative Assembly.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Andrew Greaves', is written over a light grey rectangular background.

Andrew Greaves  
Auditor-General



# Contents

<b>Summary</b> .....	<b>1</b>
Conclusion .....	2
Weighted average cost of capital (WACC) .....	3
Financial risk management practices .....	5
Recommendations .....	6
Reference to comments .....	6
<b>1. Context</b> .....	<b>7</b>
Revenue determination .....	7
Energex's regulatory proposal process .....	7
Weighted average cost of capital .....	8
Use of WACC at Energex .....	9
Roles and responsibilities .....	11
Legislation and policy frameworks .....	12
Functions of a treasury unit .....	12
Rationale for the audit .....	13
Audit objective, method and cost .....	14
Entities subject to this audit .....	14
Report structure .....	14
<b>2. Weighted average cost of capital</b> .....	<b>15</b>
Introduction .....	16
Conclusion .....	16
WACC and the 2015–20 Energex regulatory process .....	16
Use of WACC for revenue forecasts in the SCI and five year corporate plan .....	17
Energex's treasury unit .....	19
Recommendation .....	20
<b>3. Financial risk management</b> .....	<b>21</b>
Introduction .....	22
Conclusion .....	22
Treasury unit internal controls .....	23
Managing financial risks .....	24
Treasury functions .....	25
Recommendations .....	26
<b>Appendix A— Comments</b> .....	<b>28</b>
<b>Appendix B— Glossary</b> .....	<b>32</b>
<b>Appendix C— Methodology</b> .....	<b>33</b>
<b>Appendix D— Regulatory determination process</b> .....	<b>35</b>
<b>Appendix E— Timeline of events</b> .....	<b>36</b>



## Summary

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In September 2015 the Treasurer, the Honourable Curtis Pitt MP, wrote to the Queensland Auditor-General to request a performance audit of the financial risk management practices of Energex Limited (Energex). Energex is the government owned corporation that builds and maintains the network that distributes electricity in South East Queensland.

The Treasurer requested the audit in response to concerns raised by a former Energex employee about board and management governance, risk management and regulatory processes, and from The Senate Environment and Communications References Committee report on the performance and management of electricity network companies.

Energex is bound by federal and state regulations and must also comply with the requirements of its shareholders as directed through the *Government Owned Corporations Act* and other legislation and policies.

Every five years the Australian Energy Regulator (AER) decides the maximum allowable revenue Energex's regulated business can earn, and therefore what prices it can charge to generate that revenue.

In accordance with the National Electricity rules, Energex submits a proposal to the AER with its forecast operational and capital expenses for the next five years. The AER uses this information as part of its regulatory decision (revenue determination), but augments it with its own calculations, and by using feedback through public forums and invitations to comment.

The weighted average cost of capital (WACC) is a key metric for the regulatory pricing decision and, more broadly, for the long-term profitability and sustainability of the enterprise. It is a complex calculation that weighs the cost of its debt and its equity—the two primary sources of finance for Energex—to establish the minimum return it must generate from its asset base to satisfy its creditors, owners and other providers of capital.

In a price-regulated industry a WACC that is inflated may create a perverse incentive to over-invest in assets, and particularly to 'gold plate' assets, because the higher the asset base and the higher the WACC, the greater the potential is to earn more revenue.

In its proposal to the regulator, Energex includes a calculation of its WACC. The AER considers the proposal from Energex but then decides the WACC rate to be used, based on its own methodology and assumptions.

We have assessed whether the WACC used in conjunction with the revenue decision made by the AER was prepared by Energex in accordance with relevant laws and regulations.

Energex also prepares separately an internal WACC calculation to formulate its annual business plan, which it provides to its two shareholding ministers—the Treasurer and the Minister for Main Roads, Road Safety and Ports and Minister for Energy and Water Supply.

Energex has two separate teams calculating these two separate versions of the WACC; one for regulatory and one for non-regulatory purposes.

The former employee who raised the concerns had worked in the Energex treasury unit responsible for calculating the internal WACC for corporate planning purposes. The former employee alleged that Energex management had pre-determined the outcome of the internal WACC, rather than conducting an objective analysis to find the outcome. We examined the effectiveness of Energex's treasury unit, the controls in place, its policies and procedures in managing Energex's financial risks and how they compare to other treasury functions across the industry.

The Treasurer requested that the audit exclude broader energy market issues, such as the role of Energex in the national energy market and the impact on electricity prices. The Queensland Productivity Commission Public Inquiry into Electricity Prices will consider pricing issues.

## Conclusion

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There is no evidence of manipulation or improper behaviour by Energex in relation to the WACC it submitted to the regulator. Energex followed national laws and regulations and acceptable industry practices in the calculation of the WACC included in its submission to the AER for the 2015–20 revenue determination. It took a robust approach to determining its regulatory WACC, including obtaining input from other regulatory market participants and independent expert assessment.

To this extent the allegations made in The Senate Environment and Communications References Committee report on the performance and management of electricity network companies of manipulation of data provided to the AER are not substantiated.

The WACC which Energex submitted to the regulator and the WACC it used for corporate planning purposes differed markedly over time in key respects including in the use of spot and average interest rates, the risk premiums applied and the impact of dividend imputation.

The former employee's allegations on cost of debt data manipulation resulted from management pre-determining a desired WACC outcome for their budget. The motivation for the change in methodology was the significant declines in forecast revenue when the WACC was calculated using spot rates.

The change in methodology had no impact on its actual revenues, as these are based on the AER-approved WACC.

Under the changed methodology, a WACC using historical averages maintained forecast revenues at their existing levels. Energex management took the view that this was a more realistic outcome for their budget.

Energex's change in its WACC methodology for corporate planning followed changing industry practice. Since the time of this decision, the AER has also changed its methodology from using spot rates to using historical averages for the cost of debt component of WACC. This change is reflected in its 2015-20 revenue determination for Energex.

### Energex's treasury risk management practices

At the time of our audit, Energex had limited foreign exchange and commodity price risk and therefore a complex treasury approach to managing these financial risks is not required. Of the limited exposures, most risk comes from procurement contracts. Energex does not currently have any foreign exchange or commodity price hedges in place as the identified exposures are not significant or able to be quantified.

There were several operational control weaknesses identified by the former employee in December 2013. In May 2015, these were investigated and resolved by Energex.

At the time of our audit, we did not identify any significant weaknesses with the Energex treasury unit's risk management process. Energex's treasury unit is effectively managing foreign exchange and commodity price risk, with sound controls and well documented procedures that staff are following.

Treasury's involvement with the procurement area is on an 'as needs' basis driven by when there is a requirement to assess the foreign exchange or commodity price risk from a contract. Treasury could improve its ability to assess and potentially manage this exposure by interacting on a proactive basis with business areas generating these risks.

Energex could strengthen its treasury practices by updating its policies to reflect organisational changes, and could also establish processes to proactively manage financial risk associated with procurement.

## Weighted average cost of capital (WACC)

WACC is used to help make decisions about how best to use capital. At Energex WACC is considered in two major areas:

- as part of the assessment and response to the setting of the WACC by the AER. This is part of the revenue setting process
- for planning and reporting purposes, particularly as part of the process to draft the non-regulatory component of the annual statement of corporate intent (SCI) and five year corporate plan.

Both are delivered to the stakeholder, the Queensland Government.

The WACC generated for the SCI and five year corporate plan includes Energex's current and projected cost of funds. The WACC used to calculate regulated revenue for the period beyond the current regulatory period is legitimately different from the WACC set by the AER.

Figure A below describes the two different WACCs used to estimate regulatory revenue at Energex; who prepares the WACC; and how it is calculated and approved.

**Figure A**  
**WACCs used at Energex**

AER WACC	WACC for estimating beyond current regulatory period
Prepared by: Energex regulatory team	Prepared by: Energex treasury and finance teams
Guidance used: National Electricity Law and Regulations	Guidance used: Internal guidance based on the AER WACC, updated for current market practices
Approved by: Regulatory management committee + Energex Board	Approved by: Energex Board
2010–15 rate: 9.72 per cent 2015–20 rate: 6.01 per cent (updated annually)	2015–18 rate: 8.13 per cent
Used for: determining actual regulatory revenue from customers	Used for: estimating future revenue beyond the current regulatory period in Energex's budget

Source: Queensland Audit Office

Energex also prepares WACCs for its small non-regulated operations, such as metering. The non-regulatory WACCs are prepared according to *Queensland Treasury; Government Owned Corporations—Cost of Capital Principles 2006*. This WACC is different from the WACC used to estimate regulated revenue as it incorporates the risk associated with non-regulated operations and uses a different methodology.

### Regulatory WACC

Part of the regulatory process includes the AER's responsibility to set WACC. To determine the revenue that network businesses in Queensland can base their charges on, the AER forecasts the revenue the business requires to cover its efficient operating and capital costs and provide a commercial return on capital. WACC is a component of the calculation of the forecasted revenue and represents the cost of debt and equity required by a benchmark electricity network business. WACC is calculated according to the methodology published by the AER.

Energex provides submissions on WACC inputs and other regulatory information to the AER. Energex formulates submissions, performs reasonableness testing and responds to AER draft determinations using a regulatory team within the company. The team sources information from many areas within Energex and benchmarks data by involving experts outside of Energex. All submissions are approved by the Energex Board, sub-committee of the board and regulatory management committee.

