Annual Report 2016

Hydro Tasmania

The power of natural thinking

cover image: Gauge reflection, by Howard Colvin, winner of the open category of the 'Waddamana in focus' photo competition

this page: Low water level at Lake Gordon, photo courtesy of ABC News

Directors' statement

To the Honourable Matthew Groom MP, Minister for Energy, in compliance with the requirements of the *Government Business Enterprises Act 1995*.

In accordance with Section 55 of the *Government Business Enterprises Act 1995*, we hereby submit for your information and presentation to Parliament the report of the Hydro-Electric Corporation for the year ended 30 June 2016. The report has been prepared in accordance with the provisions of the *Government Business Enterprises Act 1995.*

Grant Every-Burns
Chairman, Hydro-Electric Corporation
October 2016

Stephen Davy
Director, Hydro-Electric Corporation
October 2016

Hydro-Electric Corporation
ABN 48 072 377 158

Our vision

Australia's leading clean energy business inspiring pride and building value for our owners, our customers and our people

Our values

We put people's health and **safety** first

We build value for our partners and customers through **innovation** and outstanding service

We behave with honesty and **integrity**

We work together, **respect** each other and value our diversity

We are **accountable** for our actions

We are committed to creating a **sustainable** future

Annual Report 2016

Contents

Entura's Natalie Williams participating in the CSIRO's Scientists and Mathematicians in Schools initiative (see page 40)

The year at a glance

Challenges

- Record-breaking low rainfall in spring 2015 affected hydropower generation storages.
- The prolonged outage of the Basslink interconnector affected our ability to import electricity for more than five months.
- Temporary diesel generation needed to be installed rapidly.
- Bushfires interrupted the operation and management of some of our power generation assets.
- High rainfall inflows posed challenges for managing our storages, and flooding caused some damage to our assets.
- We needed to keep the Tasmanian community and stakeholders informed throughout Tasmania's unprecedented energy supply challenge.
- Conditions in the National Electricity Market (NEM) were difficult in both retail and wholesale energy.

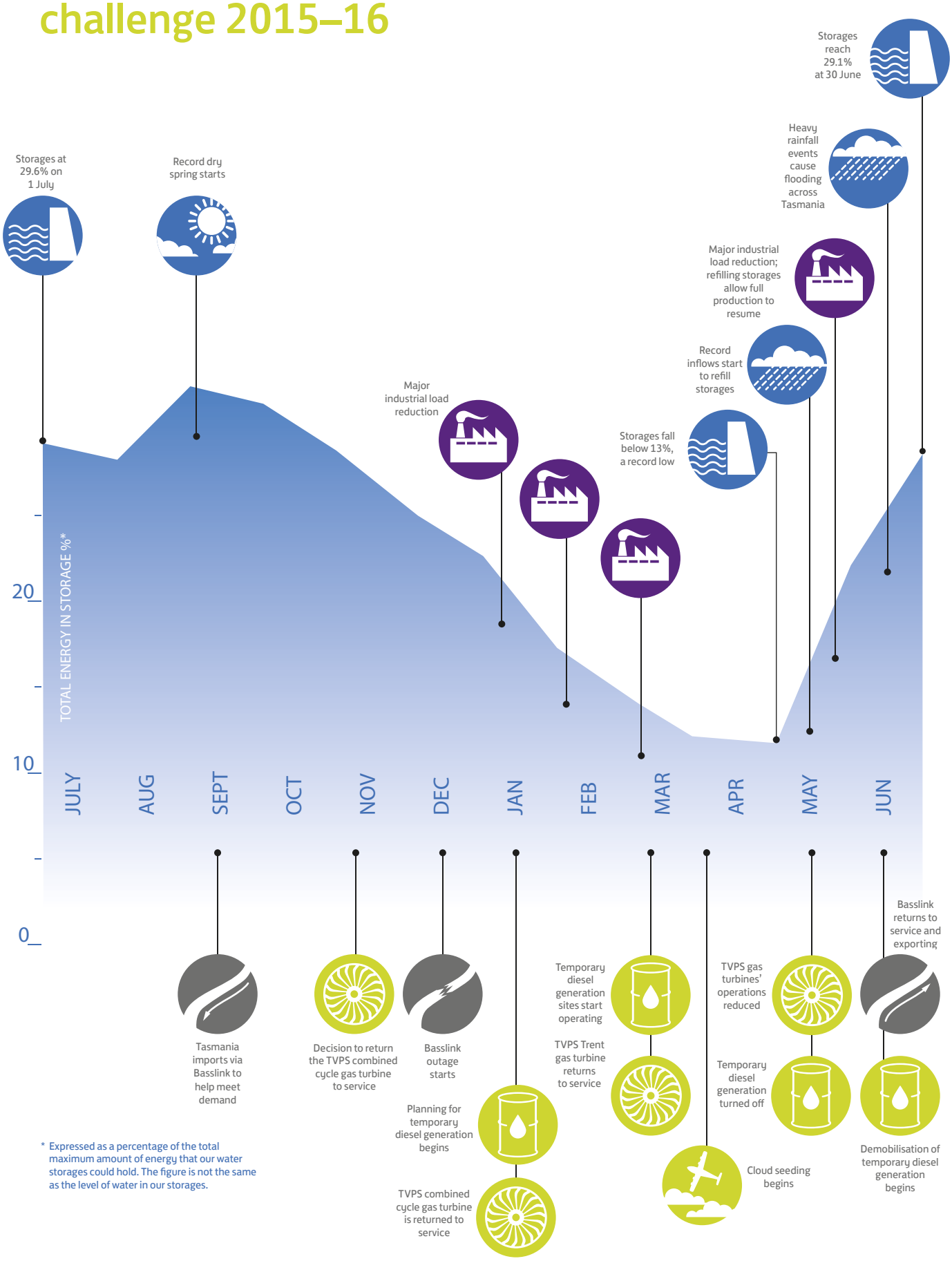
Achievements

- We delivered works to ensure the long-term sustainability of our generation assets, totalling $75 million of capital expenditure.
- In August 2015, Entura's Managing Director, Tammy Chu, was elected to the Board of the International Hydropower Association.
- Our employees and stakeholders made remarkable efforts to implement the Energy Supply Plan, including installing 220 MW of temporary diesel generation.
- Momentum Energy continued to attract more gas and electricity customers.
- We celebrated the centenary of our first power station, Waddamana A.
- Entura and Momentum Energy achieved market-leading results for customer satisfaction.
- Our Hybrid Off-grid Solutions team started to deploy innovative and effective remote-area power projects to customers on Rottnest Island in Western Australia and Coober Pedy in South Australia.

Awards

- Hydro Tasmania won the Corporate Award in the Tasmanian Volunteering Awards for the management and structure of our volunteering program, with participation by more than 25 per cent of employees.
- Hydro Tasmania's Alan Evans was awarded Company Secretary of the Year in the Climate Alliance Leadership Awards for his leadership in addressing and mitigating the challenges posed by climate change.
- Hydro Tasmania won the Tasmanian project of the year in the Australian Institute of Project Management's category of Construction/Engineering for our Rowallan Dam refurbishment project.
- Hydro Tasmania's Nicole Pace was awarded Vocational Student of the Year in the Tasmanian Training Awards.

Tasmania's energy supply challenge 2015–16



* Expressed as a percentage of the total maximum amount of energy that our water storages could hold. The figure is not the same as the level of water in our storages.

About this report

Hydro Tasmania's annual report integrates financial, environmental and social performance. It covers the financial year from 1 July 2015 to 30 June 2016.

The report complies with the requirements of the *Government Business Enterprises Act 1995* and the associated 'Treasurer's Instructions and Guidelines for Tasmanian Government Businesses'.

We recognise that Hydro Tasmania belongs to the people of Tasmania, and our actions affect all Tasmanians. We have prepared this report for a primary audience of the Tasmanian public, to report on our performance across all areas of our business activity for the 2015–16 financial year. Specific stakeholder groups—those interested in our organisation and this report—are listed on page 41.

Our sustainability vision

Hydro Tasmania is Australia's leading clean energy business. We are committed to balancing social, environmental and economic considerations to ensure the resilience of our business and the State of Tasmania. Our commitment is drawn from our values and our Sustainability Code, and frames business activities, policies and procedures. The structure of the annual report aligns with the seven principles of our Sustainability Code.

We believe that delivering on our seven sustainability principles will allow our business and our communities to prosper in a changing world.

In 2015–16 Hydro Tasmania reviewed and updated our Sustainability Code; we have also approved and implemented a Code of Ethical Behaviour. We regularly review these commitments and we ensure that they are communicated to all our employees and stakeholders. All employees are required to formally acknowledge their understanding and compliance with these codes after completing a formal induction process, in addition to ongoing training. (These statements GRI indicator G4-56 and have been assured by KPMG)

You can read more about our vision, values, codes and policies at www.hydro.com.au/about-us

Reflections on* yingina / *Great Lake

Measuring sustainability performance

Key issues of 2015–16

The content of Hydro Tasmania's annual report is determined by our reporting compliance requirements and by a set of key factors and concerns identified through 2015–16, both positive and negative, that we call 'material issues'. These significant issues are determined from the input of external stakeholders and from opinions within Hydro Tasmania. External stakeholder perspectives are gathered from customer surveys, media monitoring, community surveys and Tasmanian parliamentary committee hearings on government business enterprises. Hydro Tasmania's people identify issues through executive interviews, and from risk-management plans and operational plans. We determine the priority of issues by assessing how frequently they are raised and how significant they are to stakeholders. Our 'material issues' are listed on page 5.

Why we use the Global Reporting Initiative sustainability indicators

Hydro Tasmania has chosen to use the Global Reporting Initiative (GRI) for our annual reporting as it provides a globally accepted standard suite of indicators across a range of economic, social and environmental sustainability topics including some specific to electricity utilities. GRI is a non-profit organisation, founded by the United Nations Environment Program and The Investors and Environmentalists for Sustainable Prosperity. GRI offers a high level of transparency, enabling readers of our annual report to track our performance from year to year and to compare our performance with other companies that have adopted the same indicators. GRI guidelines are regularly reviewed to ensure they remain relevant to changes in sustainability management. Another benefit of GRI is the possibility of including third-party validation or assurance.

Hydro Tasmania has assessed that this report conforms to the 'in accordance' core level of GRI reporting. See the full GRI index on pages 123–4.

Assurance

External assurance provides valuable feedback for improving Hydro Tasmania's business performance, processes and systems, and provides greater confidence for our readers that our reporting is accurate, transparent and balanced. Hydro Tasmania engaged KPMG to assure this report against the widely used standard Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ASAE 3000). The assurance statement for this annual report is on pages 114–5.

Material issues

Table 1: Material issues for 2015–16

Sustainability Code principle	Material issue	Page
Economic	Managing the economic effects of the energy supply challenge	15
	Ensuring our financial strength	15
Governance	Managing the energy supply challenge	18
Customers	Building Tasmania's confidence in energy security	23
	Working closely with major industrial businesses in Tasmania	23
	Continuing to develop Momentum Energy	23
	Entura's provision of innovative client solutions, and progressing Entura's potential joint venture	24–5
	Developing our hybrid off-grid solutions	25
Assets and water resources	Managing highly variable water inflows	29
	Managing our assets under exceptional conditions	31
Environment and heritage	Monitoring increases in our greenhouse gas emissions	35
	Managing and limiting the environmental impacts of low lake levels	36
	Implementing our cultural heritage program	36
Community	Managing stakeholders' expectations concerning low lake levels and cloud seeding	39
	Working with suppliers to implement the Energy Supply Plan	40
	Contributing to Tasmanian communities	40
Our people	Implementing the Energy Supply Plan and responding to natural disasters	43
	Developing our culture and working arrangements	43

Low water level at Arthurs Lake

Our business

Jay Runciman from Hydro Tasmania and Brian Lehr from IPM undertaking turbine machining work at Meadowbank Power Station

Statement of Corporate Intent

The following Statement of Corporate Intent was agreed upon between Hydro Tasmania's Board and Shareholding Ministers during 2015–16 and includes performance targets which are updated each year. The 2016–17 Statement of Corporate intent, including updated performance targets, will be published on Hydro Tasmania's website.

Hydro Tasmania is the trading name of the Hydro-Electric Corporation, an integrated energy business owned by the State of Tasmania. The Minister for Energy has portfolio responsibility for Hydro Tasmania. Hydro Tasmania operates under the *Government Business Enterprises (GBE) Act 1995* and the *Hydro-Electric Corporation Act 1995*. The GBE Act requires Hydro Tasmania to prepare a Statement of Corporate Intent each year which provides an overview of the business and our strategic direction.

Our business

Hydro Tasmania's principal purpose is to 'efficiently generate, trade and sell electricity in the National Electricity Market (NEM)'. Our principal objectives are to perform our functions and exercise our powers to:

- be a successful business by operating in accordance with sound commercial practice and as efficiently as possible
- achieve a sustainable rate of return that maximises value for the State of Tasmania in accordance with the Corporate Plan and having regard to the economic and social objectives of the state.

Building on 100 years of experience in the electricity industry, the Hydro Tasmania group operates as one business focused on delivering value to our customers through our three brands: Hydro Tasmania (electricity generation and trading), Momentum Energy (retail) and Entura (professional services). Each brand operates as part of the integrated group to deliver the business strategy, enhance value and mitigate strategic risks so that Hydro Tasmania can deliver sustainable financial returns to the Tasmanian Government.

The ownership structure of the Hydro-Electric Corporation is shown in Figure 1 and business structure is shown in Figure 2.

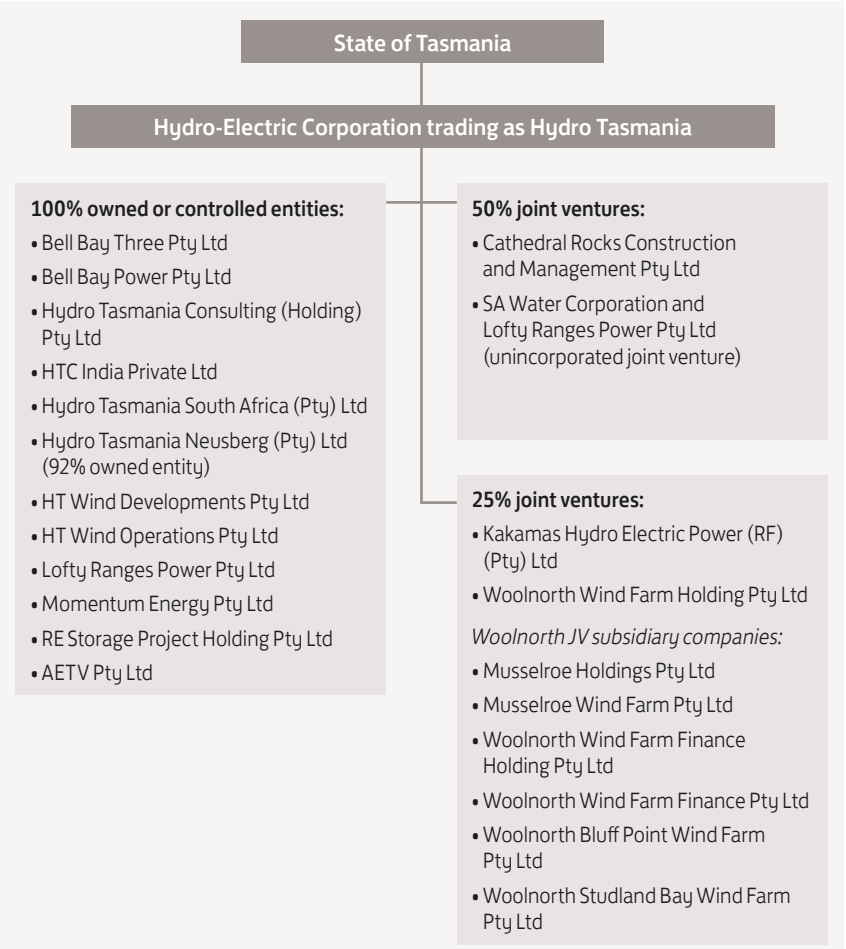


Figure 1: Hydro Tasmania's ownership structure

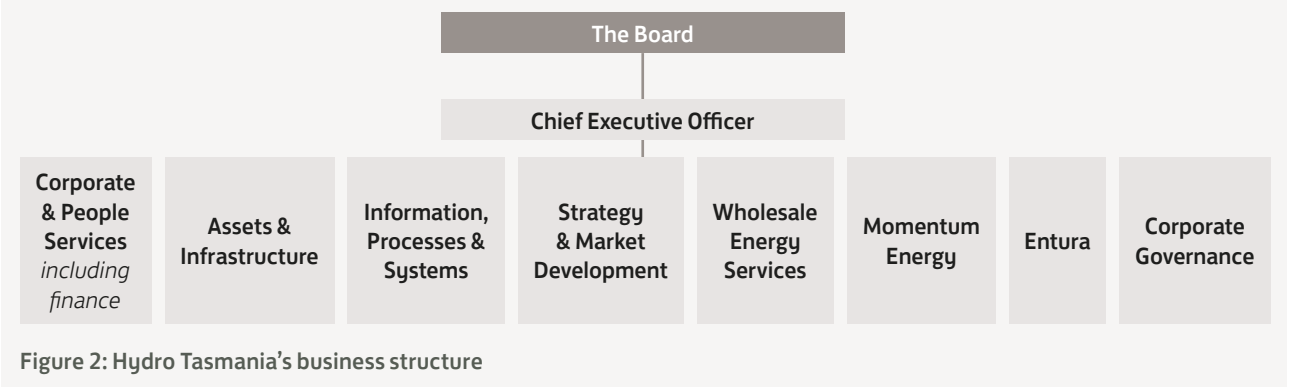


Figure 2: Hydro Tasmania's business structure

Our operations

Hydro Tasmania's main business is the generation of electricity from 30 hydropower stations and one gas-powered station and the sale of this electricity in the National Electricity Market (NEM). In 2015, 99.6 per cent of electricity generated was from hydropower and 0.4 per cent was from gas. Off-grid, the Bass Strait islands' electricity supply is generated from diesel, wind and solar. Hydro Tasmania is Australia's largest water manager, responsible for many significant lakes, rivers and smaller water bodies in six large catchments covering 35 per cent of Tasmania's land area (Figure 3).