Energex's process for obtaining the 2015–20 revenue determination from the AER was according to the national electricity law and rule requirements.

### Corporate planning WACC

Energex's financial and non-financial performance targets are included in the annual SCI and five year corporate plan, agreed with the Queensland state government. These targets are monitored by shareholding ministers. The government uses the expected financial flows in the corporate plan, including dividends and taxation, for the state Budget.

Energex's revenue included in these plans is estimated using the regulated WACC, where the estimate is within the current regulatory period. For revenue beyond the current regulatory period, Energex estimates the future regulatory WACC. The future regulatory WACC estimate is based on the AER approved WACC, updated for current market knowledge on key estimates such as risk free rates, market risk premiums and cost of credit, and accepted changes in methodology. An example of a change in methodology is the change by both Energex and the AER to use historical average interest rates rather than a spot, or on-the-day, rate to estimate the cost of debt. The industry generally accepts that historical average rates can provide a better guide to the future than spot rates.

Non-regulated activities are estimated using WACC principles developed by *Queensland Treasury; Government Owned Corporations—Cost of Capital Principles 2006*. Any non-regulated capital expenditure greater than \$20 million across government owned corporations also needs to be approved by shareholding ministers using WACC calculated under these principles.

The principles detail the methodology and key assumptions to be adopted when calculating non-regulatory WACC. The principles have not been updated to incorporate current market assumptions or methodologies since their issue in 2006 and are considered out of date.

### Energex treasury unit WACC analysis

There is no link between the cost of debt work conducted by the former Energex treasury unit employee and the analysis used in submissions to the AER. The evidence shows the analysis on the cost of debt prepared by the treasury unit was used in calculating WACC estimates for periods beyond the current regulatory determination in the five year corporate plan.

The regulatory revenue estimates outside of the regulatory determination period in the previous period's corporate plan (2012–13) were based on a WACC of 8.23 per cent.

For the following year's corporate plan (2013–14), Energex's treasury unit calculated an estimated future regulatory WACC based on a methodology used in previous corporate plans. The outcome based on that methodology was a WACC of 6.93 per cent.

This was not considered reasonable by management as the risk free rate was at an all-time low, and therefore lower than the expected future rate, and market risk premiums had increased during this time.

Energex's treasury unit recommended that management approve a change in calculation methodology to achieve a WACC in the range of 8.0 to 8.5 per cent: a result similar to the previous Energex budget.

The former employee provided a cost of debt to support a WACC in the range requested by management. However, no direct link was found between the work completed by the former employee and the final version of the corporate plan as submitted to the Queensland Government for approval as shown in Figure B.

**Figure B**  
**Cost of debt used in the regulatory WACC and corporate plan compared to the analysis conducted by the former employee**

WACC scenario	Cost of debt	WACC rate per cent
2010–15 AER regulatory WACC	Spot (on-the-day) risk free rate and a credit cost based on published BBB+ bond yields	9.72
2015–20 AER regulatory WACC	Risk free rate and a credit cost based on an average of Reserve Bank of Australian and Bloomberg BBB+ bond yields	6.01
Estimated future regulatory WACC in 2012–13 corporate plan	Spot (on-the-day) rate and a credit cost based on published BBB+ bond yields, updated for the current period's rate	8.23
Estimated future regulatory WACC in 2013–14 corporate plan	Average historical risk free rate and a credit cost based on QTC's BBB+ published bond yields, updated for the current period's rate	8.13
Cost of debt data obtained by previous employee	Credit cost based on a Commonwealth Bank of Australia Fixed Income: Credit Daily Alert dated 13 March 2013, and a rate provided by a US bank from Bloomberg.	8.23

Source: Queensland Audit Office

The data provided by the former employee would have resulted in a rate of 8.23 per cent being used in the corporate plan and higher estimated revenue, rather than the 8.13 per cent actually used.

The changed methodology used by management to calculate the 8.13 per cent is considered by industry to be an acceptable approach to developing WACC. The AER has subsequently updated its methodology for cost of debt to also incorporate historical averaging.

## Financial risk management practices

Financial risk at Energex is limited to the cash, borrowings, receivables and payables. Borrowings of \$6.81 billion at 30 June 2015, represent 88 per cent of this financial risk exposure.

Energex does not currently use derivative hedging instruments and all debt funding is sourced from the Queensland Treasury Corporation (QTC), with QTC arranging debt as part of the Queensland state borrowing program.

In May 2015, Energex addressed the operational control weaknesses raised in December 2013 by the former employee.

At the time of our audit, foreign exchange and commodity price risk at Energex is considered insignificant given the nature and current level of operations. For the activities undertaken, good controls were observed and there are documented procedures that are followed by staff, although some policies are out of date.

Energex currently approaches treasury risk management on an ad-hoc basis when issues arise or business units request support. Instead, Energex could have planned a systematic approach to its treasury activities for potential foreign exchange, credit and commodity price exposures.

Recommendations have been raised with Energex based on our benchmarking with industries that have similar sized operations.

The process for cash forecasting could also be improved through quarterly assessments of monthly forecasts to actual outcomes achieved—reviewing the effectiveness of the forecasting process.

## Recommendations

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We recommend that:

1. Queensland Treasury update the cost of capital guidelines to incorporate changed market principles and practices, including the following key variables:
  - cost of capital without any risks (risk free rate)
  - additional cost of capital representing business and project risks (market risk premium)
  - adjustments for taxation benefits available to an investor (gamma).
2. Energex updates its treasury policy to ensure it reflects changes in the business structure and current processes, and establish a treasury committee to identify and review purchasing and credit risks.

## Reference to comments

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In accordance with s.64 of the *Auditor-General Act 2009*, a copy of this report was provided to Energex Limited and the Under Treasurer, Queensland Treasury and Trade for comment.

We provided copies of the report to the Premier, the Treasurer, the Department of the Premier and Cabinet for information, the Minister for Main Roads, Road Safety and Ports Minister for Energy, Biofuels and Water Supply, the Director-General, Department of Energy and Water Supply; Queensland Treasury Corporation and the Australian Energy Regulator.

Their views have been considered in reaching our audit conclusions and are represented to the extent relevant and warranted in preparing this report.

The comments received are included in Appendix A of this report.

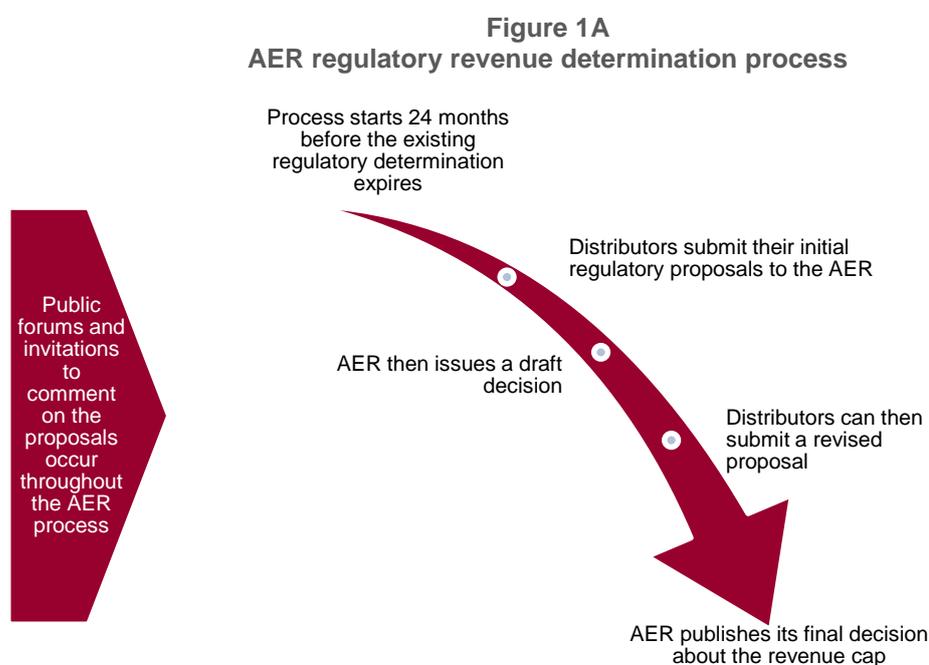
## 1. Context

Energex Limited's (Energex) electricity distribution network spans approximately 25 000 square kilometres and provides distribution services to almost 1.4 million domestic and business customers through privately owned energy retailers. Energex is a Government owned corporation (GOC) and has regulated and unregulated business units.

The Australian Energy Market Commission (AEMC) sets the rules under the national electricity law for regulating distribution service providers, including electricity networks like Energex. The Commission requires the Australian Energy Regulator (AER) to set a ceiling on the revenue or prices that a network can earn or charge during a regulatory period, known as a revenue or price cap. Energex is subject to a revenue cap.

### Revenue determination

Regulated network businesses must periodically apply to the AER to assess their revenue requirements—typically, every five years. Figure 1A shows the process followed by the AER to provide a regulatory determination.



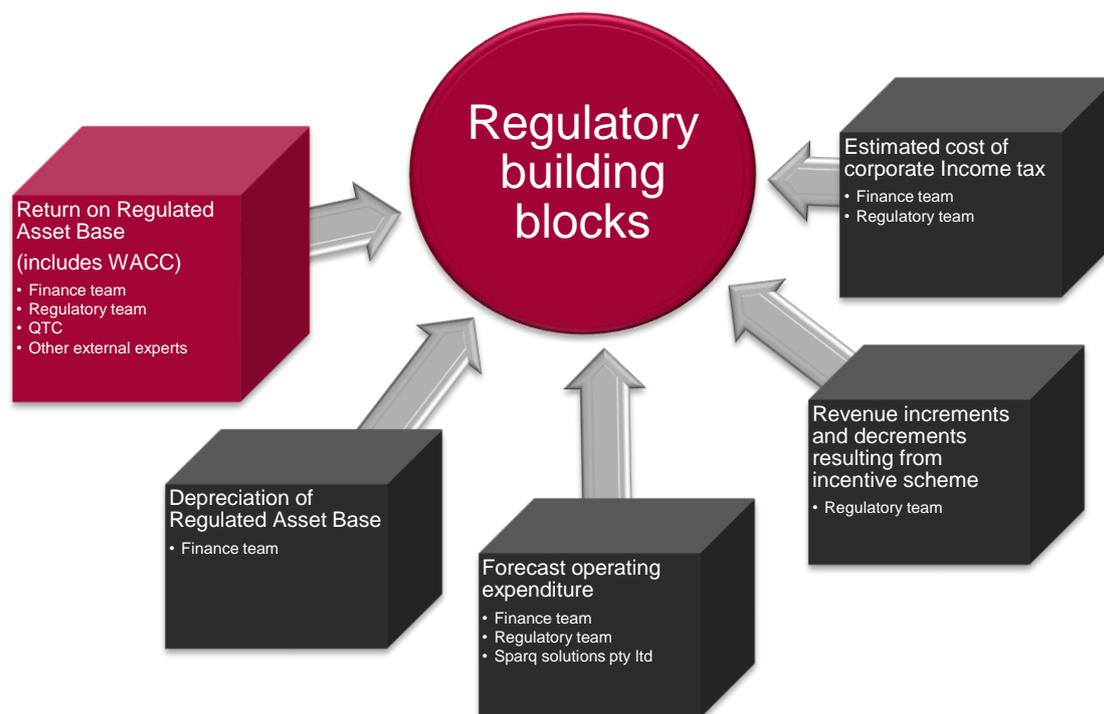
Source: Queensland Audit Office

Although the AER must have regard to information submitted in proposals by regulated businesses, like Energex, the AER has overall responsibility for setting revenue caps. It uses its own formula and guidelines for benchmarking and calculates a result independent of submissions made.

### Energex's regulatory proposal process

Regulatory proposals comprise a number of components referred to as building blocks. For Energex, these building blocks make up the formula used to calculate Energex's overall revenue cap. Building blocks at Energex are sourced by the regulatory team from a number of divisions as detailed in Figure 1B.

**Figure 1B**  
**Sources of information for Energex's regulatory building blocks (revenue cap)**



Notes: Energex's treasury unit forms part of the finance team

Source: Queensland Audit Office

The largest building block is the return on the regulated asset base which includes a weighted average cost of capital (WACC) component, the average cost of raising funds through debt and equity to meet capital needs. Energex calculates what it believes to be a reasonable WACC, to develop its initial submission to the AER and to determine whether or not to challenge the WACC set by the AER.

## Weighted average cost of capital

A WACC approach estimates the expected rate of return on total assets. It is calculated by combining the return on debt and equity of a government owned corporation (GOC), weighting these returns by the total value of debt and equity held.

This approach is widely used by GOCs for decision-making purposes, including when to make capital investments. If a return on an investment is higher than WACC, then economic criteria for making an investment is met.

WACC is calculated by estimating:

- a weighted return on equity
- the impact of dividend imputation, known as gamma
- weighted cost of debt.

The return on equity and cost of debt are weighted to reflect the proportion of capital allocated to each.

Return on equity is calculated using a number of assumptions and reflects the rate of return an investor expects to earn for the risk it is exposed to from the investment. It is estimated using the risk free rate and a risk premium which includes the effect of volatility or sensitivity to other investments.

Dividend imputation represents the benefits of imputation credits for an investor, and typically will have a value greater than zero.

Cost of debt is a combination of the risk free rate and a premium for the credit risk, or debt risk premium, of the entity. The credit risk is based on the credit rate of the entity and the cost of credit risk over time published by major financial institutions. Typically, the risk free rate is estimated using one of the following industry accepted approaches to determine what the cost of funds could be in the future:

- Historical modelling of interest rates — organisations use historical three, five or ten year averages for this purpose. The choice is often linked to the organisation's planning time horizon or the maturity requirements set for hedging in their treasury policy.
- The current market interest rate — the current prospective rates used are again linked to either their planning time horizon or the term of hedging (removing risk from future transactions) required by their treasury policy.
- Economic modelling of future interest rates — this approach uses macroeconomic trends to determine future interest rate levels. Of the three alternatives presented this is the one least used.

Energex used an average over the preceding five years for both the risk free rate and the debt risk premium for the statement of corporate intent (SCI) and corporate plan.

The weighting of return on equity and cost of debt usually reflects an optimal capital structure, rather than the actual structure of the entity.

## Use of WACC at Energex

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WACC is used to help make decisions about how best to use capital. At Energex WACC is considered in two major areas:

- as part of the assessment and response to the setting of the WACC by the AER, as part of the revenue setting process
- for planning and reporting purposes particularly as part of the process to draft the SCI which is delivered to the stakeholder, the Queensland Government.

The first use, for the regulatory assessment, is to assist Energex in providing a position paper to the AER and then determining whether to challenge the tariff set by the AER. This assessment involves examining the approaches set out by the AER for setting the WACC and determining if Energex is comfortable that approaches proposed by the AER result in the best possible estimate of the WACC.

The second use allows management to provide a projection of the organisation's future revenue to their stakeholder.

The WACC used for the AER submission is different from that used for the SCI and five year corporate plan.

The WACC for the AER submission is based on the approach set by the AER. This approach is set to represent a market based measure designed to replicate the cost required to cover capital requirements for a benchmark organisation providing electricity based services which the AER sets the tariff for.

The WACC generated for the SCI and five year corporate plan includes Energex's current and projected cost of funds. The WACC used to calculate regulated revenue for the period beyond the current regulatory period is legitimately different from the WACC set by the AER.

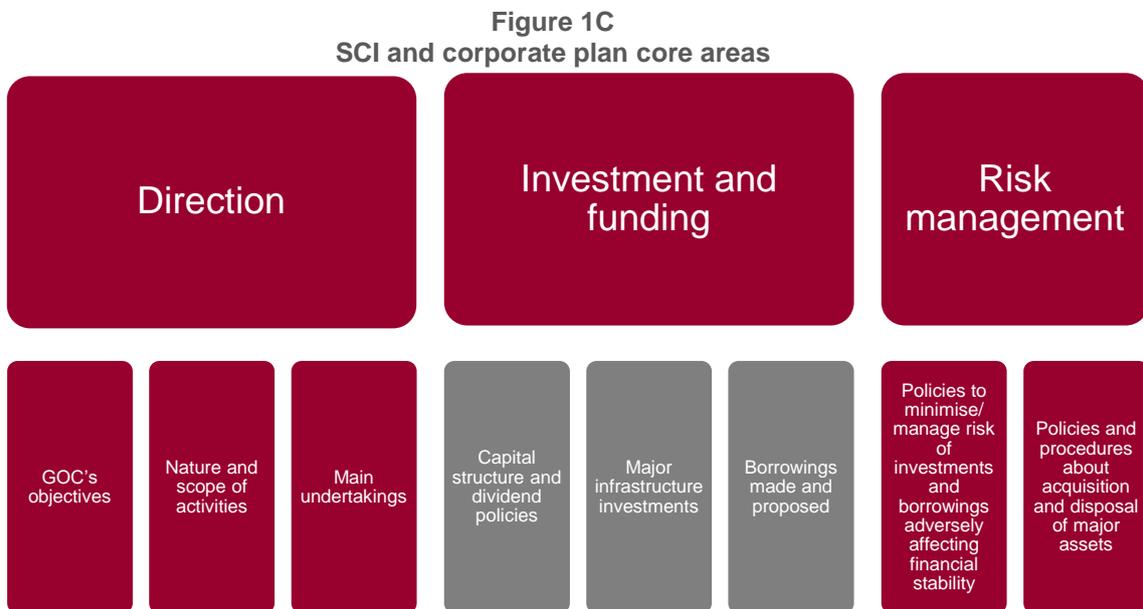
## Statement of corporate intent and five year corporate plan

The SCI is a formal performance agreement between the board of Energex and its shareholding ministers covering both annual financial and non-financial performance targets. It represents an acknowledgment and agreement about Energex's major activities, objectives, undertakings, policies, investments and borrowings for the financial year. It is prepared in accordance with Section 7 (2) of the *Government Owned Corporations Act 1993 (Qld)* (GOC Act) and with government legislation and policies.

The SCI provides details of Energex's short and medium term priorities and initiatives, including expected payments to and from government. The expected dividends, state equivalent taxation, competitive neutrality fees and debt are documented in this plan and are incorporated by Queensland Treasury in the state Budget.

A five year corporate plan is also prepared to fulfil the requirements of the GOC Act. It details the SCI elements over a five year span. Energex's overall planning framework is designed to align the short and medium term SCI priorities and initiatives with its long-term direction.

The elements of Energex's SCI and five year corporate plan relate to three core areas outlined in figure 1C.