Momentum Energy is based in Melbourne and sells electricity and energy services to business and residential customers in Victoria, South Australia, the Australian Capital Territory, Queensland and New South Wales, and gas to customers in Victoria. Momentum Energy provides retail services to the Bass Strait islands. We also operate a telesales centre in Tasmania, employing 25 people.

Woolnorth Wind Farm Holding Pty Ltd is a joint venture with Shenhua Clean Energy Holdings Pty Ltd (owned by Chinese energy company Shenhua Group). Our share is 25 per cent. The joint venture owns the Studland Bay, Bluff Point and Musselroe wind farms, with a combined generating capacity of 308 MW.

Entura provides engineering, scientific and management services relating to water management and energy supply to national and international clients as well as to Hydro Tasmania for operational and capital programs associated with our generation infrastructure and developments. Based at Cambridge in Tasmania, Entura has offices in Melbourne, Brisbane, India and South Africa and project offices in South Australia and the Northern Territory. Entura's international work extends across the Pacific Islands (including Papua New Guinea), New Zealand, South-east Asia, South Asia (principally India and Nepal) and southern Africa.

Strategic challenges

Hydro Tasmania operates in the highly dynamic and competitive NEM, which is undergoing a period of significant transformation. After a period of strong financial performance and record returns to Government, Hydro Tasmania is facing a period of reduced profitability largely arising from a number of external factors. These factors include:

- declining electricity demand and surplus supply in the NEM
- changes in the Australian gas industry
- a highly competitive national market for electricity generation and retail
- changing customer preferences
- uncertainties and change in national renewable energy and climate change policies
- subdued national market for consultancy services.

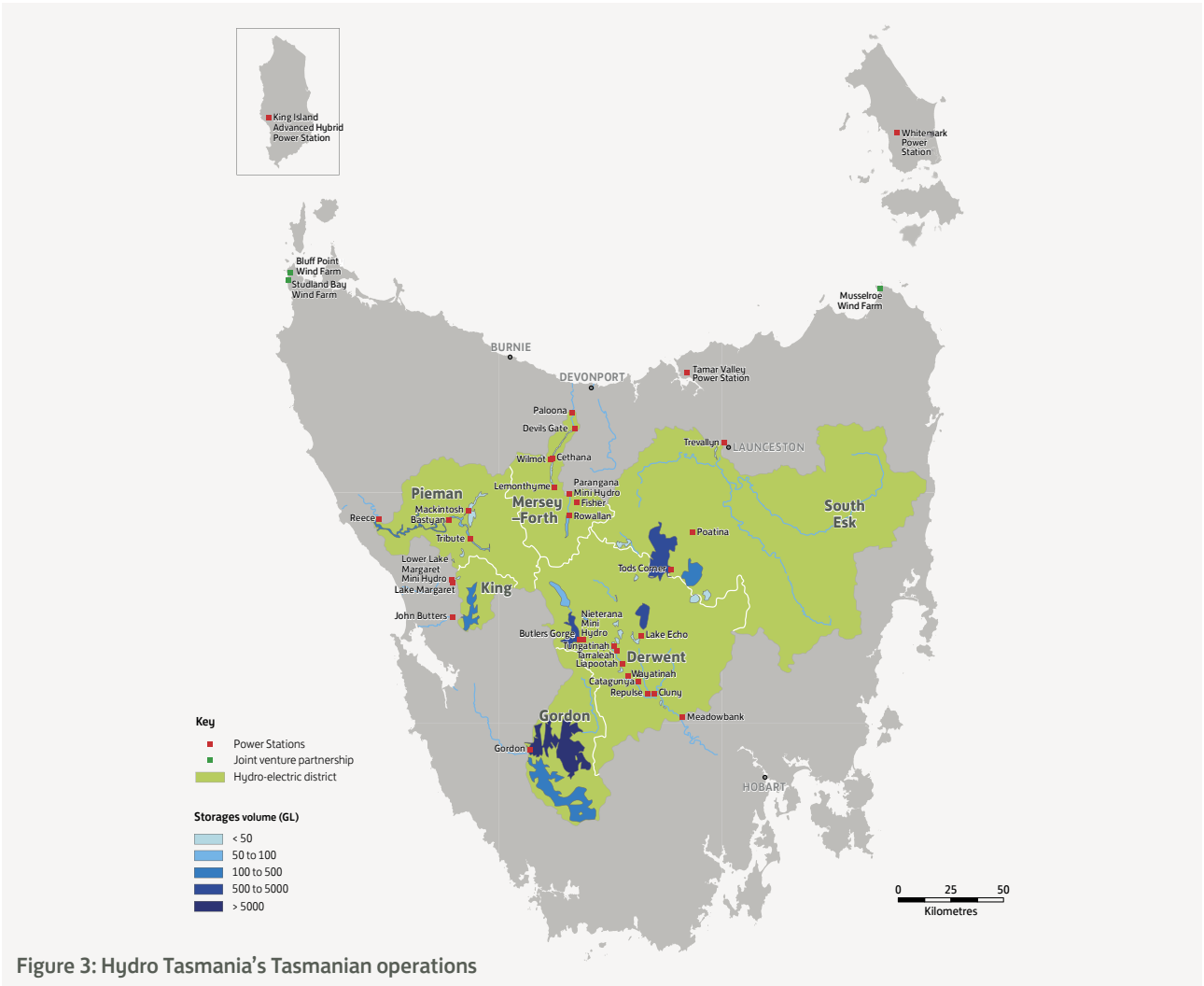


Figure 3: Hydro Tasmania's Tasmanian operations

Our strategic direction

Hydro Tasmania's vision is to be Australia's leading clean energy business, inspiring pride and building value for our owners, our customers and our people. Our strategy seeks to deliver on this vision by providing profitable revenue growth, ensuring a customer-first approach and maintaining our renewable energy generation assets for future generations.

Our strategy continues to evolve to ensure we can respond flexibly to the rapidly changing operating environment. We will pursue profitable revenue growth by increasing the value of our customer base in electricity, gas and energy services, and by reducing costs while continuing to manage business risks. Hydro Tasmania will continue to work closely with the Tasmanian Government to assist it to achieve its vision of restoring energy as a competitive advantage for Tasmania.

While our main focus will always be to meet the needs and expectations of our Tasmanian customers, our mainland retail brand Momentum Energy will continue to create value for all Tasmanians as we grow customer numbers on the mainland.

Hydro Tasmania is also pursuing emerging opportunities in hybrid off-grid solutions. Our King Island Renewable Energy Integration Project integrates technologies including wind, solar, energy storage, flywheels, dynamic load control and the use of biofuels, all managed by a fully automated proprietary control system. We are developing a 'Hybrid Energy Hub' on Flinders Island that will significantly increase renewable energy use on the island and reduce the use and importation of diesel. There is an international need for these renewable technologies to alleviate one of the world's great challenges—energy poverty. The technological advancements developed for the King Island Project position Hydro Tasmania well to take advantage of these opportunities.

The success of our business is underpinned by our people, the effective management of Hydro Tasmania's water resource and generation assets, and the systems and processes in place to support our business operation. Efficiencies in each of these areas are an essential part of our strategy and we are committed to making improvements in each of these areas so Hydro Tasmania can continue to be Australia's leading clean energy business.

Key performance indicators for the business for the next five years are set out in Table 28 on page 120. It should be noted that the 2016-19 performance indicators are subject to change and will be published on our website once agreed upon with our shareholding ministers.

Morning fog over yingina */ Great Lake*

Directors' Statement of Corporate Intent and Agreement of Shareholding Ministers

In signing this Statement of Corporate Intent, the Board of Hydro Tasmania commits to the targets for 2015–16 on a best endeavours basis, subject to section 24 of the GBE Act. The Board of Hydro Tasmania agrees to provide the Shareholding Ministers with information on progress against the targets included in this Statement of Corporate Intent, as required under the Reporting Guidelines.

Key performance indicators (KPIs)	2015–16 targets	Performance
Financial indicators		
Results before fair value movements and revaluations	$31 million	–$65 million
Capital expenditure	Satisfactory external validation of the 10-Year Asset Management Plan	The 2015 10-Year Asset Management Plan was reviewed by an external hydropower consultant in April 2015
	Capital expenditure to be at or below $113.6 million	$109.1 million
Return on equity[a]	0.68%	–9.78%
Cost savings target	Non-customer-facing OPEX less than $148 million	Non-customer-facing OPEX was $198 million. Excluding temporary generation and TVPS additional costs incurred during the energy supply challenge, non-customer-facing OPEX would have been $140 million
Retail profit before tax	Profit before tax >= budget of $35.3 million	$36.2 million
Non-financial indicators		
Lost-time injury	0	4[c]
Employee engagement score	Achieve employee satisfaction and motivation levels above historical average (50th percentile) of externally benchmarked culture and engagement measure	The 2016 culture and engagement survey was conducted in June 2016. Both employee satisfaction (40th percentile) and motivation (35th percentile) were below the national average
Hydro generation availability	Availability target of 80% achieved	89%[d]
Regulatory compliance obligations	Zero breaches resulting in enforced regulatory undertakings or penalties	0[e]
Returns to government (cash)		
Ordinary dividend[b]	$25 million	$25 million
Total other returns to government	$17 million	$17.5 million
Total returns to government	**$42 million**	**$42.5 million**

[a] *This calculation reflects net profit after tax divided by total equity*
[b] *Represents the dividend paid in the period, relating to performance in the previous period*
[c] *Further discussion of safety performance is presented on page 43–5*
[d] *The target for hydro generation availability was exceeded for the past financial year Please see Table 10 which provides availability performance over previous years*
[e] *While there were zero breaches in the past year, please see page 24 and 27 for comment on the infringement notices paid*

This Statement of Corporate Intent has been agreed between:

G.V. Every-Burns
Chairman Hydro Tasmania
on behalf of the Board

Hon Peter Gutwein MP
Treasurer

Hon Matthew Groom MP
Minister for Energy

Performance against shareholders' targets

Each year Hydro Tasmania works with our shareholders to agree on a Statement of Corporate Intent (www.hydro.com.au/about-us/publications), which documents performance indicators and targets. This table summarises performance against the 2015–16 targets.

Note that the employee engagement target has changed from the measure originally included in the 2015–16 Statement of Corporate Intent. Prior to 2015, the Hydro Tasmania group conducted annual employee engagement surveys. As Hydro Tasmania's strategy evolves in a complex and competitive market, we are taking a new and broader approach to seeking employee feedback. Our culture and engagement survey provides a profile of our current organisational culture to measure against our aspirations. This is the first year that we have run this survey format, and it will form a baseline upon which to improve. Ways to develop our culture and increase our performance will be identified and implemented in coming years.

Message from the Chairman and Chief Executive Officer

This year will be remembered as one in which Tasmania was hit by a series of weather and natural events that wrought devastation on communities.

Drought, fire and floods have all taken their toll across the state, and Hydro Tasmania extends sympathies to all affected by these extreme events.

Our business has not been immune.

These events have touched most areas of our business, so it stands to reason that as you read this annual report, they will be a constant theme.

The energy supply challenge

At the beginning of spring 2015 our total energy in storage was 32.6 per cent, and forecasts didn't give cause for any significant concern.

We went on to experience our worst ever spring.

The spring of 2015 broke the record for low inflows and yield since the first system-wide records began in 1924, and inflows to our storages were half the previous worst since reliable records are available (around 1950).

The severely dry conditions were compounded when Basslink failed unexpectedly on 20 December 2015.

The probability of such a combination of events, prior to it eventuating, was at least as low as 1 in 3000, based on historical data and the coincidence of this low-inflow period with the first undersea cable fault in 10 years of operation. Our future planning will need an updated view on the probability of such events, given recent experience and possible effects of climate change.

The impact of these two events was further compounded by the extended duration of the cable outage. It lasted for 176 days, compared with previous advice from Basslink Pty Ltd that the duration would be 60 days.

Risk management and scale of response

Much has been said about how well prepared Tasmania was to manage through such a situation.

Left to right: Hydro Tasmania's Chief Executive Officer Stephen Davy and Chairman Grant Every-Burns

Hydro Tasmania plans for a wide range of contingencies. So the business was indeed prepared for a potential outage of Basslink and a period of low inflows.

What we experienced was well outside the range of credible scenarios, based on the best evidence available at the time.

As the situation unfolded, we implemented the Energy Supply Plan to ensure Tasmanian supply was maintained.

In late 2015, Tasmania had been importing up to 40 per cent of the state's energy needs across Basslink. Given the low inflows, and prior to the cable failure, we had begun the return to service from dry lay-up of the large combined cycle gas unit at the Tamar Valley Power Station for commercial reasons.

The failure of the interconnector, and growing uncertainty about when it would return to service, meant that we had to take further actions. We turned to temporary diesel generation as the most immediate and effective backup. We consulted with some of our major customers—Rio Tinto Bell Bay Aluminium, TEMCO and Norske Skog—all of whom entered into commercial agreements to reduce load. We are grateful for this support, which helped us manage supply and demand.

As the dry continued, parts of the state were hit by bushfire in January. While there was no significant damage to our generating infrastructure, fire did cut transmission lines, effectively putting some power stations temporarily out of action.

The Tasmanian Government, the public service, the workforces of Hydro Tasmania and TasNetworks, and the private sector all worked together, with broad community support. Hundreds of people worked long hours at multiple sites, often in trying conditions, to protect Tasmania's energy supply.

Even if the situation had worsened, Hydro Tasmania's management of the situation gave confidence that energy supply could be assured.

Financial

There's no question that taking the measures we did to ensure energy supply came at a substantial cost. However, that cost has to be weighed against the absolute importance of maintaining confidence in energy supply given its social and economic significance.

The net cost (upper bound) of responding to the energy supply challenge is between $140 million and $180 million, including an offsetting reduction in Basslink costs. Most of the impact of responding to the energy supply challenge occurred in the 2015–16 financial year, with some cost carried over to 2016–17.

The Tasmanian Government has asked the Public Accounts Committee (PAC) to review the financial sustainability of government businesses including the recent energy supply challenge. Hydro Tasmania has been open, honest and transparent with the PAC as it investigates. We look forward to continuing to work with the committee and assist in its deliberations.

Hydro Tasmania's underlying result for 2015–16 was a loss of $65.4 million (before tax, fair value adjustment and revaluations). The result was approximately $100 million below budget, and was largely driven by record low inflows in spring and the extended Basslink outage.

The accounting loss was $205.0 million, which is attributable to the negative revaluation of our electricity contracts.

However, the valuation of our generation assets went up as a result of a significant rise in the price of electricity and large-scale generation certificates in the National Electricity Market.

These two factors largely balanced out, resulting in a total comprehensive loss of $3.6 million.

The financial position of the Hydro Tasmania group remains strong. In the year ahead, Hydro Tasmania intends to build storages and target a break-even or small underlying profit for financial year 2016–17.

The State Budget projects no returns from Hydro Tasmania until financial year 2019–20. This is not to say that Hydro Tasmania will be unprofitable in that period, and we intend working closely with the Tasmanian Government to increase the financial strength of Hydro Tasmania for the benefit of all Tasmanians.

Devils Gate Dam spilling water after heavy rainfall

Rainfall and floods

When the rains did come, they came as a sustained deluge. May brought record inflows to our catchments, followed by devastating floods in June.

The damage to property and tragic loss of life resulting from this latest severe weather event are well known, and Tasmania is still recovering from the flooding.

There has been concern expressed about Hydro Tasmania undertaking a cloud seeding flight on 5 June, just prior to the floods. Cloud seeding was one part of the strategy to rebuild hydro storages after the period of extremely low inflows. The 5 June flight was targeting the Upper Derwent catchment, specifically Lake Echo, one of the storages that remained below its desired level. There were no flood warnings in effect for the Upper Derwent at the time of the flight.