Source: Queensland Audit Office

The plans include financial and non-financial performance indicators, projections for revenue, operating expenditure and capital expenditure. As with any budget, assumptions are made and estimates used, to forecast these projections. Estimates, including whether WACC affects the forecast, used by Energex are included in Figure 1D.

**Figure 1D**  
**Key estimates and assumptions in corporate plan**

Key Forecast	Estimate or Assumption	Is WACC used?
Regulatory Revenue	Energy use forecast	No
	Price in the current regulatory period	Yes, AER regulatory WACC determines the price path
	Price outside the current regulatory period	Yes, Energex estimates what the AER regulatory WACC for the future regulatory period may be. This is based on the most current market information.
Non-regulatory revenue	Demand for product	No
Operating expenses	Historical costs with current market growth rates, adjusted for changes to strategy	No
Regulated capital expenses	Allowance provided by the AER determination, adjusted for progress of actual capital program	No
Non-regulated capital expenses	Individual projects are approved by government	WACC is used as a decision making tool, amongst others, by government to approve the project. The WACC is calculated according to the Cost of Capital Principles issued by Queensland Treasury.

Source: Queensland Audit Office

## Roles and responsibilities

### Role of the Australian Energy Regulator

The AEMC sets the rules under the national electricity law which include the economic regulation of distribution services — setting out the regulatory framework for electricity networks. The frameworks require the AER to set a ceiling on the revenues or prices that a network can earn or charge during a regulatory period.

As part of this process, regulated network businesses must periodically apply to the AER to assess their revenue requirements — typically, every five years. An example of the process followed to establish a new determination is set out in Appendix D.

In determining the revenues or prices that a network business can charge, the AER must forecast the revenue requirement of a business to cover its efficient costs (including operating and maintenance expenditure, capital expenditure, asset depreciation costs and taxation liabilities) and provide a commercial return on capital.

### Role of Energex

Energex must provide a proposal to the AER outlining the amount of revenue it requires to operate an efficient network over the next five year period.

At Energex a separate regulatory division is responsible for all interaction with the AER — formulating and submitting regulatory proposals, and annual reporting to the AER for benchmarking purposes.

### Role of Queensland Treasury

Queensland Treasury monitors the performance of all these Queensland Government Owned Corporations on behalf of the Treasurer, who is their shareholding minister.

Treasury is responsible for:

- negotiating the annual performance contract — statement of corporate intent and five yearly corporate plans for the businesses and monitoring performance against targets throughout the year
- assessing major investment proposals to ensure they fit the government's objectives for the community
- advising responsible and shareholding ministers of critical current and emerging issues that may affect government-owned businesses
- administering the process for appointments to boards of government-owned businesses.

## Legislation and policy frameworks

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### Regulatory determinations

The National Electricity Law and Rules set out the regulatory framework for electricity networks. Chapters 6 and 6A of the National Electricity Rules lay out the framework that the AER must apply in undertaking its role for distribution and transmission networks. Section 6.2.4 requires the AER to make a distribution determination for each distribution network service provider.

### Government owned corporations — cost-of-capital principles

In February 2006, Queensland Treasury released cost-of-capital principles to government owned corporations to assist shareholding ministers in reviewing government owned corporation investment proposals. The principles provide a framework for the calculation of cost of capital for GOCs and use a WACC.

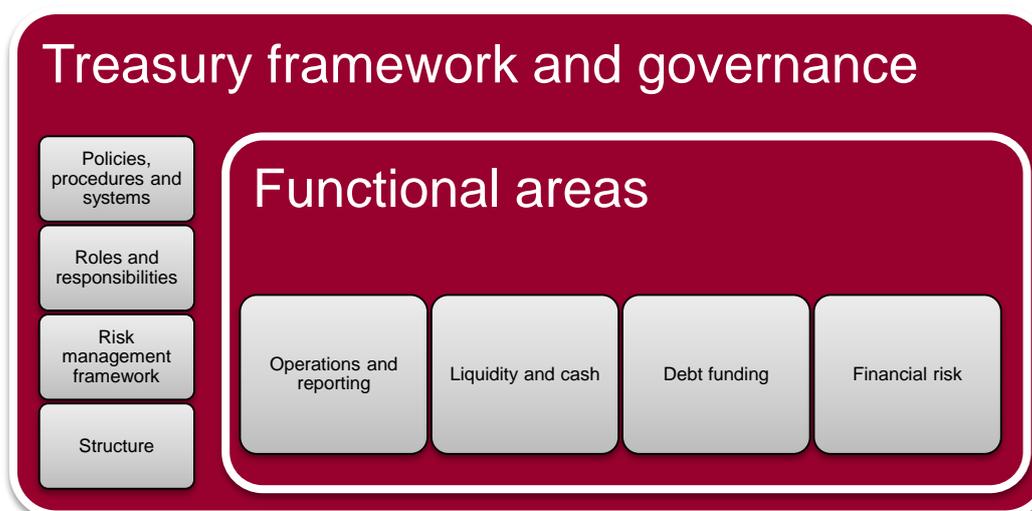
There are a number of inputs and assumptions used to calculate WACC and the cost of capital principles define those inputs. This ensures a consistent assessment of GOC investment proposals by shareholding ministers.

## Functions of a treasury unit

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Figure 1E contains the elements of a typical treasury unit.

**Figure 1E**  
**Elements of a typical treasury unit**



Source: Queensland Audit Office

The complexity of an organisation's financial risk profile has an impact on the type of treasury unit they need.

Organisations require a complex treasury function if they have:

- multiple treasury related risks across all the financial risk categories
- operations highly affected by financial risks
- considerable benefit to be derived from the active management of these risks
- stakeholders seeking proactive management of these risks
- directors willing to embrace the risk resulting from this active management approach.

## Rationale for the audit

On 2 October 2014, the Australian Senate referred an inquiry into the performance and management of electricity network companies to the Environment and Communications References committee. The inquiry specifically investigated a matter relating to an allegation from a former Energex employee.

The former employee was a Treasury analyst at Energex between June 2012 and September 2014. The individual alleged that management requested they reverse engineer the debt calculation to achieve a desired WACC. The WACC is used to determine Energex's maximum allowable revenue under the regulation.

The former employee also raised concerns regarding the adequacy of financial risk management practices, including system and processes used to manage foreign exchange and commodity price exposures.

The Senate Committee met in June 2015 recommending that Queensland Government request the Queensland Auditor-General conduct a performance audit of financial management risk practices at Energex. The Honourable Treasurer, Curtis Pitt MP sent a letter to the Auditor-General on 14 September 2015, requesting that he conduct a performance audit.

In a letter dated 24 September 2015, the Auditor-General confirmed his acceptance to undertake this performance audit.

## Audit objective, method and cost

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The objective of the audit was to assess whether the WACC, used in conjunction with the revenue decision made by the AER, was prepared by Energex in accordance with relevant laws and regulations.

In addition, we examined the effectiveness of Energex's treasury function, controls in place, policies and procedures in managing Energex's financial risks, including benchmarking how they compare to treasury functions in other similar organisations.

The cost of this report was \$148 000.

## Entities subject to this audit

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The entity subject to this audit is Energex Limited. References to other entities in this report are made solely within the context of meeting the audit objective set out above.

## Report structure

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The remainder of this report is structured as follows:

Chapter	Description
Chapter 2	Assesses Energex's weighted average cost of capital calculation
Chapter 3	Compares Energex's treasury unit and risk management practices to industry practice
Appendix A	Contains responses received
Appendix B	Contains a glossary
Appendix C	Details the reason for this audit and the approach taken
Appendix D	Details the regulatory determination process
Appendix E	Shows a timeline of events for the AER and SCl/corporate plan processes

## 2. Weighted average cost of capital

### In brief

The weighted average cost of capital (WACC) is used at Energex as part of the assessment and response to the Australian Energy Regulator (AER) and for planning and reporting purposes to draft the statement of corporate intent (SCI) and five year corporate plan.

For the 2015–2020 regulatory determination process, Energex's regulatory team prepared the WACC based on the AER guidelines with input from external specialists. For the SCI and five year corporate plan, Energex's treasury unit assisted the budget team to prepare the revenue estimates using the AER established WACC and, beyond that period, a WACC using historical and current market information.

### Conclusions

Although Energex provides submissions on WACC inputs and other regulatory information to the AER, Energex does not have significant influence over final rates decided by the regulator. The process followed by Energex in obtaining new revenue determinations is consistent with national electricity law and rule requirements.

In the lead up to the AER submission, management asked the former employee for a cost of debt data, using a predetermined interest rate range. However this analysis was not used in Energex's submissions to the AER.

The SCI and corporate plan contain revenue estimates beyond the applicable AER determination period, based on the management developed WACC.

### Findings

- The SCI and five year corporate plan contain forecast regulated revenue using the AER-established WACC, where the AER-established WACC is available. For periods outside of the AER determination, Energex estimates the future regulatory WACC. This estimate does not affect the actual revenue received, which is based on the determination issued by the AER.
- The work undertaken by the former Energex treasury unit employee was not incorporated in the WACC used to estimate revenue beyond the current regulatory period in either the SCI and corporate plan submitted to Queensland Government, or the analysis used in submissions to the AER.
- Energex's non-regulatory WACC calculations used for investment proposals are based on the *Government Owned Corporations – Cost of Capital Principles 2006* issued by Queensland Treasury, however these principles are out of date.

### Recommendation

We recommend Queensland Treasury:

1. updates the cost of capital guidelines to incorporate changed market principles and practices, including the following key variables:
  - cost of money without any risks (risk free rate)
  - additional cost of money representing business and project risks (market risk premium)
  - adjustments for taxation benefits available to an investor (gamma).

## Introduction

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Energex calculates its version of the weighted average cost of capital (WACC), in order to provide an initial submission to the Australian Energy Regulator (AER), and to determine whether or not to challenge the WACC set by the AER in draft and final determinations. An independent regulatory team within Energex is used to formulate submissions and respond to the AER draft determinations. The team sources information from many areas within Energex and benchmarks data by involving experts outside of Energex.

The former employee who worked in the treasury unit of Energex alleged that management requested they reverse engineer their debt calculation to achieve a desired WACC.

In this chapter we assess the appropriateness of the process Energex applied in preparing the submission and responses to the AER and the process to calculate the WACC for corporate planning purposes.

## Conclusion

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The process followed by Energex in obtaining its' 2015–20 revenue determination from the AER is consistent with national electricity law and rule requirements. The regulatory process is robust, with input from external specialists and other market participants.

Work done by the former employee about cost of debt alternatives was used in the process for the statement of corporate intent (SCI) and five year corporate plan, and was not used in the regulatory determination process. Although this work was not used in the final SCI and five year corporate plan, considering the impact of cost of debt alternatives in formulating a WACC is a common practice.

Energex management changed its WACC methodology to forecast revenue beyond the 2010–15 regulatory period for the SCI and five year corporate plan. The changed methodology supported a result considered reasonable by management. We do not consider the approach used by Energex management to forecast revenue to be unreasonable. The new methodology adopted is industry accepted and, since the time of this decision, the AER has also changed its methodology in the determination for 2015–20 from spot rates to historical averages.

## WACC and the 2015–20 Energex regulatory process

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### Energex's process for determining regulatory WACC

Energex used both internal and external expertise to review aspects of the WACC before making its submission to the AER.

Energex engaged a consultant to assist with the WACC calculation process. The consultant in turn sourced further multiple consultants who were both subject matter experts and had been used by other industry participants. It is also important to note that the work completed was not always just for Energex, one report used by Energex was commissioned jointly by Energex and Ergon and a second report was provided to a number of electricity companies.

Queensland Treasury Corporation (QTC) provided analysis to Energex about average bond rates, which was supported by historical financial market data sourced from the Reserve Bank of Australia (RBA). QTC also reviewed the averaging approach being adopted by the AER. They further examined how the yield curves being provided from market sources could be extended to meet the maturity requirements needed to determine the WACC.

Energex sought analysis on the WACC model approach and equity inputs from industry experts. The experts have provided similar work in the past for AER determinations of other electricity companies, both in and outside of Queensland, as well as for the AER.

Energex's analysis of the payout ratio and gamma approaches was well documented. The submission to the AER also included a paper written by industry experts addressing gamma.

Energex also used consultants to review its credit analysis in regard to ratings. The credit analysis dictates the margin applicable above the base interest rate set based on the bond analysis.

## Governance

Energex used the papers and analysis highlighted above to report to and seek approval from their regulatory committee for the approach on the regulatory WACC calculation. The submission to the AER was also signed off by this subcommittee of the board.

After the initial regulatory decision made by the AER, Energex board papers are seen to outline points that the board had concern with about the draft AER decision. Papers submitted to a board subcommittee also outlined recommended steps for Energex to take in developing its response back to the AER. From discussion with Energex management we understand that this was the approach taken in developing their response.

## Use of WACC for revenue forecasts in the SCI and five year corporate plan

The SCI and five year corporate plans contain Energex's regulated and unregulated revenue forecasts. The regulated revenue represents the material portion of revenue for Energex.

As the corporate plan reflects forecasts for a five year period the corporate plan may need to contain regulatory revenue estimates outside of the AER current regulatory period. For example, in 2012–13 Energex prepared a corporate plan with two years' revenue based on the AER WACC and the final three years' revenue based on the Energex estimated future regulatory WACC.

Energex used the following WACC rates set by the AER for the regulatory period in place being 9.72 per cent for 2010–2015, and 6.01 per cent for 2015–2020, with the latter per cent now updated annually for changes in the cost of debt.

## Methodology for estimating future regulatory WACC

Energex considered three methodologies for estimating the future regulatory WACC, detailed in Figure 2A.

**Figure 2A**  
**Methodologies for estimating the future regulatory WACC**

	Methodology	Used	Estimated Rate per cent
1.	Cost of equity directly from AER determination Cost of debt (risk free rate and debt risk premium) using spot rate	Corporate plans prior to 2013-14	6.93
2.	Cost of equity updated with current market risk premiums Cost of debt (risk free rate and debt risk premium) using preceding five year average	Corporate plan for 2013-14	8.13
3.	All aspects based on spot rate	Scenario analysis within corporate plan	7.08

Source: Queensland Audit Office

Analysis was performed by Energex's treasury unit for each of the three methodologies. Management identified concerns with methodology 1 as they believed that it did not provide a reasonable estimate of revenue and may have resulted in inaccurate information being used for management decisions. The market risk premium used in the cost of equity calculation was considered out of date, and the risk free rate used for both cost of equity and cost of debt was at an all-time low, and therefore not representative of future expectations.

Management approved the change from methodology 1 to methodology 2 for corporate planning in January 2013.

### Forecast of future regulatory revenue in the five year corporate plan

To estimate the revenue for the three years from 2016 to 2018, Energex used an estimate of future regulatory WACC. The estimated WACC for the future regulatory periods included an estimate of the cost of debt, incorporating the risk free rate and debt risk premium, based on an average over the preceding five years. Figure 2B outlines the WACC, including debt inputs for the 5-year corporate plan.

**Figure 2B**  
**WACC used for regulatory revenue forecasts in the 2013-14 corporate plan**

Regulatory revenue	2012–13 actual per cent	2013–14 actual per cent	2014–15 actual per cent	2015–16 estimate per cent	2016–17 estimate per cent	2017–18 estimate per cent
WACC	9.72	9.72	9.72	8.13	8.13	8.13
Risk free rate	5.64	5.64	5.64	4.50	4.50	4.50
Debt risk premium	3.33	3.33	3.33	2.85	2.85	2.85

Source: Queensland Audit Office

The estimated regulatory WACC of 8.13 per cent was used to estimate revenue for corporate planning and did not result in actual revenue earned. The actual revenue earned was, and is, based on the WACC approved by the AER in the determination for 2015–2020.

The SCI and corporate plan fully disclose the calculation of estimated regulatory WACC.

The actual revenue earned in the years 2015 to 2018 is only determined by the AER approved regulatory WACC, and is not affected by the estimated regulatory WACC which is used for budgetary purposes.

### Energex's process for determining non-regulatory WACC

Energex has adopted a WACC for each of its three separately identifiable business units:

- regulated electricity network
- non-regulated metering dynamics
- non-regulated small scale generation and energy services.

Energex's non-regulated business units, and associated WACC, are proportionally small in number compared to the regulated.

Energex's non-regulatory WACC calculations are based on the *Government Owned Corporations — Cost of Capital Principles 2006* issued by Queensland Treasury. Energex has adopted a WACC for each separately identifiable business unit that has a different risk profile, and Energex's treasury unit provided key inputs into the non-regulatory WACCs. This WACC is used as a hurdle rate, together with other key infrastructure planning information, for the shareholding minister to approve major capital projects. Approval is obtained from the shareholding minister for all regulated projects above \$75 million and for unregulated projects about \$20 million.

### Cost of capital principles issued by Queensland Treasury

The cost-of-capital principles issued by Queensland Treasury in 2006 are used to calculate non-regulatory WACC. The methodology contained in the cost of capital principles is widely accepted for cost of capital calculations. The cost of equity and dividend imputation (gamma) component of the principles contains defined inputs and assumptions that do not reflect changed market principles and practices.

The majority of Energex's business is regulated and the use of cost of capital principles which are out of date will only relate to small non-regulated components of its business.

## Energex's treasury unit

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### Involvement of Energex treasury unit in the WACC process

Appendix E provides a timeline generated by Energex showing both the sequence of key events taken in regard to the 2015–2020 regulatory process and the involvement Energex's treasury unit had in the development of the SCI and five year corporate plan, which was also being developed during that period.

The timeline highlights the difference between work completed for the SCI and five year corporate plan and the work on the review of the AER outcome and Energex's response. The two streams of work both focus on a WACC, however, as previously noted, the WACC used for both processes is different. The WACC used to calculate regulated revenue for the SCI and five year corporate period beyond the current regulatory period is legitimately different from the WACC set by the AER.

The timeline also shows the active involvement the Energex treasury unit had in determining the WACC for the SCI and corporate plan in contrast to their lack of involvement in determining the WACC for the regulatory response process. The previous employee who raised concerns worked in the treasury unit that was responsible for calculating WACC for corporate planning purposes.

### Data obtained by the former employee on WACC

We did not find evidence of the former employee being involved in the process of developing Energex's initial submission to the AER or in subsequent responses to the AER about draft determinations made by the AER. We found email messages which showed Treasury's involvement in the development of the SCI and five year corporate plan — in particular the setting of the cost of debt for the calculation of the overall WACC.

Our review however, did not find a link between the cost of debt data obtained by the former employee and the WACC used in either the SCI/corporate plan submitted to the stakeholder or the analysis used to respond to the AER.