Post-flight data analysis found the cloud seeding operation had no measurable effect on rainfall on 5 June because the cloud that was seeded contained significant ice and was already precipitating freely. This was conveyed in a report to the Tasmanian Government.

We take very seriously the concern that has been expressed in the community and understand that we have much work to do to rebuild confidence that we can conduct cloud seeding in a manner consistent with public expectations. A step in this process will be our participation, when required, in an inquiry into the floods.

The cloud seeding program was suspended after the 5 June flight, and will not resume until a full internal review of the program has been completed, including implementation of any appropriate improvements, and extensive engagement with stakeholders.

Securing Tasmania's energy future

On the back of record rainfall, storage recovery surged, from the low point in late April when storages fell below 13 per cent.

While this is pleasing, Hydro Tasmania is taking a conservative approach to management of water in storage.

Going forward we understand that the community expects energy security can be assured under similar conditions as were experienced in 2015–16 without returning to record low storage levels.

While the probability of it happening again is very low, it is appropriate to re-examine energy security in the light of significant changes to planning assumptions and what we have learned from this most recent experience.

A number of issues need to be better understood when considering the future state of Tasmania's energy sector:

- inflow variability and the possible impacts of climate change
- the future reliability of the Basslink cable, including possible maximum repair times
- the future energy supply mix in Tasmania.

The Tasmanian Government has established the Energy Security Taskforce to consider appropriate energy security choices for the state's future, including the contribution of hydro, new renewables, gas, and load management.

Pending the work of the Taskforce, we have made changes to how we manage storage levels.

It is our aim, given average inflows, to have total energy in storage at 30 per cent at 30 June 2017. We are confident that in the unlikely event of a recurrence of events similar to those experienced over the past year, energy supply will be met without a return to the low storage levels experienced in April this year.

We are also working with external experts to understand whether the events of the past 12 months are likely to be an outlier or a new normal in terms of rainfall variability.

Continuing to grow our business

In addition to managing the energy supply challenge, the Hydro Tasmania group has continued with many of its business-as-usual activities.

We have significantly progressed negotiations on a proposed joint venture for our consulting business Entura.

Our off-grid energy solutions work has gone from strength to strength, with active projects now underway on Flinders Island, Rottnest Island and at Coober Pedy, following the world-leading achievements of the King Island Renewable Energy Integration Project.

Giving back to the communities in which we live and work is important to our business. More than 25 per cent of Hydro Tasmania's employees actively volunteer in the community each year, through our community program. Hydro Tasmania was proud to be part of the inaugural Tasmanian Volunteering Awards and winner of the Corporate Award.

Our retail business, Momentum Energy, continues to strengthen in terms of customer acquisition in one of the most competitive retail markets in the world. Momentum has also returned a strong financial result, with a profit before tax of $36.2 million.

Conclusion

In my 45 years of experience in the power industry as a power engineer, senior executive and Board Director, I have rarely seen a situation more difficult than that recently faced by Tasmania. The combination of the extreme dry and the prolonged cable outage saw us face an unprecedented situation.

Despite how the situation was characterised by some, including suggestions we would not be able to keep the lights from going out, the people of Hydro Tasmania rose to this challenge and delivered solutions that protected the state and ensured energy demand continued to be met.

I have never seen a response so effectively executed, and I want to put on record my pride in the management team and all of our people involved in delivering the Energy Supply Plan. I thank my fellow Board members for the level of support given to me and the management team during this period of significant challenge.

I believe there are substantial learnings from events over the past year, both for our business and for Tasmania.

Hydro Tasmania and the state are coming through the most testing of times. We must not lose sight of what was achieved during that time, nor of the commitment of our business to continue to rely on the capability and loyalty of our people and to make a strong contribution to the state.

Grant Every-Burns
Chairman

We will learn from the events of the past year and help the Tasmanian community consider the future state of energy in Tasmania. We will do this by providing input to the Energy Security Taskforce and to government policy development.

The energy supply challenge was caused by an unprecedented and extremely rare combination of events.

It must be considered how much investment is prudent in 'stand ready' options on a year-to-year basis. We must avoid having Tasmania locked into long-term sub-optimal commercial arrangements.

Our job is to run a business for the benefit of Tasmania, and that includes doing the best we can financially in the commercial circumstances we face, while at the same time managing for longer term resilience.

Tasmania's renewable energy will be a key advantage for the state and to Australia as the world moves towards lower emissions. Tasmania will be well placed to benefit from this transition and to capitalise on the renewable energy opportunities that it will present.

Stephen Davy
Chief Executive Officer

Economic

Installation of the Trent open cycle gas turbine at TVPS

• Economic

Diesel generators installed at Que River, image courtesy of Aggreko

Managing the economic effects of the energy supply challenge

During the 2015–16 financial year, Hydro Tasmania faced an energy supply challenge. Tasmania received record low rainfall from September 2015 to April 2016, and the Basslink interconnector experienced an outage lasting from 20 December 2015 to 13 June 2016. The Basslink outage was longer than the original expectation of sixty days, based on the terms of the contract and initial advice from Basslink Pty Ltd.

In June 2016, Hydro Tasmania estimated the total cost of the combined impact of the low inflows and Basslink outage on Hydro Tasmania would be between $140 million and $180 million. As a result of the significant inflows and higher prices received in the second half of June, the actual cost will be somewhat less.

These financial impacts result from forgone electricity generation and sales, lost production and sales of large-scale generation certificates (LGCs), increased cost of generation for electricity sold, and a range of other costs. The adverse effect of these impacts is partially offset by reduced Basslink costs and some financial returns from weather hedges or insurances. These financial impacts are expected to occur over the 2015–16 and 2016–17 financial years, with the majority occurring in 2015–16. As a result of low inflows and the Basslink outage, the cost of additional electricity generation is expected to be approximately $47 million for gas-fired generation and approximately $64 million for diesel generation. The reduction in hydro generation resulted in fewer LGCs being produced, lowering the net value of LGCs generated by approximately $15 million.

Ensuring our financial strength

The 2015–16 budget projected a 30 June debt balance of $732 million. Managing the energy supply challenge resulted in an actual net debt balance of $827 million. Though higher than projected, this level of borrowing is still far below the letter-of-comfort limit of $1085 million provided by the state to the Tasmanian Public Finance Corporation (TASCORP).

During 2015–16, to consolidate and further enhance our financial strength, we extended our debt maturity portfolio and reduced interest expense by borrowing $150 million of debt at near record-low interest rates. We are well placed to reduce debt further, with a forecast equity injection of $50 million in 2016–17, greater certainty of the Renewable Energy Target and associated increased prices of LGCs, along with our ongoing commitment to prudent financial management.

We will work with the Tasmanian Government to explore further opportunities to improve our financial strength.

Financial results

Hydro Tasmania delivered a result before fair value adjustment and revaluations of –$65.4 million in 2015–16 (Table 2).

The result was driven by a number of events that occurred during the year. Record low spring inflows, followed by a 176-day Basslink outage, required supplementary generation from gas and diesel to mitigate the risk of a supply shortfall.

Hydro Tasmania conservatively estimates that the net cost of responding to the energy supply challenge is between $140 million and $180 million, including an offsetting reduction in Basslink costs. Most of the impact of responding to the energy supply challenge occurred in the 2015–16 financial year, with some cost carried over to 2016–17.

Operating cashflows declined in 2015–16 to $17.5 million, down from $25.5 million in 2014–15. We are forecasting an improvement in our operating cash flow over the 2016–17 year.

Capital expenditures were $109 million in 2015–16, $9 million more than 2014–15.

The total assets for the year were $5.9 billion compared with $5.2 billion in 2014–15. Increases in the market price of electricity resulted in a revaluation of the hydro generation assets.

Increases in the market price of electricity resulted in a $356 million revaluation of the Hydro generation assets through equity. This significantly contributed to the total comprehensive income result for 2015–16 being a small loss of $3.6 million.

Table 2: Financial results

Financial year ending 30 June	2012 $m	2013 $m	2014 $m	2015 $m	2016 $m
Result before fair value, impairment and tax	103.4	237.7	241.1	62.3	(65.4)
Profit/(loss) before tax	17.8[a]	(248.5)[a]	182.7	191.5	(292.3)
Comprehensive income/(loss)	161.6	(382.2)	147.9	169.2	(3.6)
Cash flow from operating activities	107.3	261.5	242.9	25.5	17.5
Net debt	857.0	866.0	851.0	839.3	827.4
Weighted average cost of debt	7.08%	6.88%	7.39%	6.67%	5.32%
Capital expenditure	186.1	164.0	118.3	100.7	109.1
Other expansion and acquisitions	114.4[b]	0	0	0	0
Total assets	5805	5123	5025	5198	5886

[a] Result before tax for 2012 and 2013 were adversely impacted by movements in the fair value of energy derivatives, and in 2013 by the impairment of generation assets

[b] Musselroe Wind Farm construction

The Hydro Tasmania group provides electricity services on the Bass Strait islands under a Community Service Obligation (CSO) funded by the Tasmanian Government. Retail services are provided by Momentum Energy. The CSO ensures that consumers on the Bass Strait islands receive electricity at a concessional and regulated price. In 2015–16 the net cost of the CSO to the Tasmanian Government was $11.3 million.

Returns to government

Total cash returns to the Tasmanian Government for 2015–16 were $42.5 million, a decrease of $169 million compared to 2014–15. This includes a dividend payment of $25 million, which was paid in 2015–16, but related to 2014–15 profit (Table 3).

Table 3: Returns to the Tasmanian Government (cash)

Financial year ending 30 June	2012 $m	2013 $m	2014 $m	2015 $m	2016 $m
Government guarantee fee	8.7	8.6	11.4	8.9	8.5
Income tax equivalent	54.8	52.8	104.2	80.1	5.0
Ordinary dividend[a]	49.0	50.7	116.0	118.6	25.0
Rates equivalent	3.5	3.6	3.8	3.9	4.0
Total returns	116.0[b]	115.7	235.4	211.5	42.5

[a] Represents the dividend paid in the period, relating to performance in the previous period

[b] Excluding stamp duty of $9.9 million. Stamp duty is generally not included in returns to government. It is specifically noted in 2012 as Hydro Tasmania was required to pay $9.9 million in relation to the sale of land associated with wind farms

Governance

Jesse Clark from Hydro Tasmania with Minister for Energy Matthew Groom discussing the installation of diesel generation at Catagunya

Left to right: Samantha Hogg, Stephen Davy, Tessa Jakszewicz, Grant Every-Burns and Saul Eslake

Managing the energy supply challenge

The unprecedented circumstances that contributed to the energy supply challenge in 2015–16 thoroughly tested our governance systems. Hydro Tasmania responded to this challenge with an Energy Supply Plan, which included a range of actions to allow us to minimise adverse impacts on the Tasmanian community. The objective of the Energy Supply Plan was to ensure electricity supply in the event of a prolonged Basslink outage, continued low rainfall and another contingency.

You can read more about the energy supply situation and our responses at www.hydro.com.au/energy/energy-supply-situation-and-response

Hydro Tasmania has provided a comprehensive submission addressing the terms of reference of an inquiry being conducted by the Public Accounts Committee into the financial position and performance of Tasmania's government-owned energy businesses. The Committee's inquiry, including public hearings and further requests for information, is ongoing.

We are committed to exploring potential avenues to help secure Tasmania's energy supply. We will work with the Tasmanian Energy Security Taskforce, announced by the Minister for Energy, the Honourable Matthew Groom, to enable this. The Taskforce will assess the risks to Tasmania's future energy security, and will report back to government with recommendations to help 'future-proof' Tasmania's energy security.

The Board

Grant Every-Burns – Chairman

Grant Every-Burns was appointed to the Board of Hydro Tasmania on 27 August 2012 and became Chairman of the Board on 13 October 2014. Mr Every-Burns brings more than 40 years of experience in the operation and maintenance of large power generation facilities. From 1996 to 2011 he was Chief Executive and Managing Director of Macquarie Generation, the nation's largest producer of electricity in that period. He has previously held directorships of the National Safety Council of Australia and the Energy Supply Association of Australia. Mr Every-Burns holds an Honours degree in Electrical Engineering and is a Fellow of the Australian Institute of Company Directors.

Stephen Davy – Chief Executive Officer, Director

Stephen Davy was appointed Chief Executive Officer at Hydro Tasmania on 5 September 2013 and has been with the business since 2005. Mr Davy previously led the trading and market operations of the business. Prior to his arrival at Hydro Tasmania, Mr Davy worked at Eraring Energy in New South Wales and in the banking industry. Mr Davy is a Director on the Australian Energy Council. Mr Davy holds an Honours degree in Physics and has previously been a member of the National Electricity Market's Reliability Panel.

Saul Eslake – Director

Saul Eslake was appointed to the Board of Hydro Tasmania on 19 March 2008. Mr Eslake was formerly the Chief Economist at the Bank of America Merrill Lynch Australia. Prior to taking up this role he was a Program Director at the Grattan Institute. He was previously Chief Economist of the Australia and New Zealand Banking Group (ANZ) for 14 years to July 2009. Mr Eslake was formerly Chair of the Tasmanian Arts Advisory Board. He holds an Honours degree in Economics from the University of Tasmania and a postgraduate Diploma in Applied Finance and Investment, and has completed the Senior Executive Program at the Columbia University Graduate School of Business in New York. Mr Eslake is a Senior Fellow of the Financial Services Institute of Australia and a member of the Australian Institute of Company Directors.

Samantha Hogg – Director

Samantha Hogg was appointed to the Board of Hydro Tasmania on 25 August 2015. Ms Hogg brings 25 years of experience in executive management across the resources and infrastructure sectors, and broad Australian and international experience in finance, marketing and strategic projects. Her most recent executive role was as Chief Financial Officer of Transurban through a period when the business grew to become a top 20 ASX company. Ms Hogg was also responsible for recapitalising the company in 2008 through the global financial crisis, and she successfully financed and transacted the $7.1 billion acquisition of Queensland Motorways Limited. She is a Fellow of the Australian Institute of Company Directors.

Tessa Jakszewicz – Director

Tessa Jakszewicz was appointed to the Board of Hydro Tasmania on 27 August 2012. Ms Jakszewicz is CEO of Landcare Australia Limited, an organisation that builds capacity for Landcare communities to better manage Australia's crucial land and water assets. Ms Jakszewicz plays a lead role in promoting Landcare to government, business and community. Prior to this, she was Deputy CEO at the Antarctic Climate and Ecosystems Cooperative Research Centre and previously a General Manager at Telstra. Ms Jakszewicz has a Master of Business Administration from Macquarie University, a Master of Science from the University of Bath, and a Bachelor of Science with Honours from the University of Sheffield. She is a Fellow of the Australian Institute of Company Directors and brings to Hydro Tasmania wide-ranging commercial experience predominantly in general management, marketing and business development.

Ken Hodgson – Director

Ken Hodgson was appointed to the Board of Hydro Tasmania on 13 June 2016. Mr Hodgson has extensive experience across the financial services market. He spent 28 years working at Westpac and National Australia Bank in their retail banking divisions, including in the roles of General Manager, Consumer Financial Services at Westpac and General Manager, Personal Financial Services at National Australia Bank. In both of these positions Mr Hodgson was responsible for driving the overall growth and profitability of two of the largest retail banking businesses in Australia. Prior to joining the Hydro Tasmania Board, he worked for AGL Energy Limited as Group General Manager, Retail Energy. Mr Hodgson has a strong record in managing large, complex retail businesses with significant stakeholder and financial accountability, and in developing and executing business strategies that deliver profitable and sustainable growth.

Board and Executive performance evaluation

In 2015 the Board of Hydro Tasmania commissioned an independent external provider to appraise the performance of the Board and its committees. During 2016 the Board will implement recommendations from the evaluation. The Board and the Board committees will carry out self-assessments in 2016–17.

Each director, including the Chairman, undergoes a formal performance evaluation, conducted by their peers, when their term of office is under consideration and they are seeking reappointment. The Chairman provides continuous individual feedback on performance to each director and is also subject to periodic assessment by the directors. The Board committees self-assess their performance in accordance with their terms of reference, usually annually. Following annual self-assessments, the Board will consider undertaking an external performance evaluation every fourth year.

Performance of the Chief Executive Officer and other senior executives is reviewed annually using robust, measurable and qualitative key performance indicators.

Director induction, education and training

Hydro Tasmania recognises the importance of ensuring our Board members are fully informed and understand all key developments relating to Hydro Tasmania's business, and the industry and environment in which we operate. Each new Board member receives a Board induction pack and meets with the Leadership Group and the Corporation Secretary for immediate access to introductory information. Other information, similar to that referenced in the 'Guidelines for Tasmanian Government Businesses on Director Induction, Education and Training' is provided in hard copy, where necessary. Electronic access to the main governance, organisation and Board administration documents and reference materials is available to Hydro Tasmania directors. This ensures that resources are up-to-date and at hand. Ongoing training and education for directors is provided in-house or through external providers as required.