## Recommendation

---

We recommend Queensland Treasury:

1. updates the cost of capital guidelines to incorporate changed market principles and practices, including the following key variables:
  - cost of money without any risks (risk free rate)
  - additional cost of money representing business and project risks (market risk premium)
  - adjustments for taxation benefits available to an investor (gamma).

## 3. Financial risk management

---

### In brief

We analysed Energex's treasury function to identify what controls are in place to manage financial risk, comparing their practices to ones used in similar industries.

### Conclusions

Overall financial risk management practices are commensurate with the level of risk at Energex. Practices are in accordance with industry benchmarks for organisations of a similar nature and size.

### Findings

- Energex's foreign exchange and commodity price risks are not significant at this time. Debt is sourced through the state borrowing program and funding risk is managed at a whole-of-government level. Internal controls are in place manage these financial risks.
- Financial risks associated with expenditure are identified by the procurement area and treasury is not proactively involved in identifying and reviewing purchasing and credit risks in this area.
- Minor improvements are required to strengthen Energex's risk management processes, including updates to policy to reflect business practices, integrating treasury expertise into everyday business, improving cash flow forecasting and management reporting.

### Recommendation

We recommend that Energex:

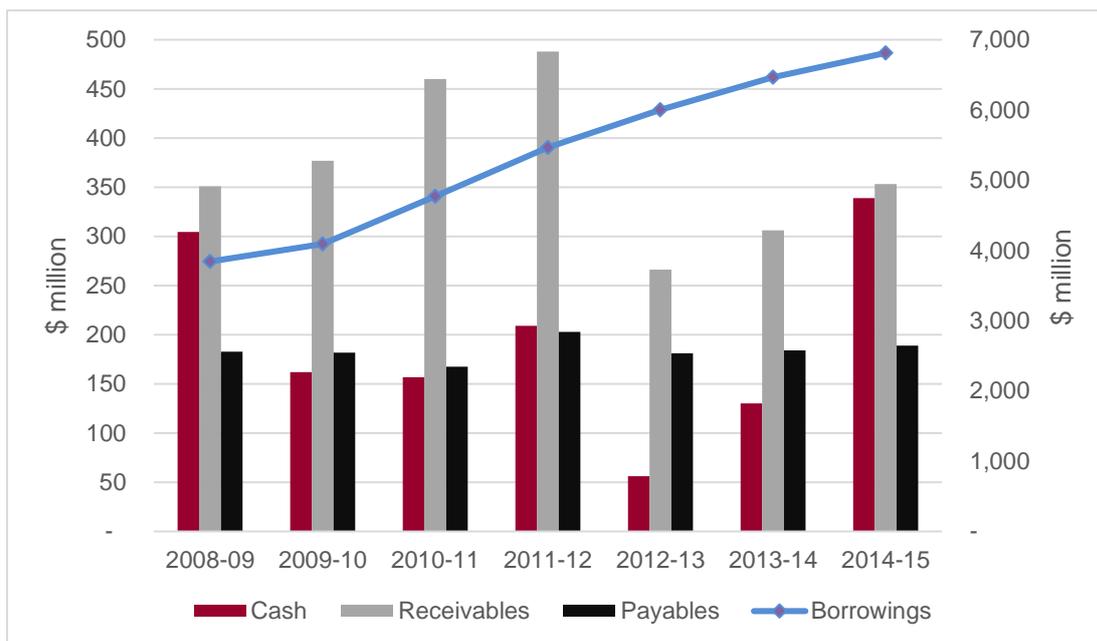
2. updates the treasury policy to ensure it reflects changes in the business structure and current processes, and establish a treasury committee to identify and review purchasing and credit risks.

## Introduction

Financial risk at Energex is limited to the cash, borrowings, receivables and payables. Borrowings at \$6.81 billion at 30 June 2015, represent 88 per cent of Energex's financial risk exposure.

Amounts exposed to financial risk have varied over the last six years as operations have changed. However, apart from borrowings, most exposures have not grown significantly since 2008–09. The separation of the retail and distribution businesses in 2008–09 resulted in less commodity, foreign exchange and credit risk. Figure 3A shows the change in balance sheet exposures over the past six years since 2008–09.

**Figure 3A**  
Change in balance sheet financial risk exposure 2008–09 to 2014–15



Source: Queensland Audit Office

In this chapter we assess the practices of the treasury unit at Energex in light of the risks and risk management objectives of the entity and compare them to treasury practices of similar organisations. We have considered the support Energex receives from the Queensland Treasury Corporation (QTC) in conducting its treasury functions.

## Conclusion

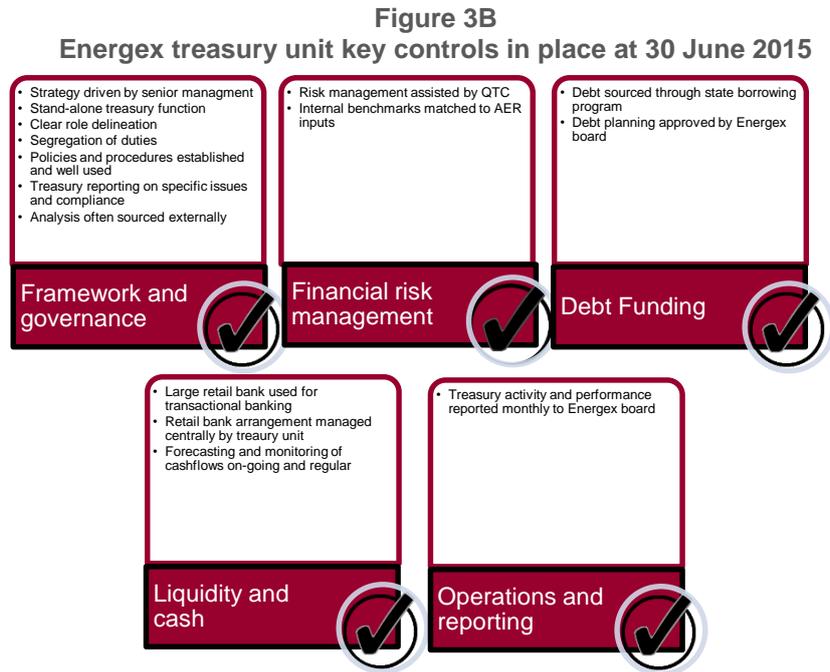
At the time of this audit, Energex was not exposed to significant foreign exchange or commodity price risk, therefore a complex treasury approach to managing those risks was not required. We did not identify significant weaknesses with Energex's treasury unit risk management process, as day-to-day activity is limited. However, treasury is not proactively involved in identifying and reviewing financial risks associated with procurement contracts, and manages these risks on an ad-hoc basis.

The treasury unit is effectively managing foreign exchange and commodity price risk, good controls are in place, with Energex's approach to treasury being clearly documented in its policies and understood throughout the organisation. Energex sources expertise where required to manage treasury exposures.

There were several operational control weaknesses identified by the former employee in December 2013. In May 2015, these were investigated and resolved through the engagement of an accounting firm.

## Treasury unit internal controls

Figure 3B shows Energex's treasury key controls in place at 30 June 2015.



Source: Queensland Audit Office

Energex could strengthen treasury practices by updating its policies to reflect organisational changes, and establish processes to manage financial risk associated with purchasing and sales of goods.

Although the policy needs to be updated, it sets out clearly the risk management approach the board wishes to be applied to treasury exposures.

QTC manages the debt portfolio, including issuing new debt in advance of requirements, to ensure it can provide the borrowing requirements of the Energex consolidated group. The relationship and support Energex receives from QTC is consistent with how other state-owned organisations manage their treasuries across the country.

At 30 June 2015 outside of borrowings, the most significant financial risk for Energex was credit risk exposure — the risk of a retailer defaulting on its obligations. However, Energex did not identify any material credit risks at that time.

## Managing financial risks

Energex has a stand-alone treasury function organised along traditional lines. Energex uses QTC to provide debt arrangements and manage interest rate risk.

Roles and duties between Energex and QTC are clearly separated. QTC handles risk management activities and provides Energex with a debt portfolio in the form desired to meet the current risk management requirements. So there is limited day-to-day activity for the treasury unit to perform. Energex's activity is focused on cash management and reporting.

The treasury strategy is driven by senior management, with analysis often sourced from QTC or outside treasury consultants.

Formal policies and procedures are established and well used. The Energex treasury policy addresses the key risk identified in Energex's Summary Risk Management Report, which the treasury unit has responsibility for. However, the policy needs to be updated to accommodate recent changes to treasury practices and approaches.

Energex has a standard treasury framework including a traditional governance framework. Current treasury reporting is a combination of papers about specific issues requiring board approval, and reporting on compliance with risk management directives outlined in the policy and reported on in the monthly treasury and performance reports.

As Energex's treasury operations are supported by QTC, there is no need for a treasury system. Treasury operational payment activity is managed via their bank's online banking system.

### Comparison to industry benchmark

At 30 June 2015 the Energex consolidated group (the group) is exposed to a number of financial risks. The most significant credit risk exposure is the risk of a retailer defaulting on its obligations.

There were no financial assets or liabilities at 30 June 2015 with a material exposure to foreign exchange or commodity price risk.

QTC manages the portfolio, including issuing new debt in advance of requirements, to ensure it can meet its ongoing funding commitments to the group.

Interest rate risk occurs when actual financing costs are greater than that allowed for by Energex's regulator. Liquidity risk occurs where insufficient funds exist to fulfil cash flow obligations on a timely basis. Capital structure risk occurs when balance sheets are inefficiently structured resulting in suboptimal returns to the shareholders.

Energex does not have risk management objectives requiring a complex treasury approach. Given this risk appetite, we did not identify significant issues with the way the treasury function operates.

The treasury unit could improve its service by offering more systematic advice to the business on treasury matters, while also managing key treasury processes and risks. Energex currently approaches its advice role on an ad hoc basis, primarily when issues arise or when business units reach out for support.



## Treasury functions

We have assessed the treasury function across the four key areas of financial risk management, debt funding, liquidity/cash and operations and reporting.

### Financial risk management

Energex takes a straightforward approach to interest rate risk management with the assistance of QTC. The interest rate profile is matched to the interest rate profile used in the tariff determination process. The current level of debt relative to the size of the balance sheet also matches the debt to equity ratio used in the tariff determination.

Interest rate risk management approaches are well outlined in the papers presented to the board. However, the policy has not been updated to reflect the way Energex currently manages interest rate risk.

Energex has limited foreign exchange and commodity price risk. The risk comes from procurement contracts. However, given the amounts required are not always set in the contract and the fact the amounts are now not significant, Energex does not currently have any foreign exchange or commodity price hedges in place.

Treasury's involvement with the procurement area is on an 'as needs' basis driven by when there is requirement to assess the foreign exchange or commodity price risk from a contract. Treasury could improve its ability to assess and potentially manage this exposure by interacting with business areas generating these risks.

Energex has limited counterparty risk which is primarily limited to the retail electricity companies and guarantees, with guidelines in regard to its management in the policy.

### Debt funding

Energex sources all of its debt funding from QTC, with QTC arranging debt as part of the Queensland state borrowing program. The structure of the debt, servicing and repayment is set by QTC. This removes the need for Energex to develop its own approach to terms and conditions and its requirement to manage multiple banking/funding relationships.

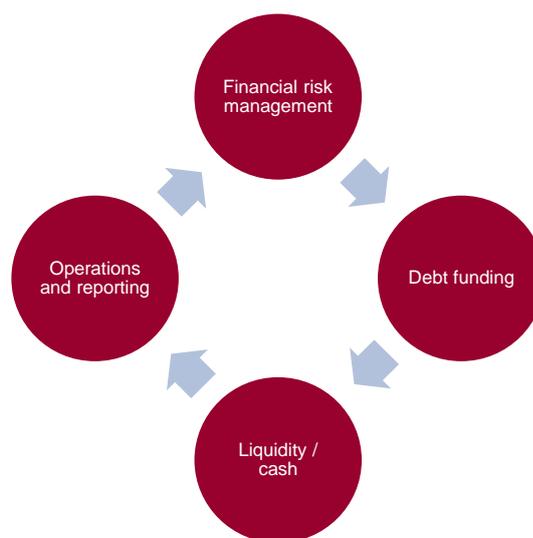
With the support of QTC, Energex undertakes debt planning during the budget and regulatory revenue setting process. It then presents the cash flow outcomes of the budget setting process and the implications for debt drawdowns, for the next year, to the board for approval. QTC then facilitates the management of loans with Energex and the related payments.

### Liquidity and cash

Daily cash management practices are consistent with accepted practice and are clearly documented and followed.

Treasury has a 12 month rolling cash flow forecast, which shows main cash inflows and outflows and also operates a two week daily cash flow forecast.

On a monthly basis, treasury provides the chief financial officer with a quarterly cash flow forecast. This is consistent with standard treasury practice.



The forecasting process could be improved by formally comparing forecast to actual cash position, and providing this information back to those responsible for input into the forecast.

Energex uses a retail bank for transactional banking services and QTC to provide debt funding. Energex operates and manages its transactional banking through the treasury area.

### Operations and reporting

Treasury settlements are limited and channelled through the QTC account. The rest of the settlements are managed through the retail bank's online banking facility. Treasury does not have an active role in performing other functions such as bank reconciliations, payments, receivables, accounting and tax. These functions are handled by the core finance function. Operational reporting is limited, primarily due to the low level of treasury transactions. There is a monthly treasury report, which is provided by QTC. Treasury activity and performance is also incorporated into the Chief Financial Officer's monthly reporting to the board. Key treasury risk measures, including compliance with policy is included in this report.

### Comparison to industry benchmark

No issues were noted as Energex's treasury function undertakes limited day-to-day treasury activities. For the activities that are undertaken, good controls are observed as there are well documented and followed procedures in place.

Treasury could be more proactive in managing its foreign exchange, credit and commodity price risk. This could be arranged through the formulation of an outwardly focused treasury committee, as recommended earlier. Highly effective treasury functions act as advisors to the business on treasury matters while also managing key treasury processes and risks. Energex approaches treasury risk management on an ad hoc basis, primarily when issues arise or when business units reach out for support. Treasury could improve its ability to assess and manage potential foreign exchange, credit and commodity price exposures by interacting with business areas generating these risks.

We noted Energex has a robust cash forecasting process, which is updated daily, but there is no comparison of actual to forecast cash flows, reviewing the effectiveness of the forecasting process. A minor recommendation has been made to Energex that the process could be improved through quarterly assessments of monthly forecasts to actual outcomes achieved.

## Recommendations

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We recommend that Energex:

2. updates the treasury policy to ensure it reflects changes in the business structure and current processes, and establish a treasury committee to identify and review purchasing and credit risks.

# Appendices

<b>Appendix A— Comments .....</b>	<b>28</b>
Comments received from Chairman, Energex Limited.....	29
Comments received from Treasurer and Minister for Aboriginal and Torres Strait Islander Partnerships and Minister for Sport .....	31
<b>Appendix B— Glossary .....</b>	<b>32</b>
<b>Appendix C— Methodology.....</b>	<b>33</b>
<b>Appendix D— Regulatory determination process.....</b>	<b>35</b>
<b>Appendix E— Timeline of events.....</b>	<b>36</b>

## Appendix A—Comments

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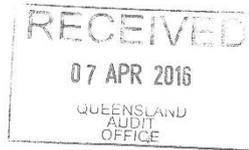
In accordance with s.64 of the *Auditor-General Act 2009*, a copy of this report was provided to Energex Limited and the Under Treasurer, Queensland Treasury and Trade with a request for comment.

Responsibility for the accuracy, fairness and balance of the comments rests with the head of these agencies.

## Comments received from Chairman, Energex Limited

04 April 2016

Mr A Greaves  
Auditor-General  
Queensland Audit Office  
PO Box 15396  
CITY EAST QLD 4002



Office of the  
Chairman

Dear Mr Greaves

### Performance Audit on the Financial Risk Management Practices at Energex

I refer to your correspondence dated 23 March 2016, ref 2016-9146P, including the proposed report to the Parliament of Queensland with respect to the above matter.

Energex is pleased to note in your report, findings that "there is no evidence of manipulation or improper behaviour by Energex in relation to the WACC it submitted to the regulator". These findings support Energex's own reviews into this matter that concluded Energex had acted appropriately with respect to the (WACC) calculations. Further, it is also pleasing to note that your office identified that "Energex's treasury unit is effectively managing financial risk, with well documented procedures that staff are following".

Energex accepts your recommendations relating to Energex, as provided in the report, that "Energex update its treasury policy to ensure it reflects changes in the business structure and current processes, and establish a treasury committee to identify and review purchasing and credit risks".

The Energex Treasury policy has now been updated to reflect your recommendation and was approved by the Energex Board on 21 March 2016. Energex will proceed to implement a management treasury committee to fulfil its obligations with respect to the above recommendations.

I have attached the completed table with timelines for the response to the above recommendations.

Yours sincerely

A handwritten signature in black ink, appearing to read "Gordon Jardine".

Gordon Jardine  
Chairman  
Energex Limited

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ABN 40 078 849 055

## Responses to recommendations



### Energex Limited, Financial Risk Management Practices at Energex

Response to recommendations provided by Chief Executive Officer, Energex on 04 April 2016.

Recommendation	Agree / Disagree	Timeframe for Implementation (Quarter and Year)	Additional Comments
We recommended that:			
1. Energex update its treasury policy to ensure it reflects changes in the business structure and current processes, and establish a treasury committee to identify and review purchasing and credit risks.	Agree	23 March 2016	Treasury Policy Update
		1 July 2016 to 30 September 2016	Establishment of Treasury Committee

## Comments received from Treasurer and Minister for Aboriginal and Torres Strait Islander Partnerships and Minister for Sport



Treasurer  
Minister for Aboriginal and Torres Strait Islander Partnerships  
Minister for Sport

Our Ref: 01087-2016

14 APR 2016

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Auditor-General of Queensland  
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Dear Mr Greaves *ANDREW*

### Performance Audit Of Financial Risk Management Practices At Energex Limited

Thank you for your letter of 23 March 2016 regarding the performance audit you undertook of the financial risk management practices at Energex Limited.

I appreciate your providing me with the opportunity to review the report before you present it to Parliament.

I note that one of the recommendations relates to Queensland Treasury. I am supportive of Treasury officers reviewing the document *Government Owned Corporations - Cost of Capital Principles 2006* to ensure it is up to date.

Thank you again for providing me with a copy of the report.