Table 4: Board committee membership at 30 June 2016

Audit Committee	Risk Management Committee	Human Resources and Remuneration Committee
Samantha Hogg[a]	Saul Eslake[a]	Tessa Jakszewicz[a]
Grant Every-Burns	Grant Every-Burns	Grant Every-Burns
Saul Eslake	Stephen Davy	Stephen Davy
Tessa Jakszewicz	Stan Kalinko[c]	Stan Kalinko[c]
Janine Healey[b]	Janine Healey[b]	Janine Healey[b]

[a] Committee Chair
[b] Janine Healey – retired 31 August 2015
[c] Stan Kalinko – retired 16 December 2015

Table 5: Directors' meeting attendance 2015–16

	Board (regular and special meetings)		Audit Committee		Risk Management Committee		Human Resources and Remuneration Committee	
	A	B	A	B	A	B	A	B
Grant Every-Burns	16	16	5	5	4	4	5	5
Stephen Davy	16	15	NA	NA	4	4	5	5
Saul Eslake	16	15*	5	5	4	4	NA	NA
Tessa Jakszewicz	16	15*	5	4*	NA	NA	5	5
Samantha Hogg[a]	14	14	5	5	NA	NA	NA	NA
Stan Kalinko[b]	7	7	NA	NA	2	2	2	2
Ken Hodgson[c]	1	0*	NA	NA	NA	NA	NA	NA
Janine Healey[d]	3	3	1	1	NA	NA	NA	NA

A = Maximum number of meetings the director could have attended
B = Number of meetings attended
* = Leave of absence granted
[a] Samantha Hogg was appointed to the Board on 25 August 2015
[b] Stan Kalinko retired from the Board on 16 December 2015
[c] Ken Hodgson was appointed to the Board on 13 June 2016
[d] Janine Healey retired from the Board on 31 August 2015

Public interest disclosures

Under the *Public Interest Disclosures Act 2002* (the Act), Hydro Tasmania is required to report on any disclosures about improper conduct by its public officers or Hydro Tasmania. In accordance with the requirements of section 86 of the Act, Hydro Tasmania advises that:

a) Hydro Tasmania's procedures under the Act are available on the Hydro Tasmania website at www.hydro.com.au

b) no disclosures of public interest were made to Hydro Tasmania during the year

c) no public interest disclosures were investigated by Hydro Tasmania during the year

d) no disclosed matters were referred to Hydro Tasmania during the year by the Ombudsman

e) no disclosed matters were referred during the year by Hydro Tasmania to the Ombudsman to investigate

f) no investigations of disclosed matters were taken over by the Ombudsman from Hydro Tasmania during the year

g) there were no disclosed matters that Hydro Tasmania decided not to investigate during the year

h) there were no disclosed matters that were substantiated on investigation as there were no disclosed matters

i) The Ombudsman made no recommendations under the Act that relate to Hydro Tasmania.

Find more information on Hydro Tasmania's governance at www.hydro.com.au/about-us/governance

Leadership Group

Assets and Infrastructure

Chief Operating Officer: Evangelista Albertini

The Assets and Infrastructure team is responsible for the operation, maintenance and sustainable long-term management of Hydro Tasmania's generating assets. These assets comprise dams, hydropower stations, roads and bridges, extensive civil and water conveyance infrastructure, the generating and distribution assets on the Bass Strait islands and the gas-fired Tamar Valley Power Station. The team is also responsible for managing the critically important areas of safety, the environment and sustainability.

Corporate and People Services

Chief Financial Officer: Miles Smith

The Corporate and People Services team provides a range of services across the Hydro Tasmania group to support the efficient delivery of energy and consulting products to our customers. Services include finance, accounting and financial reporting as well as commercial advice. Also included are human resources, debt management, financial analysis, forecasting, legal counsel, enterprise risk, corporate compliance, trading risk management, procurement, fleet management, facilities management and internal audit.

Information, Processes and Systems

Chief Information Officer: Luke Stow

The Information, Processes and Systems team delivers information technology and information management services across the Hydro Tasmania group. The team leads improvement of internal processes and drives change initiatives to benefit the business. It sets strategic direction on information technology and provides advice on using technology for business innovation. It leads and advises the business on managing and protecting Hydro Tasmania's information assets.

Standing from left to right: Paul Geason, Miles Smith, Stephen Bendeich, Tammy Chu, Alan Evans, Luke Stow, Gerard Flack
Sitting from left to right: Stephen Davy, Evangelista Albertini, Hilary Fazackerley, Andrew Catchpole

Strategy and Market Development

Director Strategy and Market Development: Andrew Catchpole

The Strategy and Market Development team manages business strategy across the Hydro Tasmania group. The team supports wholesale, retail and professional services by identifying and commercialising new products and services in response to customer needs. It delivers wind development services and hybrid off-grid solutions. The team also manages Hydro Tasmania's brand, communications, community program, sponsorship, partnering, market policy and regulation.

Wholesale Energy Services

Director Wholesale Energy Services: Gerard Flack

The Wholesale Energy Services team trades and dispatches electricity and gas in the National Electricity Market. The team prudently manages Hydro Tasmania's water storages and gas supplies to fuel renewable and gas-fired generation assets. The team directly serves commercial and industrial customers and provides portfolio management (financial hedging) services to Momentum Energy to serve mass-market customers.

Entura

Managing Director: Tammy Chu

Entura is Hydro Tasmania's specialist power and water consulting firm. Entura works with local, national and international clients to deliver a full range of consulting services related to planning, designing, constructing, operating and maintaining all kinds of energy and water projects. Entura's areas of expertise include renewable energy, power engineering, hydropower, water infrastructure, and water and environmental management and planning.

Momentum Energy

Managing Director: Paul Geason

Momentum Energy is Hydro Tasmania's energy retailer on mainland Australia and the Bass Strait islands. Momentum serves electricity and gas customers in Victoria and electricity customers in New South Wales, South Australia, the Australian Capital Territory, Queensland and on the Bass Strait islands. Momentum is responsible for sales and marketing, provisioning and transfers, customer care and billing. Momentum employs more than 250 people, including 27 in a call centre in Cambridge, Tasmania. Momentum's profits are returned to Hydro Tasmania and contribute to maintaining and operating our renewable energy infrastructure.

Corporate Governance

Corporation Secretary: Alan Evans

The Corporate Governance team establishes, maintains and operates a best-practice governance framework and provides the secretariat function to Hydro Tasmania's Board, Board committees and subsidiary companies. It oversees corporate obligations, risk management, audit and compliance in conjunction with these respective teams.

Legal Services

General Counsel: Stephen Bendeich

The team provides legal support across the business, including legal advice, dispute management and transactional support.

People and Culture

Head of People and Culture: Hilary Fazackerley

The People and Culture team provides human-resources-related advice, programs, policy and support to assist the business to meet our strategic objectives. The team leads and manages people, culture and industrial relations strategies, and programs and activities to attract, manage, develop and retain our people.

Customers

Momentum Energy's exhibit at the Melbourne International Flower and Garden Show

Customers

Across Hydro Tasmania, we are refocusing business processes and evolving our culture to place customers at the centre of our business. This is because we believe customers in our chosen markets are the foundation of our future success. If we strive to keep our focus on customers, we believe we will meet the expectations of our shareholders and stakeholders. We exist to serve each home, business, industrial site and consulting client that we work with across Tasmania, Australia and overseas.

Building Tasmania's confidence in energy security

Hydro Tasmania responded to the energy supply challenge by implementing an Energy Supply Plan. The objective of this plan was to ensure electricity supply in the event of a prolonged Basslink outage, continued low rainfall and another contingency. We acknowledge that the unprecedented circumstances addressed by the Energy Supply Plan also caused concerns about energy security for many Tasmanian electricity customers. Throughout this difficult period, energy security was maintained with no impact to residential and business customers.

Working closely with major industrial businesses in Tasmania

Hydro Tasmania has a close relationship with the large users of electricity in Tasmania. These include four 'major industrial' businesses, Bell Bay Aluminium, Nyrstar, TEMCO and Norske Skog, which collectively consume almost 60 per cent of Tasmania's electricity.

As part of the Energy Supply Plan, Hydro Tasmania negotiated with the major industrial businesses, three of which voluntarily reduced their electricity load. No other energy users in Tasmania were directly affected during the energy supply challenge.

The initial load reductions began in January 2016; additional arrangements were reached in subsequent months and were extended as the Basslink return-to-service date was revised. These agreements provided for more than 100 MW of reduced load on a sustained basis.

Momentum Energy / 3AW Small Business Award winner, left to right : Momentum's Stuart Rainsford; winner Ken Morgan, Managing Director Two's A Crowd; 3AW announcer Darren James

In mid-May 2016, following several weeks of strong inflows, Hydro Tasmania negotiated with Bell Bay Aluminium and TEMCO that they could resume full production several weeks earlier than scheduled.

Voluntary load-reduction arrangements formed a part of the Energy Supply Plan. Reducing load is very effective for managing low inflows as it can be implemented more rapidly and at lower risk than other alternatives such as installing additional generation capacity. Hydro Tasmania is grateful to the customers that entered into these agreements.

Momentum Energy

Continuing to develop Momentum Energy

Retail markets are changing rapidly, presenting the challenges and opportunities of new competitors, disruptive technology, regulation changes and wholesale price fluctuations. In 2015–16, increasingly volatile wholesale markets created challenges for maintaining sustainable retail margins and a competitive market position.

Over the past year, Momentum Energy has made progress towards becoming a 'customer-centric' retail business, which is critical to creating a sustainable competitive advantage. We have completed a detailed 'blueprint' of the systems, processes and capabilities required to deliver outstanding customer experiences and competitiveness. Our new website allows customers to engage more easily with us online. Our newly created Priority Care team provides personalised service, allowing us to meet different customer needs.

Momentum supports the communities in which we operate. New sponsorship and partnership agreements allow us to support local schools, events and community organisations. More information is available at www.momentumenergy.com.au/about-us/sponsorship

Our 'Keeping Momentum' team ensures that we continue to respect and care for customers in financially vulnerable circumstances.

Momentum has expanded the use of the Net Promoter Score (NPS), which measures the likelihood of a customer to promote a business to others.

Post-call surveys in our Customer Care, Credit Collections and Sales call centres allow customers to provide feedback, enabling us to take immediate remedial action and launch initiatives to improve service. A particularly pleasing outcome in 2015–16 was a solid increase in NPS performance. This indicates that our improvements in customer focus have had a positive impact, reflected in increased sales and reduced churn.

We have continued to expand our customer base through acquiring new customers and retaining existing customers. We first started offering gas to Victorian customers in February 2015, which has been highly successful. This allowed us to strengthen our relationships with existing customers by becoming their sole energy provider, and to acquire more residential customers in Victoria.

Momentum Energy's connection to renewable energy

Momentum Energy is 100 per cent owned by Hydro Tasmania and profits contribute to maintaining our renewable energy assets.

In late 2015, we conducted an advertising campaign to increase focus on Momentum's connection to Hydro Tasmania. The Australian Competition and Consumer Commission (ACCC) raised concerns that the campaign may potentially mislead or confuse consumers regarding the source and attributes of electricity supplied by Momentum. Following a period of consultation, the ACCC issued Momentum with five infringement notices. For pragmatic commercial reasons Momentum agreed to pay these infringement notices without any admission to a breach of Australian Consumer Law.

We think it is important that consumers know that Momentum is part of and supports Australia's largest renewable energy business. We also recognise the need to avoid confusion about the attributes of the energy we supply, and we will endeavour to ensure that all representations to consumers are transparent and clear.

For more information on Momentum's products and services see www.momentumenergy.com.au

Entura

Entura's provision of innovative client solutions

The client is central to how Entura does business. In 2015–16, Entura made significant progress in our journey towards an increased focus on clients and better understanding their needs.

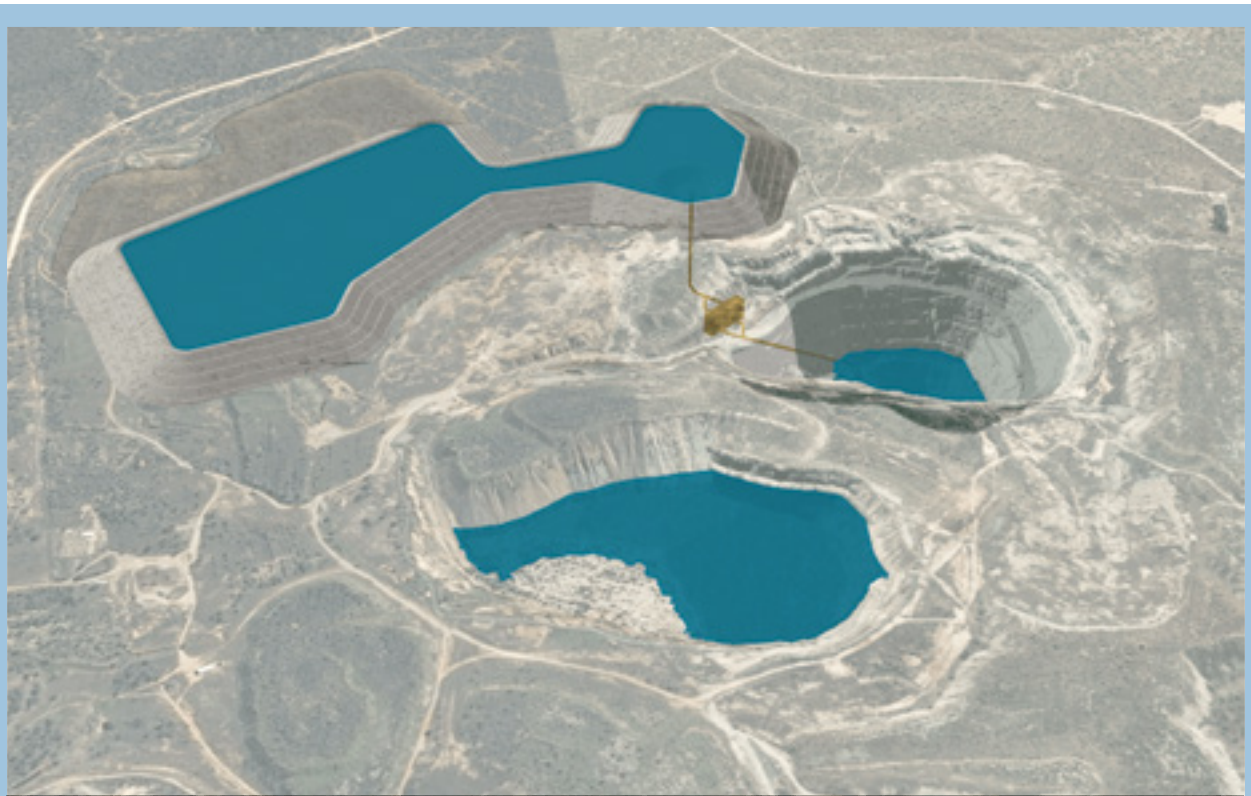
In 2015–16, Entura gained valuable insights from reviewing a number of projects and bids with national and international clients. Our annual Net Promoter Score, a quantitative measure gauging advocacy for Entura's services in the market, was +67, significantly above the industry average for services-related industries.

Entura's marketing and communication strategy delivered increased brand relevance and support for business development activities. Our digital communication strategy, underpinned by our social media activities, increased website traffic and engagement with potential clients. Our 'Natural Thinking' thought leadership program delivered a range of insights, with 20 articles used as catalysts for client conversations.

Entura's Malcolm McCausland taking water quality readings at Shannon Lagoon

Table 6: Significant customers for Entura in 2015–16

Client		
Tasmania	**National**	**International**
Hydro Tasmania	Genex Power, Queensland	Ok Tedi Mining, Papua New Guinea
TasWater	Clean Energy Council, Victoria	Government of Nepal
TasNetworks	Power and Water Corporation, Northern Territory	State Bank of India
Ausgrid	Goldwind Australia, New South Wales	Sarawak Energy Berhad, Malaysia
Tasmanian Irrigation	AusNet Services, Victoria	Trustpower, New Zealand
	Private equity provider (confidential)	Kalash Hydropower, South Asia
	Seqwater, Queensland	Asian Development Bank, Cook Islands
		UNITEN, Malaysia



The innovative design of the Kidston Pumped Storage Hydropower Project

Innovative pumped-storage hydropower

Entura had an extremely busy year supporting a wide range of Australian and overseas water and energy projects. In particular, Entura achieved groundbreaking success with Genex Power's Kidston Pumped Storage Hydropower Project in North Queensland.

Along with project partner HydroChina, Entura produced a design that can potentially increase the plant's head and peaking-generation capacity to up to 450 MW over a six-hour period, beating earlier expectations of 330 MW.

The new design also minimises cost and environmental risk.

The Kidston Project is being developed at the disused Kidston Gold Mine, and the feasibility study is supported by the Australian Renewable Energy Agency (ARENA). It will be one of only four pumped-storage hydro schemes in Australia.

Pumped-storage hydropower allows for very efficient large-scale energy storage. It could help alleviate challenges associated with more wind and solar power being introduced into the National Electricity Market.

Entura has worked on hydropower assets with clients in more than 30 countries, including India, Laos, Malaysia, Papua New Guinea, South Africa and Tajikistan.

Entura's reputation for providing innovative solutions to client problems continues to grow. The satisfaction of Entura's customers was demonstrated in 2015–16 with a record Net Promoter Score of +67, significantly above the industry average for services-related industries.

The *Entura clean energy and water institute* (ECEWI) delivered 11 training programs to 250 participants in 2015–16, covering topics such as hydropower development, dam safety, solar power, hydrology, irrigation and remote-area power systems. Since its inception in December 2012, ECEWI has trained 945 people across 53 programs, amassing 3571 training days. Participants were mainly international (73 per cent), primarily from South-East Asia, the Pacific and Africa.

Progressing Entura's potential joint venture

Over 2015–16, Hydro Tasmania has been exploring a potential joint venture with PowerChina Huadong and HydroChina International. The joint venture is expected to accelerate Entura's growth by providing access to a significant project workload for the proposed partners, and access to new markets through the broader international presence of the PowerChina group. This growth would also broaden the career opportunities available to Entura's people. An outcome of the negotiations is expected in 2016–17.

Developing our hybrid off-grid solutions

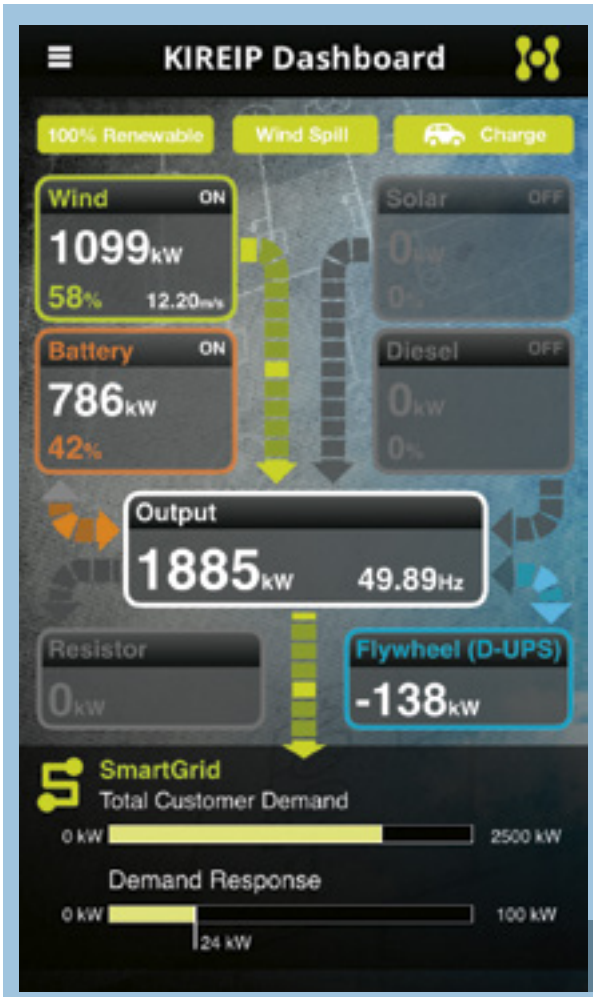
The Hybrid Off-grid Solutions team operates as an incubator business unit within Hydro Tasmania to commercialise the intellectual property created from the innovative King Island Renewable Energy Integration Project (KIREIP) (see inset). The site demonstrates to operators of island or remote grids that a high level of renewable energy use can be achieved using the right technologies, with no negative impact on reliability or security of supply. KIREIP has generated significant market interest, resulting in a number of new project engagements for the Hybrid Off-grid Solutions team.

We bring together core technical and commercial capability while drawing on other parts of Hydro Tasmania to offer advisory and project implementation services for utility and industrial customers. We can assist clients with a full spectrum of solutions from an owner–operator perspective, a unique offering in the market. The product is maturing rapidly as current projects are delivered.

Our major focus has been on the Flinders Hub project that aims to deploy the technologies developed on King Island in modules to reduce cost and time. This solution is now being deployed for customers on Rottnest Island in Western Australia and Coober Pedy in South Australia. The team is also tendering for advisory and implementation services in locations including Torres Strait, Cook Islands, Samoa and Lord Howe Island.
We are also investigating wider strategic deployments in the Australian mining market, and in Pacific and South-East Asian markets.

The intellectual property and products developed by the Hybrid Off-grid Solutions team—such as considerable knowledge of energy storage, smart-grid systems and data management—have wide applicability to the electricity industry and can benefit the whole Hydro Tasmania business.

Hydro Tasmania's electric vehicle in front of the innovative hybrid off-grid project site, photo courtesy of Rottnest Management Authority



Renewables displace diesel on King Island

Hydro Tasmania has achieved unprecedented success and global recognition for its renewable technology on King Island.

The King Island Renewable Energy Integration Project (KIREIP) has reduced the island's annual diesel consumption by an average of 60 per cent, using wind and solar energy via an advanced hybrid power system.

In 2015–16, the project created some outstanding new records. In the first five windy days of May, King Island was 95 per cent powered by renewable sources. The island spent almost 110 hours powered entirely by renewables. In that time, Hydro Tasmania only used about $865 worth of diesel. If the island had relied solely on diesel power, the cost would have been $62 000. And in February, King Island was entirely powered by renewable energy for a period of 61 hours straight.

KIREIP provides a hugely successful snapshot of how to develop Tasmania and Australia's clean energy future. It significantly reduces emissions, saves money for Hydro Tasmania (and therefore Tasmanian taxpayers), and promotes development of some of the most innovative renewable technology in the world.

In February 2016, the Australian Renewable Energy Agency identified more than 200 Australian and overseas projects. It named Hydro Tasmania's KIREIP among the best five.

Hydro Tasmania's KIREIP Dashboard phone app showing zero diesel operation

Table 7: Sustainability performance indicators—Customers

Indicator	2015–16 response	Explanatory notes	GRI Code
Number of customers	Hydro Tasmania does not hold an electricity retail licence in Tasmania; however, we have close working relationships with 'major industrial' customers. Momentum Energy has an increasing number of customers across Vic., NSW, SA and QLD, and has retail customers in the Bass Strait islands. Entura provided consulting services to more than 150 clients across Australia and overseas.	The exact number of Momentum Energy's customers cannot be disclosed due to the proprietary nature of the information	EU3
Number of people impacted by our projects	**Entura** Entura has primarily been involved in the feasibility and design of renewable energy projects over 2015–16, which has not, directly or indirectly, involved the displacement of Indigenous or local communities or resulted in impacts to their livelihoods. Where Entura has been involved in construction projects, these have not involved the displacement of Indigenous or local communities and our role has been as lender's/owner's engineer providing detailed design and due diligence. **Momentum Energy & Hydro Tasmania** Nil		EU22
Monetary value of significant fines	**Entura** Entura had one instance of non-compliance with a regulation and no instances of non-compliance with voluntary codes. The non-compliance related to late payment (i.e. outside of the 15-day payment period) of statutory fees by Entura India. This matter was settled and closed by the payment of a penalty valued at INR 18 657 (~AUD$393). **Momentum Energy** $54 000 relating to five infringements Total number of infringements resulting in a monetary fine: 5 Total number of reportable breaches not resulting in a fine: 68 Total number of non-reportable breaches: 33 Total number of breaches: 101 **Hydro Tasmania** Nil	Momentum provided compensation to customers in relation to wrongful disconnection payments for non-compliance with Energy Retail Code (Victoria) obligations, which did not result in a monetary fine payable to the regulator	PR9[a]
Number of residential disconnections for non-payment	Length of time between arrangement of payment and reconnection / Number of disconnections: NEM / Bass Strait islands < 48 hours: 314 / 0 48 hours to 1 week: 81 / 0 1 week to 1 month: 122 / 1 1 month to 1 year: 71 / 2 No payment: 576 / 7	In relation to length of time between arrangement of payment and reconnection, we currently use the date of receipt, not the date of payment by the customer. This generally shows as 1–3 days after the reconnection	EU27

[a] KPMG has assured this data

Assets and water resources

Installing a new turbine runner at Meadowbank Power Station

Assets and water resources

We assess and adapt how we manage our water resources and our electricity-generation assets in a changing climate and a changing energy market by actively balancing sustainable production, whole-of-life-cycle costs and business risks.

Basslink imports and exports

Hydro Tasmania uses the Basslink connection across Bass Strait to export and import electricity. Basslink is owned by Keppel Infrastructure Trust and operated through Basslink Pty Ltd.

In 2015–16, Basslink was out of service from 20 December 2015 until 13 June 2016. When balanced across the entire year, imports and exports of energy across Basslink resulted in a net import of energy of 588 GWh. Total exports were 479 GWh and total imports were 1067 GWh (Table 8).

Table 8: Basslink imports and exports at 30 June

Financial year ending 30 June	2012	2013	2014	2015	2016
Export (GWh)	986	2293	3113	725	479[b]
Import (GWh)	1262	251	20	2141	1067
Net[a] (GWh)	–276	2042	3093	–1417	–588

[a] Positive numbers indicate net export; negative numbers indicate net import
[b] Basslink out of service 20 December 2015 to 13 June 2016

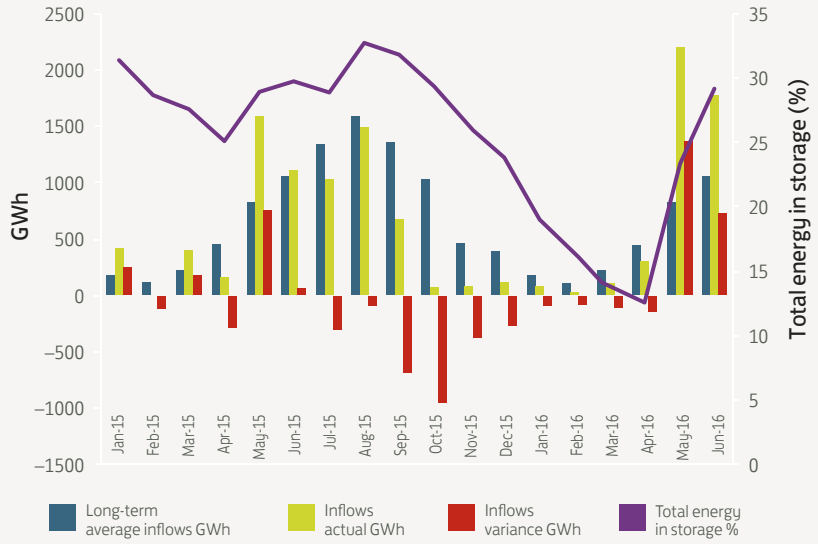


Figure 4: Actual vs budgeted inflows, January 2015 – June 2016

Managing highly variable water inflows

Before the Basslink fault

Hydro Tasmania was a net exporter across Basslink with more exports than imports in July and August 2015. Figure 4 charts total energy in storage (TEIS) along with actual and long-term-average inflows. By the end of August 2015, Hydro Tasmania's smaller head storages were around 10 per cent above their seasonal target, and the system was operated accordingly, generating heavily from the stations associated with these storages to manage the risk of spill (i.e. water released from storage without generating electricity). When energy generated exceeded Tasmanian demand, it was exported across Basslink.

In September 2015, when it became clear that inflows into hydro storages were falling further behind the average, Hydro Tasmania reduced hydropower generation and Tasmania imported additional energy across Basslink. This helped to preserve hydro storage levels, although they continued to fall due to the severity of the dry conditions.

Between October 2015 and the Basslink fault occurring on 20 December 2015, Tasmania imported 839.1 GWh of energy across Basslink (the average import price was $37/MWh). In the same period, Tasmania exported only 10.4 GWh. This included 9 GWh in December when warmer weather in Victoria, combined with other drivers, pushed prices high enough to justify this action (the volume-weighted-average Victorian export price was $210/MWh; 9 GWh is equivalent to about one-third of one day's average demand in Tasmania).

Hydro Tasmania established a working group to oversee the response to the energy supply challenge. The group reviewed plant utilisation across the state, and assessed environmental risks and developed plans for various lakes. This review also explored deferring planned maintenance on hydro generation assets and initiating generation at the Tamar Valley Power Station (TVPS) using the combined cycle gas turbine (CCGT) unit.

As a result of the record dry spring, the Tasmanian Government convened the Water Storage Advisory Committee (WSAC) overseen by the Department of State Growth. Hydro Tasmania provided regular reports to this committee.

Prior to the Basslink fault, Hydro Tasmania was confident that the state's energy security would not be compromised leading up to winter 2016. This was based on our contingency plans and a scenario that included low inflows, planned maintenance outages, supply from TVPS and a Basslink outage of two months.

After the Basslink fault

Following the announcement of the Basslink fault on 22 December 2015, Hydro Tasmania formed the Energy Supply Management Team (core members included the CEO and executive managers of affected business areas). Additionally, the Tasmanian Government announced the establishment of the Cabinet Sub-Committee on Energy Security to be chaired by the Minister for Energy.

Basslink was unable to return to service within the expected repair period of two months, the timeframe advised to the National Electricity Market.

On 14 January 2016, Basslink announced a one-month extension to the expected return date, and then (on 12 February 2016) advised that repair would take longer than expected, without providing an estimated repair date.

The compounding risks, which had never previously been experienced, required Hydro Tasmania to take more action. In consultation with the Tasmanian Government, the Energy Supply Plan was developed to meet Tasmanian energy demand. The plan was released in February 2016, and regular implementation updates were provided to the Tasmanian community by the Tasmanian Government and Hydro Tasmania through a variety of channels. Figure 5 details the timing and contribution of the measures documented in the Energy Supply Plan. For more information on the Energy Supply Plan visit www.hydro.com.au/energy/energy-supply-situation-and-response

Hydro Tasmania's responses included:

- resuming operation of all gas units at the Tamar Valley Power Station
- negotiating voluntary reductions of commercial load in cooperation with major industrial businesses
- working with TasNetworks and others across government to install and operate 220 MW of temporary diesel generation (which has now been decommissioned).

Hydro Tasmania began cloud seeding in April, one month earlier than in recent years, to help rebuild storages, which fell below 13% in late April 2016, a new historical low. Cloud seeding is discussed in more detail on page 39.

Inflows increased in early May 2016 and continued well above the long-term average for May and June.

Basslink returned to service on 13 June 2016, after an outage of 5 months and 23 days.

Inflows were so significant that the total energy in storage at 1 July 2016 was 29.1 per cent; only 0.5 per cent lower than at 1 July 2015 (Figures 6 and 7).

The prudent management of water in Hydro Tasmania's hydro system and the associated risks are being reviewed in light of the energy supply challenge. An important component of this review is to increase our understanding of the effects of both climate change and natural variability on rainfall patterns in Tasmania.

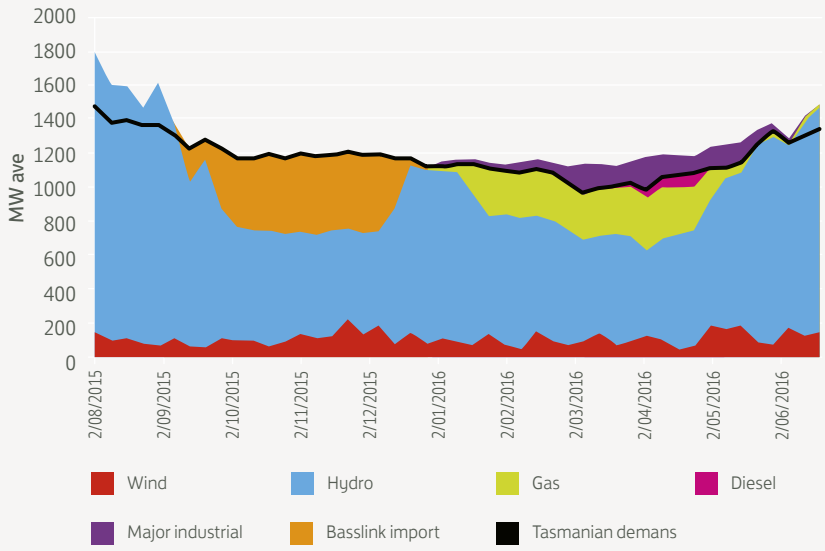


Figure 5: The changing generation supply used in the Energy Supply Plan

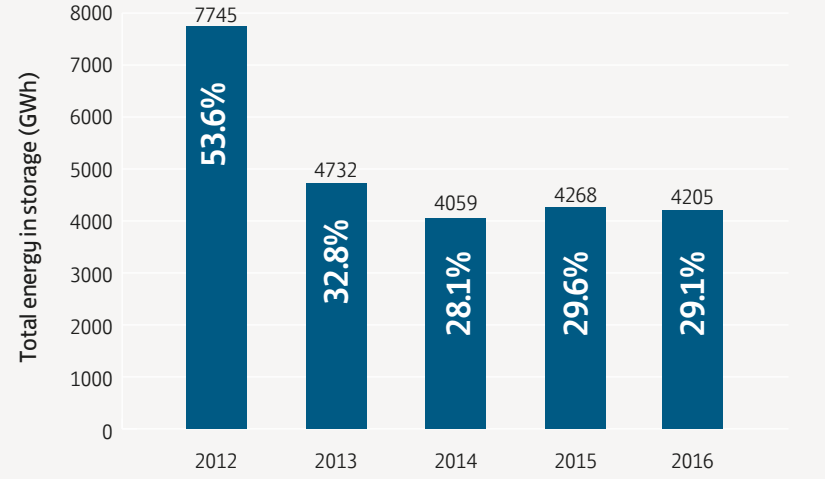


Figure 6: Total energy in storage at 1 July 2012–16

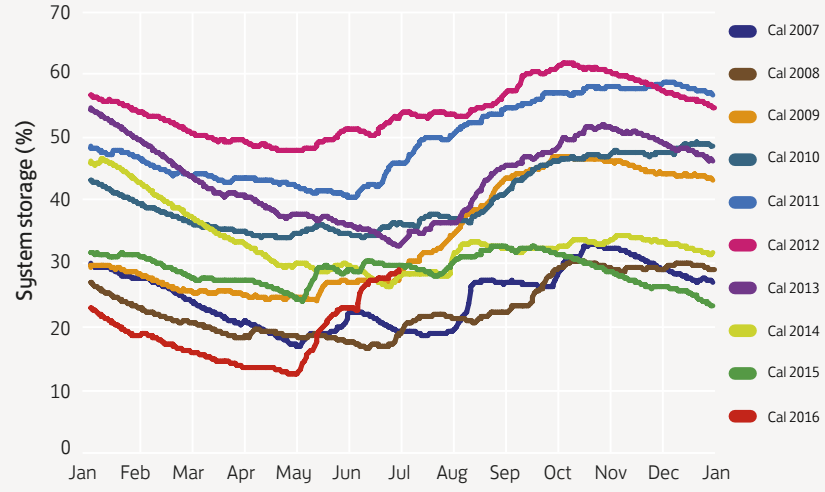


Figure 7: Storage levels 2007–16

Cal = calendar year
Note: Storages were managed at a higher levels leading up to the carbon price period of July 2012 to June 2014

Managing our assets under exceptional conditions

Our portfolio of generation assets has been thoroughly tested by the exceptional circumstances experienced during 2015–16, including bushfires, low lake levels, and high rainfall and inflows.