Yours sincerely

HON. CURTIS PITT MP  
Treasurer  
Minister for Aboriginal and Torres Strait Islander Partnerships  
Minister for Sport

## Appendix B—Glossary

Figure B1—Glossary

Term	Definition
Capital structure risk	The risk of Energex structuring its balance sheet inefficiently resulting in suboptimal returns to the shareholders.
Commodity price risk	The risk that contract prices will move as a result of adverse movements in commodity market prices.
Credit risk	The risk of a financial loss if a counterparty to a transaction does not fulfil its financial obligations
Funding risk	The risk that Energex will be unable to refinance existing debt or raise the required amount of debt to fund its business.
Interest rate risk	The risk that actual financing costs are different from that allowed for by Energex's regulator.
Liquidity risk	The risk of insufficient funds to fulfil Energex's cash flow obligations on a timely basis.
Operational risk	The inherent risk resulting from internal processes and systems or from external events.
Regulated asset base	The value of those assets that are used by the distributor to provide standard control services, but only to the extent that they are used to provide such services.
Weighted average cost of capital	Represents the cost of capital measured as the rate of return required by investors in a commercial enterprise with a similar nature and degree of non-diversifiable risk as that faced by Energex.
Non-regulatory WACC	WACC calculated for assets and operations that are not regulated by AER.
Regulatory WACC	Weighted average cost of capital approved by AER. This represents the return Energex can earn on their regulatory asset base and customer prices are based on this return.
Gamma	The taxation benefit of dividend imputation to an investor.
Spot rates	On-the-day market price
Historical average	Calculation over time, usually the past five to 10 years, of a component of WACC.
Risk free rate	An expected return on an investment with no risk. The Commonwealth Government Bond rate is a usual proxy for risk free rate.
Market risk premium	The rate of return required by an investor for taking on risk. This is in addition to the risk free rate.
Debt risk premium	Represents the risk of debt not being repaid by an organisation, also referred to as credit risk.

Source: Queensland Audit Office

## Appendix C—Methodology

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Section 37A of the *Auditor-General Act 2009* limits our performance audit of GOCs. Either the Legislative Assembly must request the audit by resolution, or the parliamentary committee, the Treasurer or an appropriate Minister must request the audit in writing.

### Reason for this audit

On 2 October 2014, the Australian Senate referred an inquiry into the performance and management of electricity network companies to the Environment and Communications References committee. The inquiry specifically investigated a matter relating to an allegation from a former Energex employee.

The former employee was a treasury analyst at Energex between June 2012 and September 2014. The individual alleged that management requested they reverse engineer their debt calculation to achieve a desired weighted average cost of capital (WACC). The WACC is used to determine Energex's maximum allowable revenue under the regulation and to estimate revenue for Energex's budget.

The former employee also raised concerns regarding the adequacy of financial risk management practices, including system and processes used to manage foreign exchange and commodity price exposures.

The Senate Committee met in June 2015 recommending that Queensland Government request the Queensland Auditor-General conduct a performance audit of financial management risk practices at Energex. The Honourable Treasurer, Curtis Pitt MP sent a letter to the Auditor-General on 14 September 2015, requesting that he conduct a performance audit.

In a letter dated 24 September 2015 the Auditor-General confirmed his acceptance to undertake this performance audit.

### Performance Audit approach

We conducted this audit in accordance with the Auditor-General of Queensland Auditing standards, which incorporate Australian Auditing, and Assurance Standards.

We conducted the audit between November 2015 and February 2016. The audit consisted of:

- interviews with officers from:
  - Energex Limited
  - Australian Energy Regulator
  - Queensland Treasury
  - Queensland Treasury Corporation
- analysis of information including:
  - Legislation and policy frameworks
  - Energex submissions to the Australian Energy Regulator
  - Energex board and sub-committee minutes
  - Energex statement of corporate intents and corporate plans
  - Briefing papers
  - Energex calculation of the weighted average cost of capital and supporting workpapers
  - Energex internal audit work conducted over concerns raised by the former employee
  - Energex treasury policies and procedures
  - Information provided by the former employee of Energex
  - Briefing from the Senate inquiry

- Email correspondence with Energex's treasury unit staff
- Other email correspondence with the Energex regulatory division

The former employee who raised concerns about Energex treasury practices provided written information which we have considered during our audit process. We reviewed the allegations and the response Energex took to these allegations, including the Internal Audit findings and reports on the key control issues raised.

The former employee was offered the opportunity to meet with us during the audit process however declined after we communicated that we do not make payments for interviews.

As part of our process for natural justice we invited the former employee to read through the proposed report and provide feedback to us before tabling the report in parliament. We made changes to the report, to the extent that feedback was relevant and warranted in reaching our conclusions.

## Appendix D—Regulatory determination process

Figure D1 sets out an example of the process followed by the Australian Energy Regulator in making a determination about five year revenue caps.

**Figure D1—Regulatory determination process**

Process	Event	Timeframe
Regulatory Proposal	NSPs inform the AER of the proposed methodology for forecasting expenditure	24 months before the end of the current RCP
	NSPs submit regulatory proposal (RP) to the AER	17 months before the end of the current RCP
	AER publishes issues paper on the RP	40 business days after the submission of the RP
	AER holds public forum on the issues paper and RP	Not more than 10 business days after the publication of the issues paper
	Submission on RP and issues paper	Not earlier than 30 business days after publication of issues paper
Draft decision	AER publishes draft decision (DD)	Publication date has no set deadline
	AER holds predetermination conference	Date not specified
Final decision	NSP submits revised regulatory proposal (RRP)	Not earlier than 45 business days after DD
	Submissions on DD and RRP	Not earlier than 45 business days after DD
	Cross-submissions (AER may invite further submission on the RRP) — optional	Not earlier than 15 business days after invitation for cross-submission was published
	AER publishes final decision (FD)	2 months before the start of the next RCP

Source: AER 5-year regulatory determination calendar 2013–17

## Appendix E—Timeline of events

Figure E1 shows the series of events which occurred for Energex during the 2015–20 regulatory proposal process and the involvement the Energex treasury had in the development of the statement of corporate intent and the corporate plan, also being developed at that time.

**Figure E1—Timeline of events — Energex AER submission, SCI and corporate plan**

Date	2013/14 Statement of Corporate Intent and Corporate Plan	AER rate of Return Guideline and Energex Regulatory Proposal
10.12.2012		AER issues Better Regulation Issues Paper for consultation
18.12.2012		AER issues Rate of Return Guidelines Issues Paper for consultation
15.02.2013		Energex makes submission to AER on the Rate of Return Guidelines Issues Paper (Energy Networks Association (ENA) makes submission on 18.02.2013)
25.02.2013	Board minutes - notation of WACC assumptions in the Corporate Plan (CP) 2013–14 to 2017–18 to reflect long run estimates	
18.03.2013	Together with the Manager of Energex Treasury Group, the former employee provided cost of debt data.	
30.03.2013	Draft Statement of Corporate Intent 2013–14 (SCI) and CP delivered to Government	
10.05.2013		AER publishes Rate of Return Guidelines Consultation Paper
28.05.2013	Energex submits revised draft SCI and CP to Shareholding Ministers (Covering letter explicitly references revenue assumptions and dependence on the forthcoming distribution determination). The Energex Treasury Group, including the former employee, were part of development of WACC.	
21.06.2013		QTC makes submission on the AER's Consultation Paper
28.06.2013		ENA makes submission on the AER's Consultation Paper (Energex supported ENA submission)
30.08.2013		AER publishes draft Rate of Return Guideline for Consultation

Date	2013/14 Statement of Corporate Intent and Corporate Plan	AER rate of Return Guideline and Energex Regulatory Proposal
10.09.2013	Energex submits final SCI and CP to Shareholding Ministers, with minor amendments and financial assumptions (including WACC) consistent with May 2013 draft.	
11.10.2013		<p>ENA makes submission on the AER's draft rate of Return Guideline.</p> <p>Energex makes submission on the AER's draft rate of Return Guideline</p>
17.12.2013		AER releases final Rate of Return Guideline
30.12.2013	Former employee detailed her concerns regarding Treasury Operations to Energex Management on the request of Energex Management.	
30.04.2014	Shareholding Ministers notify Energex of approval of SCI and acceptance of CP.	
12.06.2014		Energex Regulatory Committee endorses the proposed approach and positions on the rate of return issues for the Regulatory Proposal — referencing the AER's Rate of Return Guideline
31.10.2014		Energex submitted its Regulatory Proposal to the AER

Source: *Energex and Queensland Audit Office*

# Auditor-General Reports to Parliament

## Reports tabled in 2015–16

Number	Title	Date tabled in Legislative Assembly
1.	Results of audit: Internal control systems 2014-15	July 2015
2.	Road safety – traffic cameras	October 2015
3.	Agricultural research, development and extension programs and projects	November 2015
4.	Royalties for the regions	December 2015
5.	Hospital and Health Services: 2014-15 financial statements	December 2015
6.	State public sector entities: 2014-15 financial statements	December 2015
7.	Public non-financial corporations: 2014-15 financial statements	December 2015
8.	Transport infrastructure projects	December 2015
9.	Provision of court recording and transcription services	December 2015
10.	Queensland state government: 2014–15 financial statements	December 2015
11.	Management of privately operated prisons	February 2016
12.	Follow up Report 12: 2012-13 Community Benefits Funds: Grant Management	February 2016
13.	Cloud computing	February 2016
14.	Financial risk management practices at Energex	April 2016

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