Bushfires in January 2016 damaged transmission and feeder lines in the Mersey–Forth Power Scheme. Hydro Tasmania worked closely with TasNetworks to reinstate operation at the Fisher Power Station within a week and at Rowallan Power Station in five weeks. Our vegetation management practices before the bushfires were instrumental in minimising damage to the Mersey–Forth Power Scheme.

During the unprecedented conditions of the energy supply challenge, some of our hydropower generation assets had to operate at lower lake levels and reduced flows. Hydro Tasmania actively monitored the condition and performance of our generating units to ensure a reliable supply of electricity to Tasmanian consumers. We contained and managed the potential risks associated with operations at low lake levels and low flows, including increased machine vibration, cavitation and increased amounts of silt entering machines.

Fire-damaged feeder lines in the Mersey–Forth Power Scheme

Heavy rainfall during May and June 2016 helped rebuild storages, while our smaller run-of-river dams filled rapidly. The inflows were so dramatic that, despite our generation assets operating at maximum capacity, some dams still spilled significant amounts of water. We experienced some flood damage to canals and flumes, an intake screen, and roads and access ways leading to our assets. Rectification works are underway.

University of Melbourne Research Fellow Kathryn Allen coring a slow-growing, but long-lived, King Billy Pine high in the Pieman catchment in western Tasmania

Ancient trees provide climate insights

Hydro Tasmania is using a novel and natural source of prehistorical data to boost our climate and rainfall modelling.

We have been collaborating with scientists from the University of Melbourne to conduct a dendrochronology study—otherwise known as tree-ring dating.

Studying wood samples from centuries-old native Tasmanian trees provides a detailed understanding of historical climate and rainfall patterns of the past 500+ years.

That's crucial information for us, as we rely on capturing and storing water to generate hydroelectricity. In recent years, climate change has added a level of complexity and uncertainty to that challenge.

To date, the story from the tree rings indicates that winter inflows have been trending down since the late 1800s, but summer dry periods have been shorter and less intense since 1900. On average, this means lower annual inflows into our storages, and therefore lower hydropower yields. But within these long-term trends, there are still very wet and dry fluctuations.

Gas generation—Tamar Valley Power Station

A component of the Energy Supply Plan was returning the combined cycle gas turbine (CCGT) to service. The unit had been in dry lay-up since June 2014. To make the CCGT operational required a new temporary workforce. The CCGT was successfully returned to service on 20 January 2016 and operated until 19 May 2016 when it was no longer required as there was ample hydro and wind generation available to meet Tasmanian demand. It remains in standby mode and can be brought online within two weeks.

In September 2014, Hydro Tasmania was advised by Rolls Royce that our open cycle gas turbine, a Rolls Royce 'Trent' unit, contained a design fault that required off-site repair. The unit was shipped to Abu Dhabi for repair in September 2015, prior to the Basslink fault. The 'Trent' was expected to return in mid-2016. However, as storage levels deteriorated, and Basslink remained out of service, Hydro Tasmania expedited its return to service by 31 March 2016.

The open cycle gas units have provided significant support both in terms of energy output and the ancillary services required for the stability of the electricity system. Some major components are currently in the USA for repair, as they deteriorated through use.

Temporary diesel generation

Between January and May 2016 Hydro Tasmania (in conjunction with other service providers) installed approximately 220 MW of temporary diesel generation at some of our power stations, TasNetworks substations and industrial sites around the state. Diesel generation was the most timely and cost-efficient option available for temporary generation, and also provided significant flexibility in selecting sites. The additional generation capacity was principally installed for risk mitigation against the continuation of low inflows and/or the Basslink outage.

The total diesel generation (which occurred from March to May 2016) is equivalent to 6.4 per cent of the April Tasmanian demand.

Due to heavy rainfall and associated inflows into hydro storages, diesel generation was not used after early May 2016, and decommissioning commenced in June.

Investing in our generation assets

During 2015–16, Hydro Tasmania spent more than $75 million on capital projects to sustain the safe operation, reliable performance and future capability of our ageing hydro generation portfolio. Our 10-Year Asset Management Plan prioritises risk and integrates maintenance, condition assessment and major works to maximise the value of our electricity generation portfolio.

In 2015–16, we refurbished machines at Cethana Power Station and upgraded machines at Meadowbank Power Station.

Figure 8: Temporary generation sites associated with the Energy Supply Plan

In 2016–17, we plan to refurbish machines at Tungatinah, Cluny, Wayatinah and Liapootah power stations. Planning and preparations for these works are well advanced.

Cambridge workshop facility

Hydro Tasmania acquired and started operating the former Alstom specialist engineering workshop facility at Cambridge from 11 May 2016.
The workshop facility was to have been closed after General Electric's acquisition of Alstom. The facility is unique in Tasmania in its capacity for the large machining work required on our assets, thereby reducing the cost and risks of our major plant refurbishments. Carrying out works at the Cambridge workshop offers many benefits over contracting works out to mainland workshops. It also provides substantial additional value in managing risk, reducing the costs of equipment storage, enabling prompt attention to emerging asset issues, providing important flexibility and retaining expertise in Tasmania.

Table 9: Sustainability performance indicators—Assets and water resources

Indicator	2015–16 response	Explanatory notes	GRI Code
Length of transmission and distribution lines	~730 km	Our only distribution lines are located on King and Flinders islands	EU4
Average generation efficiency of thermal plants	3CCGT 44.4% 104 35.9% FT8 29.7%	This relates to the Tamar Valley Power Station (TVPS)	EU11
Transmission and distribution losses as a percentage of total energy	7.5%	This relates to the Bass Strait islands only	EU12
Percentage of population unserved in licensed distribution or service areas	~1%	This indicator is estimated and only relates to the Bass Strait islands. Note that the business does not keep data on individuals not connected to the distribution network	EU26
Power outage frequency	Flinders Island = 3.55 King Island = 4.39	System Average Interruption Frequency Index (SAIFI): total system average number of interruptions per kVA	EU28
Water usage	778 763 m³	Relates to water used at TVPS, sourced from mains water supply	EN8[a]

Indicator	2011–12	2012–13	2013–14	2014–15	2015–16	Explanatory notes	GRI Code
Average power outage duration	N/A	Flinders Island = 760 King Island = 321	Flinders Island = 297 King Island = 1196	Flinders Island = 224 King Island = 531	Flinders Island = 194 King Island = 910	System Average Interruption Duration Index (SAIDI): total system average minutes off supply per kVA	EU29
Average plant availability factor (%)	87	92	91	86	89	This data relates to the hydropower system	EU30a
Hydropower system yield (GWh)	9538	7753	11 294	8466	8023	Water used as part of our operations is not consumed but is returned to the environment	

[a] KPMG has assured this data

Environment and heritage

Entura's Ray Brereton conducting a native fish survey

Environment and heritage

Hydro Tasmania is committed to leadership in environmental management including protecting biodiversity and conserving cultural heritage values. We adapt how we source, use and dispose of natural resources to manage the impacts of a changing climate.

Monitoring increases in our greenhouse gas emissions

As part of the Energy Supply Plan to manage the challenges of low inflows and an extended outage of Basslink, Hydro Tasmania returned the Tamar Valley Power Station combined cycle gas turbine to service and installed temporary diesel generation. Consequently, greenhouse gas emissions for Hydro Tasmania have increased in 2015–16 compared to the previous year (see Figure 9). The temporary diesel generation has since been decommissioned.

At 30 June 2016, total emissions were 421 165 tCO_2e. The emissions intensity over the financial year was 0.05 tCO_2e/MWh. This compares favourably to the average emissions intensity of the National Electricity Market (NEM) of 0.91 tCO_2e/MWh.

Atmospheric emissions from diesel combustion

In 2015–16 our atmospheric emissions increased significantly due to the installation of temporary diesel generation associated with the Energy Supply Plan. Table 10 details the amount and type of atmospheric emissions. King Island's diesel emissions in 2015–16 have reduced by 12 per cent compared to 2014–15. This is attributable to improvements associated with the King Island Renewable Energy Integration Project site and variations in wind conditions.

Temporary diesel generation installed at Catagunya Power Station, photo courtesy of Aggreko

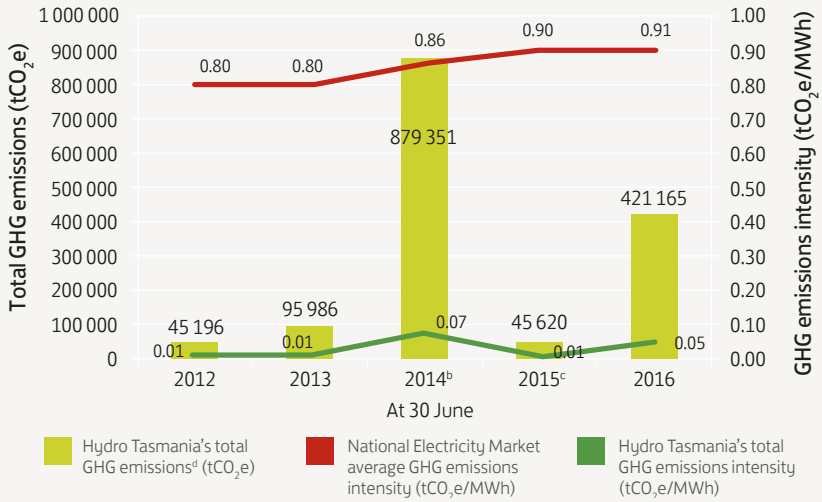


Figure 9: Total greenhouse gas (GHG) emissions[a] and intensity

[a] Reporting contained in this figure relates to GRI indicators EN15 and EN16

[b] Emissions in 2014 are significantly higher than other years due to the initial operational of the gas-fired Tamar Valley Power Station following its transfer to Hydro Tasmania in June 2013

[c] The dry lay-up of the TVPS combined cycle gas turbine during 2014–15 resulted in lower utilisation of gas generation and a reduction in the associated greenhouse gas emissions

[d] Total greenhouse gas emissions include direct emissions (408 008 tCO_2e), e.g. the combustion of fossil fuels to generate electricity, and also the emissions related to the electricity used by the Hydro Tasmania group (13 157 tCO_2e)

Table 10: Atmospheric emissions associated with diesel combustion[a]

	Temporary diesel generators (kg/year)[b]	Flinders Island (kg/year)	King Island (kg/year)
Oxides of nitrogen	485 854	28 580	50 936
Sulfur dioxide	13.3	0.784	1.397
Polycyclic aromatic hydrocarbons	0.003	0.0002	0.0003
Volatile organic compounds	20 375	1199	2136
Particulate matter	25 076	1475	2629

[a] Data in presented in the table relates to GRI indicator EN21

[b] Includes temporary diesel generators located at Catagunya, George Town, Meadowbank, Port Latta, Que River and Bell Bay

Managing and limiting the environmental impacts of low lake levels

Managing water storages

Low lake levels experienced in 2015–16 put pressure on aquatic species and lake ecosystems, particularly in *yingina* / Great Lake. The main concern was loss of complex habitat for threatened native fish and invertebrates. The complex habitat consists of rocky shorelines and aquatic vegetation. We engaged with experts from the University of Tasmania and Federation University; the Department of Primary Industry, Parks, Water and Environment (DPIPWE); independent researchers; and specialist Hydro Tasmania and Entura employees to update risk assessments and develop mitigation options. We continue to keep interested agencies informed, including the Inland Fisheries Service, DPIPWE, the Environmental Protection Agency (EPA), and the federal Department of the Environment and Energy.

Actions to reduce the impacts on *yingina* / Great Lake included reducing the rate at which we drew down the lake as much as practical and raising the Extreme Environmental Risk Zone to minimise long-term impacts on the ecosystem. Protecting these environmental values resulted in other storages being drawn to lower levels than they otherwise would have been. In 2016–17, we will be monitoring the recovery of the ecosystem.

In Woods Lake, our management focused on preventing impacts from low lake levels on the spawning of the native fish *Paragalaxias mesotes*, recently rediscovered in that water body, by ensuring that sufficient spawning habitat was available during the spawning season. Water levels were also managed to prevent the lake becoming turbid for a sustained period of time, due to wind stirring up sediment.

For more information on threatened species see www.hydro.com.au/environment/threatened-species

Lagoon of Islands rehabilitation

The rehabilitation of Lagoon of Islands continued in 2015–16. The lower turbidity and nutrient concentrations observed since the dam wall was removed (April 2013) continued in 2015–16, although the long-term targets for these parameters are not yet achieved. The target for the algal community (no bloom, and a diverse algal community) was achieved. Vegetation has continued to recolonise from natural seed sources. Thistles have been sprayed around the perimeter of the lagoon. The lagoon bed has dried each summer since decommissioning, which is inconsistent with the natural water regimes of the lagoon before it was dammed. In May 2016, the outflow was reconfigured to reduce the likelihood of the lagoon bed drying.

Implementing our cultural heritage program

Aboriginal heritage and values

During 2015–16 a small parcel of land including an important Aboriginal site was formally declared Aboriginal land. The site, located in southern Tasmania, has significant cultural value to the Aboriginal community. The Office of Aboriginal Affairs worked with Hydro Tasmania, the Aboriginal Land Council of Tasmania and an adjacent land-owner to facilitate the transfer.

We supported the nomination by the Tasmanian Aboriginal Centre of the dual naming of *yingina* / Great Lake, under the Government's 'Aboriginal and Dual Names Policy'. The dual naming acknowledges the rich Aboriginal heritage of the area, and is the first dual name to be applied to a feature on Hydro Tasmania land. Hydro Tasmania recognises the importance of adopting dual and Aboriginal names for geographical features, and we have developed an internal standard for encouraging the correct use.

Historic heritage management

Hydro Tasmania has adopted a new conservation management plan for the heritage-listed site of Lake Margaret Power Station and village. The new plan replaces the existing 2006 plan and provides a flexible but robust platform on which to build a sustainable future for the Lake Margaret Power Scheme, combining ongoing power generation with suitable public and commercial use.

May 2016 marked 100 years since Hydro Tasmania's first power station at Waddamana began full operation (see inset). Hydro Tasmania began a project to improve the interpretation and accessibility at the Waddamana Power Station heritage site, which was jointly funded by the federal government's Tourism Demand Driver Infrastructure Program.

Aboriginal Cultural Awareness Day

As part of our commitment to increasing respect and understanding, Hydro Tasmania senior employees participated in an Aboriginal cultural awareness day in November 2015. The cultural awareness experience was delivered by Koori Consultants in collaboration with members of the Tasmanian Aboriginal community, and was designed

Low water level in yingina */ Great Lake, March 2016*

Rising water level in yingina */ Great Lake, July 2016*

specifically for Hydro Tasmania as we manage land and waterways containing Aboriginal values and resources. The day aimed to foster greater understanding of traditional and contemporary cultural values and the challenges faced by Aboriginal people in achieving recognition and respect. It also provided an opportunity for Aboriginal community leaders to engage with leaders at Hydro Tasmania.

Waste management

To provide a baseline for compliant chemical management across Hydro Tasmania, Safety Rescue Technologies Australia (SRTA Pty Ltd) worked with our stores managers to develop a standard list of chemicals and substances required for operational activities. Audits were completed at all operational sites across mainland Tasmania. Chemicals and substances that were not identified in the standard list were disposed of appropriately. A course in chemical handling and management has been developed for Hydro Tasmania's operational workers, and will be delivered in August 2016.

Table 11: Wastes, 2015–16[a]

Material	Amount
Oil recycled (L)	4320
Oil disposed (L)	30 224[b]
PCB waste (L)	4000
Hydrocarbons (m^3)	9.68
Solid waste (t)	161
Liquid waste (L)	286 850 000[c]
Co-mingled paper/ cardboard recycling (L)	7.54

[a] Data in the table relates to GRI indicator EN23
[b] Oil disposed includes all oil and oily water included in a single figure
[c] Liquid waste relates to the cooling-tower water used at TVPS

The wastes listed in Table 11 are recycled or disposed of in various purpose-built facilities by registered contractors. Wastes that are recycled include waste oil from transformers (used as lime kiln fuel), hydraulics and turbines (used by local contractors for cooling and lubricating machinery) and paper/cardboard. Liquid waste that is not recycled is treated at the nearest wastewater-treatment plant. Non-recyclable solid waste is disposed of in landfill, with the exception of PCB waste, which is incinerated.

James Jacob was highly commended for this entry in the 'Waddamana in focus' photo competition, showing a Pelton wheel runner

Celebrating 100 years of Waddamana A

The Waddamana A Power Station turned 100 years old on 6 May 2016, inspiring great pride and nostalgia. It was the Hydro-Electric Commission's first power station and part of the drive towards the significant industrialisation of Tasmania.

The Waddamana story is one of true pioneering spirit, as well as human innovation and resilience. Waddamana A Power Station was a groundbreaking feat of engineering, built during the First World War in one of Australia's most remote and inhospitable locations.

After decades of faithful service, the Waddamana A Power Station was decommissioned in 1965, when more efficient technology took over. It reopened as a museum in 1988, and attracts about 6000 visitors a year. Original hydropower machinery has been restored, and historical photos and artefacts give visitors a taste of rugged Waddamana life in the early 1900s.

To mark its 100th birthday and rich heritage, Waddamana is getting an upgrade. The initial $100 000 refurbishment, part-funded by the Australian Government, will upgrade and modernise the museum's interpretation to focus on the dramatic history of the Great Lake Power Scheme.

The upgrade also includes a tourism heritage trail, giving visitors unprecedented insight into the heritage-listed hydropower scheme.

The Waddamana Museum will be a tourism mecca for people who want to appreciate an epic feat of historical engineering, and celebrate the platform that helped build an island community.

Table 12: Sustainability performance indicators—Environment and heritage

Indicator	2015–16 response	Explanatory notes	GRI Code
Materials used by weight or volume	**Gas:** 19 777 986 GJ **Bass Strait islands diesel usage:** King Island = 1 643 080 L Flinders Island = 921 930 L **Temporary diesel generation all sites:** 15 080 805 L		EN1
Effluents and waste—total water discharge by quality and destination	**Annual average of daily results:** Outfall flow = 33 m^3/hr Temperature = 16.7 °C pH = 7.7 Dissolved Oxygen = 98.9% **Annual average of monthly results:** Suspended Solids = 6.6 mg/L Biochemical Oxygen Demand = 2.1 mg/L Total Phosphorus = 0.1 mg/L Total Nitrogen = 0.5 mg/L	The Tamar Valley Power Station is licensed to discharge cooling-tower water into Donovans Bay on the Tamar River	EN22

Community

Olympian Jessica Fox taking part in the 2016 Australian Wildwater and Slalom Championships, photo courtesy of DT images

Community

Hydro Tasmania's communities extend from Tasmania across Australia to our international partnerships. They include our customers, members of the public, suppliers, business partners and other stakeholders. We participate in our communities through employee volunteering; sponsorships and in-kind support; buying and employing locally; partnering with like-minded organisations; and enabling access to the resources in our care.

Recognising the community impact of the energy supply challenge

Informing our communities

Throughout the energy supply challenge, Hydro Tasmania was committed to keeping stakeholders and residents informed. We contacted and worked with local councils, stakeholders and residents, advising them of the energy situation in the state, and inviting their feedback.

A dedicated page on our website (at www.hydro.com.au/energy/energy-supply-situation-and-response) provided information on the energy supply challenge, including frequently asked questions, community updates, and the opportunity to submit feedback or enquiries.

Managing stakeholders' expectations concerning low lake levels

Unprecedented low rainfall in 2015–16 affected all of our larger storages and a range of stakeholders who use or depend on this water for irrigation, angling, recreation and tourism. Throughout this period we kept stakeholders and the community informed through regular updates including face-to-face meetings, fact sheets and media.

Some popular angling spots were affected and, following advice from Marine and Safety Tasmania (MAST) and the Inland Fisheries Service (IFS), several boat ramps were closed for a period of time. An improved low-lake-level launching area was developed in partnership with IFS and installed at *yingina* / Great Lake.

An improved low-lake-level boat ramp at yingina */ Great Lake*

Recognising cloud seeding concerns

Cloud seeding is a technique Hydro Tasmania uses to increase rainfall in selected catchment areas. It involves releasing silver iodide into clouds. If cloud conditions are favourable it can cause rain, or speed up the start of rain. Due to the unprecedented dry conditions since September 2015, we began the cloud seeding season in April, one month earlier than in recent years, to help rebuild storages. To assist farmers, we also endeavoured to seed clouds over agricultural catchments.

On 5 and 6 June 2016, Tasmania experienced devastating floods. Hydro Tasmania is aware of the profound impact of the floods and we extend our sympathies to all who have been affected. Hydro Tasmania understands that the community holds concerns about our cloud seeding program in relation to the flooding.

As part of our cloud seeding program, a flight was undertaken on 5 June 2016. It targeted the Upper Derwent catchment, specifically Lake Echo, one of the storages that remained below the desired level. No flood warnings were in effect for the Upper Derwent at the time of the flight. Analysis of data from the flight demonstrated that this operation had no measurable impact on rainfall on that day because the cloud that was seeded already contained significant ice and was already precipitating freely.

The cloud seeding program is currently on hold and undergoing a full internal review. Information on our cloud seeding program, including detailed flight maps, is published on our website at www.hydro.com.au/water/cloud-seeding

Minimising community impacts of temporary diesel generation

Hydro Tasmania responded to the energy supply challenge with a range of actions to meet power demand in Tasmania. One of these was installing temporary diesel generation at various sites around the state.

To minimise impacts on local communities, the diesel generators were enclosed in customised shipping containers. Noise emissions were modelled to ensure that EPA limits would not be exceeded, even under the worst-case conditions at the nearest residence.

At most sites, 'chimneys' were placed on each container to disperse emissions away from ground level. At some sites, emissions were monitored to validate what was modelled and to ensure that generators were complying with relevant legislation.

Working with suppliers to implement the Energy Supply Plan

The Energy Supply Plan required Hydro Tasmania to implement solutions in an expedient and cost-effective manner. This meant working extensively with a range of existing suppliers and developing relationships with new suppliers. More than 120 direct suppliers helped us implement the temporary diesel generation, and additional suppliers assisted indirectly in the extended supply chain. TasNetworks, in particular, provided immense support, and many local companies contributed beyond their existing contractual arrangements to assist us. We are thankful for the support of our suppliers which has been integral to our ability to respond to the energy supply challenge.

Contributing to Tasmanian communities

Hydro Tasmania has a longstanding culture of participating in the communities in which our people live and work. Our history demonstrates a century of contributing to the cultural, social and economic fabric of Tasmania. Through major projects, consulting and retail services, philanthropy, sponsorships and employee volunteering, our communities now extend from Tasmania across Australia and include international partnerships.

We employ hundreds of Tasmanians and provide business to many Tasmanian firms. Our employee volunteering program supports community organisations by giving our time and sharing our expertise (see inset). We provide financial support to many organisations. Our in-kind support through water releases allows recreational activities at local, national and international levels to be held in Tasmania. We provide infrastructure for recreation such as walking tracks, boat ramps, camping grounds, jetties and pontoons.

We collaborate with special-interest groups, such as the fishing and paddling communities, farmers and land-owners, cultural and heritage groups, people directly affected by our operations, industry peers, partners and customers to make sure our business operates in the best interests of our owners, the people of Tasmania.

To find out more about water releases for recreational purposes, visit our website at www.hydro.com.au/water/water-releases-recreation

Skills in action

A key component of Hydro Tasmania's employee volunteering program is skilled volunteering. Our people are able to share their skills by providing pro bono professional expertise. One of these programs is Scientists and Mathematicians in Schools, a national program run by the CSIRO that matches science, technology, engineering and mathematics professionals with school teachers.

Natalie Williams, a surveyor with Entura, has worked for three years with Dr Simon James, a maths teacher at Mount Carmel College in Hobart. Simon and his students are able to see first-hand the real-life application of high-school maths in a workplace context. Simon creates interesting projects for his students and finds that Natalie's input provides a valuable added dimension. Natalie is able to share her enthusiasm for maths as well as pointing out the variety of careers available. She is also helping to shift the classroom perception that maths is 'uncool'.

Australian Wildwater and Slalom Championships

The 2016 Australian Wildwater and Slalom Championships were held in January 2016 on the Mersey River,

Making a difference through volunteering

Hydro Tasmania is determined to make a positive difference in the community.

We were particularly proud to be part of the inaugural Tasmanian Volunteering Awards.

As well as winning the Corporate Award, we sponsored the Excellence Award for best practice in the management of volunteers, won by Sheralyn Jackson from the Hobart City Mission.

More than 200 Hydro Tasmania staff (more than a quarter of our workforce) volunteer in the community each year, through our volunteering program.

Their contributions include:

- serving as volunteer firefighters, ambulance officers, and for the State Emergency Service
- helping students plan for their post-school years through the Smith Family's i-Track online mentoring program
- sorting and packing Christmas food and gifts with Colony 47 and the Salvation Army
- supporting groups such as Landcare Australia, Ronald McDonald House, the Cancer Council, the Migrant Resource Centre, the Heart Foundation, Bears of Hope, and Hobart City Mission
- lending pro bono professional expertise and advice
- mentoring local teachers in subjects such as engineering.

The Tasmanian Volunteering Awards were presented by the Governor of Tasmania, Her Excellency Professor the Honourable Kate Warner AM, at Government House on 9 May 2016.

Tasmanian Volunteering Awards winners, Hydro Tasmania's Rachel Johnson, Stephen Davy and Kate Hickey who received the Corporate Award with Sheralyn Jackson (second from left) from the Hobart City Mission, winner of the Hydro Tasmania Excellence Award

Forth River and Bradys Lake. This inaugural event was a collaboration among Canoe Tasmania, Hydro Tasmania and the Parks and Wildlife Service.

The region attracted 3000 commercial accommodation bed nights in the areas of Deloraine, Mole Creek, Sheffield and Forth, and significant expenditure by interstate visitors during their extended stays in Tasmania. A highlight of the event was the participation of Olympian Warwick Draper and the world-number-one-ranked female paddler and Olympic medallist, Jessica Fox.

Momentum Energy partnership with Landcare Australia

Momentum Energy has partnered with Landcare Australia to support environmental projects. Landcare Australia is a grassroots organisation dedicated to managing environmental issues in local communities from coast to country. Momentum donates $50 to Landcare Australia for every new natural gas and electricity customer who mentions the partnership.

Our people are also able to take advantage of corporate volunteering days and help propagate plants at the St Kilda Indigenous Nursery Cooperative which generates nearly 70 000 plants for local revegetation projects each year.

Read more on the Momentum website at www.momentumenergy.com.au/about-us/news/

Table 13: Stakeholder groups

Category	Includes[a]
Tasmanian Government	Premier, Treasurer and advisors
	Minister for Energy and advisors
	Tasmanian Government departments and regulators
	State Opposition and other parliamentarians
Australian and local government	Regulators
	Ministers, federal politicians
	State and Commonwealth Government departments
	Councils
Tasmanian electricity industry	Aurora Energy
	TasNetworks
Tasmanian community	Commercial users of Hydro Tasmania assets
	Recreational land and water users
	Environment and heritage groups
	Community organisations and individuals
	Education groups
	Tourism organisations
	Individual residents
Employees	Employees and contractors
	Former employees
	Unions
Customers, suppliers and partners	Wholesale and retail customers
	Major industrial customers
	Clients of consulting services
	Suppliers of goods and services
	Partners, consultants
Other	Media—national, state, local, industry
	Industry associations

[a] The table relates to GRI G4–24 and has been assured by KPMG

Table 14: Sustainability performance indicators—Community

Indicator	2011–12	2012–13	2013–14	2014–15	2015–16	Explanatory notes	GRI Code
Proportion of spending on local suppliers for the Hydro Tasmania group(%)	Mainland Australia: 51.8 Tasmania: 42.8 Overseas: 5.4	Mainland Australia: 68.2 Tasmania: 28.9 Overseas: 2.9	Mainland Australia: 51 Tasmania: 41 Overseas: 8	Mainland Australia: 32.4 Tasmania: 56.7 Overseas: 10.9	Mainland Australia: 48.1 Tasmania: 40.0 Overseas: 11.9	Includes Entura and Momentum Energy	EC9a
Proportion of spending on local suppliers at Momentum Energy (%)	Mainland Australia: 93.2 Tasmania: 0 Overseas: 6.8	Mainland Australia: 93.8 Tasmania: 0.6 Overseas: 5.5	Mainland Australia: 98.6 Tasmania: 0.2 Overseas: 1.2	Mainland Australia: 97.2 Tasmania: 0.7 Overseas: 2.1	Mainland Australia: 99.7 Tasmania: 0.2 Overseas: 0.1		EC9[a]
Community awareness of our primary role, electricity generation (%)	NA	57	NA	72	NA	Data gathered in a survey every second year	
Staff participation in community volunteering (%)	7.5	22.8	26.8	25.4	26.2		

[a] KPMG has assured this data

Our people

Members of Hydro Tasmania's graduate program touring Meadowbank Power Station

Implementing the Energy Supply Plan and responding to natural disasters

Hydro Tasmania is proud of our employees' efforts to implement the Energy Supply Plan within short time periods and volatile market conditions. The extraordinary hard work of our people ensured the successful installation of temporary generation capacity, minimised environmental impacts, and maintained business-as-usual activities. We recognise the impact on our employees' families during this time, and we proactively managed the additional workload and stress during this challenging period. Where necessary, we engaged external contractors and redeployed existing resources within the business. The careful redeployment included postponing some initiatives while ensuring that critical business-as-usual activities were not compromised.

Managing work health and safety at temporary diesel generation sites

The short timeframe for installing temporary diesel generation made specific management plans necessary for work health and safety and for responses to adverse circumstances. Hydro Tasmania engaged external experts to assist with managing diesel fuels and arranged to register the sites with the regulator.

Hydro Tasmania identified a need to ensure that employees and contractors at our sites and the public were not exposed to diesel liquid or exhaust above the Safe Work Australia standards. No significant workplace safety incidents occurred. Our employees, contractors and suppliers maintained admirable attitudes towards safety, given the time in which the project was required to be completed.

The Cambridge Workshop team joined Hydro Tasmania in May 2016

Table 15: Employees at 30 June

Contract type	2012	2013	2014	2015	2016
Full time	884	1015	965	943	942
Part time	85	107	123	99	105
Casual	25	24	21	20	18
Total	**994**	**1146**	**1109**	**1062**	**1065**

Developing our culture and working arrangements

Hydro Tasmania is building a stronger health and safety culture. Our behavioural safety program, SafeStart, has been introduced across the entire business and is generating safe work habits. We have identified a number of safety behaviour initiatives that will assist our contractor workforce, and these will be implemented next year. SafeStart Supporters group is a new activity that aims to increase participation.

In 2015–16 Hydro Tasmania launched a mental health and wellbeing initiative to increase awareness and reduce stigma surrounding mental health, and to enhance support mechanisms available to managers and employees. The program was attended by 205 managers and 819 employees. Monthly session topics included managing stress, building resilience, dealing with change, and supporting others in the workplace.

Hydro Tasmania developed and implemented a Leadership Competency Framework which guides all management training and aligns to employee performance and development reviews. Next year, we will assess all our managers against the Leadership Competency Framework, which will guide their leadership development.

In May 2016, we welcomed seven former Alstom employees who joined us as we took over Alstom's Cambridge engineering workshop facility after buyout by General Electric. Hydro Tasmania's decision to include the workshop as part of our operations means that this specialised engineering capacity is retained in Tasmania.

Entura's safe work achievement

The safety of our people and communities is the Hydro Tasmania group's top priority. That's why we were proud and delighted to achieve a remarkable record in the past financial year.

In September 2015, Hydro Tasmania's power and water consulting firm, Entura, notched up two million consecutive hours (approximately five years) without a single employee needing time off because of a workplace injury. Remarkably, that record then extended through to the end of the 2015–16 financial year.

The result is made more extraordinary by the fact that Entura consultants work and advise on some of the busiest and most complex electrical engineering sites in Australia, Asia and the world. These are often dynamic and large-scale work environments where plenty can go wrong if work safety isn't managed properly and diligently.

As well as being very pleasing from a human wellbeing perspective, the new safety record is a great tribute to Entura's rigorous health and safety protocols as well as our credentials as experts in providing safety advice.

Cold, snowy conditions are just one of the challenging working environments that Entura experiences

Workplace diversity

Hydro Tasmania recognises the value of workplace diversity. We aim to provide an environment free of discrimination and harassment, a fair and equitable recruitment process with merit-based promotions, a comprehensive remuneration framework, and employee benefits that support our diverse workforce.

In 2015–16, we focused on three aspects: gender diversity, cross-generational diversity and unconscious bias. Gender diversity includes development and advancement of our female employees with a key focus on recruiting and retaining female managers. Cross-generational diversity focuses on guiding employees and their managers to discuss phased retirement, capitalising on skills, financial planning and mentoring opportunities.

Lastly, our people managers attended training sessions to better understand negative unconscious bias which affects automatic assumptions and preferences towards attributes such as race, sex and age.

Entura's Enterprise Agreement

After a long period of negotiation, Entura's Enterprise Agreement was supported by 91 per cent of employees on 3 May 2016. The agreement provides certainty and fair conditions for employees and was approved by the Fair Work Commission on 7 July 2016. The overarching objectives for the new Enterprise Agreement were that it should be in the best interests of our employees and the business, be consistent with Entura's strategic objectives, and assist us to maintain our market competitiveness.

Our Bass Strait islands team working safely during a transformer replacement on King Island

Table 16: Safety statistics at June 30[a]

	2012	2013	2014	2015	2016	2016 breakdown					
	Total	Total	Total	Total	Total	Tasmania		Mainland Australia		International	
						Male	Female	Male	Female	Male	Female
Fatalities	0	0	0	0	0	0	0	0	0	0	0
Lost-time injury (LTI) frequency rate[b]	2.32	2.39	1.89	1.7	1.86	2	–	1	1	–	–
Medical treatment injury frequency rate[c g]	10.3	11.2	11.95	9.0	7.3	10	1	2	1	2	–
All injury frequency rate[d g]	38.2	32.2	27.9	33.8	22	34	3	5	4	2	–
Occupational disease rate[e g]	0	0.45	0	0.43	0.49	1	–	–	–	–	–
Hydro Tasmania staff LTI	2	2	2	3	3	1	–	1	1	–	–
Contractor LTI	3	4	2	1	1	1	–	–	–	–	–
Safety reporting index (SRI)[f]	–	3.8	4.52	14.6	20.2	N/A	N/A	N/A	N/A	N/A	N/A

[a] Data does not include Entura's India office. Further, we do not report on the lost-day rate as part of our safety performance monitoring

[b] Occupational health and safety data does not comply with GRI methodology as it is based on AS 1885, except the number of employees is based on full-time equivalent (FTE) rather than head count. Contractor incidents and hours are included in the LTI frequency rate. LTI is an absence from a complete shift due to workplace injury (scheduled work only)

The calculation for LTI frequency rate is

$$\text{LTI frequency rate} = \frac{(\text{number of lost-time injuries})}{(\text{number of hours worked})} \times 1\,000\,000$$

where number of hours worked = number of FTE x number of working days x number of hours in a working day (7.5)

[c] Medical treatment injury (MTI) is calculated as a rolling average and relates to receiving medical attention due to workplace injury and returning to work

[d] All injury frequency rate is calculated as a rolling average and relates to LTI, MTI and first-aid injury (FAI). In 2015–16 injuries no treatments (INT) are not included

[e] Calculated as a rolling monthly average with number of occurrences multiplied by 1 million hours divided by the number of employee and contractor hours worked

[f] Hydro Tasmania commenced recording and reporting on the SRI in July 2012. SRI is calculated as

$$\text{SRI} = \frac{(\text{number of hazards} + \text{near misses} + \text{safety observations})}{(\text{total number of injuries} + 1)}$$

[g] KPMG has assured this data

Table 17: Sustainability performance indicators—Our people

Indicator	2011–12	2012–13	2013–14	2014–15	2015–16	Explanatory notes	GRI Code
Employees covered by collective bargaining agreements (%)	64	55.3	53.8	54.2	54.8		G4–11
Contractors and subcontractor employees who have undergone relevant health and safety training (%)	100	100	100	100	100		EU18
Number of injuries and fatalities to the public involving company assets	Nil	Nil	Nil	Nil	Nil		EU25
Absentee rate (%)	2.13	2.3	1.95	2.1	2.9	Does not include external contractors	LA6[a]

[a] KPMG has assured this data

FINANCIAL REPORT

for the year ended 30 June 2016

Hydro-Electric Corporation
ARBN 072 377 158
ABN 48 072 377 158

Income Statement
for the year ended 30 June 2016

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
Revenue					
Sale of products and services	2(a)	1,335,863	1,467,161	453,443	585,197
Fair value gains	2(c)	10,586	16,050	196	–
Share of profit of joint venture entities		–	1,773	–	–
Other		21,580	15,289	20,872	19,594
Total revenue		1,368,029	1,500,273	474,511	604,791
Expenses					
Direct expenses		1,022,785	1,034,271	225,373	227,535
Labour		124,821	126,060	95,989	100,606
Depreciation and amortisation		100,666	92,918	94,873	87,728
Finance expenses	2(b)	58,219	71,927	91,306	70,799
Fair value losses	2(d)	296,151	118,977	289,253	109,449
Revaluation and impairment expenses / (gains)	2(e)	(58,697)	(232,066)	(73,370)	(197,442)
Share of loss of joint venture entities		102	–	–	–
Other		116,285	96,695	72,757	53,757
Total expenses		1,660,332	1,308,782	796,181	452,432
Profit/(loss) before income tax equivalent expense		(292,303)	191,491	(321,670)	152,359
Comprising:					
Result before fair value movements and revaluation expenses		(65,435)	62,352	(105,983)	64,366
Net fair value gains/(losses)		(285,565)	(102,927)	(289,057)	(109,449)
Revaluation and impairment (expenses) / gains		58,697	232,066	73,370	197,442
Profit/(loss) before income tax equivalent expense		(292,303)	191,491	(321,670)	152,359
Income tax equivalent expense/(benefit)	4(a)	(87,283)	54,816	(79,303)	67,827
Profit/(loss) after tax attributable to owners of the parent		(205,020)	136,675	(242,367)	84,532

The Income Statement is to be read in conjunction with the notes to and forming part of the financial report included on pages 53 to 109.

Statement of Comprehensive Income
for the year ended 30 June 2016

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
Profit/(loss) after tax attributable to owners of the parent		(205,020)	136,675	(242,367)	84,532
Other comprehensive income					
Items that will not be reclassified in subsequent years to operating result					
Revaluation of property, plant and equipment		356,131	–	356,131	–
Actuarial gain/(loss) on RBF provision	19	(66,838)	41,331	(66,838)	41,331
Income tax relating to components of other comprehensive income		(86,788)	(12,399)	(86,788)	(12,399)
Items that may be reclassified in subsequent years to operating result					
Foreign currency translation gain/(loss)		255	(26)	–	–
Fair value gain/(loss) on cash flow hedges		(1,873)	5,146	(1,873)	4,081
Income tax relating to components of other comprehensive income		485	(1,536)	562	(1,224)
Total other comprehensive income for the year, net of tax					
Total other comprehensive income		201,372	32,516	201,194	31,789
Total comprehensive income/(loss) attributable to the owners of the parent		(3,648)	169,191	(41,173)	116,321

The Statement of Comprehensive Income is to be read in conjunction with the notes to and forming part of the financial report included on pages 53 to 109.

Balance Sheet
as at 30 June 2016

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
Current assets					
Cash and cash equivalents		21,395	15,683	15,066	8,554
Receivables	6	380,872	250,476	215,135	99,076
Investments	7(a)	61,303	11	61,300	–
Inventories	8	3,113	2,539	3,113	2,539
Other financial assets	11(a)	237,272	134,129	237,214	134,091
Current tax asset	4(c)	26,105	25,876	26,105	25,876
Other	12(a)	11,982	17,079	4,521	8,603
Total current assets		742,042	445,793	562,454	278,739
Non-current assets					
Investments	7(b)	–	–	203,827	203,827
Investments in joint ventures	7(b)	63,804	68,556	–	–
Property plant and equipment	9	4,549,079	4,119,687	4,493,700	4,023,182
Other financial assets	11(b)	384,312	425,516	384,312	425,516
Intangible assets	10	79,546	88,400	76,468	85,173
Goodwill	13	16,396	16,396	–	–
Other	12(b)	51,307	33,185	–	–
Total non-current assets		5,144,444	4,751,740	5,158,307	4,737,698
TOTAL ASSETS		5,886,486	5,197,533	5,720,761	5,016,437
Current liabilities					
Payables	14	315,839	164,283	227,764	95,890
Interest-bearing liabilities	15(a)	60,720	65,403	60,720	65,403
Provisions	16(a)	94,863	100,003	40,497	38,043
Other financial liabilities	17(a)	394,312	142,210	394,312	142,210
Other	18	11,217	19,069	172,384	111,506
Total current liabilities		876,951	490,968	895,677	453,052
Non-current liabilities					
Interest-bearing liabilities	15(a)	849,380	789,612	849,380	789,612
Deferred tax liability	4(d)	564,199	569,678	661,944	654,854
Provisions	16(b)	484,636	401,704	370,507	303,886
Other financial liabilities	17(b)	1,015,613	891,216	1,015,613	891,216
Total non-current liabilities		2,913,828	2,652,210	2,897,444	2,639,568
TOTAL LIABILITIES		3,790,779	3,143,178	3,793,121	3,092,620
NET ASSETS		2,095,707	2,054,355	1,927,640	1,923,817
EQUITY					
Contributed equity		628,206	558,206	628,206	558,206
Reserves		346,391	(8,122)	346,523	(7,735)
Retained earnings		1,121,110	1,504,271	952,911	1,373,346
TOTAL EQUITY		2,095,707	2,054,355	1,927,640	1,923,817

The Balance Sheet is to be read in conjunction with the notes to and forming part of the financial report included on pages 53 to 109.

Cash Flow Statement
for the year ended 30 June 2016

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
CASH FLOW FROM OPERATING ACTIVITIES					
Inflows:					
Receipts from customers		1,210,307	1,470,704	342,529	584,360
Operating grants and subsidies received		11,584	9,605	11,584	9,605
Interest received		277	256	244	250
Outflows:					
Payments to suppliers and employees		(1,156,485)	(1,315,603)	(294,624)	(413,774)
Interest paid		(34,671)	(50,708)	(34,670)	(50,708)
Government guarantee fee		(8,483)	(8,719)	(8,483)	(8,719)
Income tax equivalent paid		(5,000)	(80,069)	(5,000)	(80,069)
NET CASH PROVIDED BY OPERATING ACTIVITIES	5(b)	17,529	25,466	11,580	40,945
CASH FLOW FROM INVESTING ACTIVITIES					
Inflows:					
Proceeds from sale of property, plant and equipment		10	567	11	593
Proceeds from financial derivatives		54,030	200	50,824	200
Proceeds from loans to associates		266	1,102	–	135
Net receipts of intercompany loans		–	–	12,005	–
Dividends from joint venture		4,650	2,156	–	–
Outflows:					
Payments for financial derivatives		–	(2,950)	–	(1,485)
Net payments of intercompany loans		–	–	–	(20,907)
Payments for property, plant and equipment		(109,078)	(100,698)	(106,205)	(96,072)
NET CASH USED IN INVESTING ACTIVITIES		(50,122)	(99,623)	(43,365)	(117,536)
CASH FLOW FROM FINANCING ACTIVITIES					
Inflows:					
Proceeds from Tascorp loans		290,200	475,369	290,200	475,369
Equity contributions received		70,000	205,000	70,000	205,000
Outflows:					
Repayment of Tascorp loans		(234,900)	(484,269)	(234,900)	(484,269)
Repayment of finance lease		(703)	(685)	(703)	(685)
Dividends paid		(25,000)	(118,576)	(25,000)	(118,576)
NET CASH USED IN FINANCING ACTIVITIES		99,597	76,839	99,597	76,839
NET (DECREASE)/INCREASE IN CASH		67,004	2,682	67,812	248
CASH AT BEGINNING OF THE YEAR		15,694	13,012	8,554	8,306
CASH AT END OF THE YEAR	5(a)	82,698	15,694	76,366	8,554

The Cash Flow Statement is to be read in conjunction with the notes to and forming part of the financial report included on pages 53 to 109.

Statement of Changes in Equity
for the year ended 30 June 2016

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
CONTRIBUTED EQUITY					
Balance at the beginning of the year		558,206	353,206	558,206	353,206
Equity contributions from the State of Tasmania		70,000	205,000	70,000	205,000
Balance at the end of the year		628,206	558,206	628,206	558,206
RESERVES					
Asset revaluation reserve					
Balance at the beginning of the year		–	–	–	–
Asset revaluation (decrement)/increment		356,131	–	356,131	–
Balance at the end of the year		356,131	–	356,131	–
Derivative revaluation reserve	1.2(j)				
Balance at the beginning of the year	1.2(r)	(7,735)	(12,881)	(7,735)	(11,816)
Forward exchange contracts		(1,873)	5,146	(1,873)	4,081
Balance at the end of the year		(9,608)	(7,735)	(9,608)	(7,735)
Foreign currency translation reserve					
Balance at the beginning of the year		(387)	(361)	–	–
Foreign currency translation		255	(26)	–	–
Balance at the end of the year		(132)	(387)	–	–
TOTAL RESERVES		346,391	(8,122)	346,523	(7,735)
RETAINED EARNINGS					
Balance at the beginning of the year		1,504,271	1,475,751	1,373,346	1,403,683
Net profit/(loss)		(205,020)	136,675	(242,367)	84,532
Dividend paid		(25,000)	(118,576)	(25,000)	(118,576)
Deferred income tax recognised directly in equity	4(b)	(86,303)	(13,935)	(86,226)	(13,623)
Actuarial gain on defined benefit plans	16	(66,838)	41,331	(66,838)	41,331
Other		–	(16,975)	(4)	(24,001)
Balance at the end of the year		1,121,110	1,504,271	952,911	1,373,346
TOTAL EQUITY		2,095,707	2,054,355	1,927,640	1,923,817

The Statement of Changes in Equity is to be read in conjunction with the notes to and forming part of the financial report included on pages 53 to 109.

1.1 DETAILS OF REPORTING ENTITY

The financial statements and notes thereto relate to Hydro-Electric Corporation (the Corporation), which is a Tasmanian Government Business Enterprise and a consolidated reporting entity. The Corporation was established as the Hydro-Electric Commission by the *Hydro-Electric Commission Act 1944* and was incorporated by the *Hydro-Electric Corporation Act 1995*. The Corporation trades using the business names Hydro Tasmania, Entura, and through the Corporations subsidiary, Momentum Energy Pty Ltd.

The Corporation's Australian Business Number is 48 072 377 158. Its principal place of business is 4 Elizabeth Street, Hobart, Tasmania.

The Corporation owns 55 major dams, 30 operating hydropower stations, the Tamar Valley gas-fired power station, and supplies electricity to Bass Strait islands via diesel and wind power generation. The Corporation sells energy to retail customers through its subsidiary, Momentum Energy Pty Ltd, trading in all regions of the National Electricity Market (NEM). The Corporation also operates the Entura consulting business.

At 30 June 2016 the Corporation had 1036 full-time equivalent employees (FTEs) (2015: 1061 FTEs) including 5 non-executive directors (2015: 5 FTEs).

The Corporation holds Australian Financial Services Licence number 279796. This licence authorises the Corporation to carry on a financial services business in accordance with the licence conditions.

The financial report for the year ended 30 June 2016 was adopted by the directors on 11 August 2016.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies which have been adopted in the preparation of these financial statements have been consistently applied by each entity in the consolidated group.

(a) Basis of preparation

The financial report is a general purpose financial report prepared on an accrual basis under the historical cost convention except for derivative financial assets and liabilities, inventory of environmental energy products and generation assets which are carried at fair value.

The carrying values of recognised assets and liabilities that are hedged are adjusted to record changes in the fair value attributable to the risks that are being hedged.

The financial report is prepared in accordance with:

- *Hydro-Electric Corporation Act 1995*;
- *Government Business Enterprises Act 1995* (GBE Act) and related Treasurer's Instructions;
- Australian Accounting Standards and interpretations; and
- Financial disclosure requirements of the *Corporations Act 2001*, where applicable to the operations of the Corporation and its subsidiaries, and other requirements of the law.

(b) Statement of compliance

The financial report is compliant with Australian Accounting Standards including the Australian equivalents to International Financial Reporting Standards (AIFRS).

In complying with AIFRS, the Corporation is ensuring that the consolidated financial statements and accompanying notes are also compliant with International Financial Reporting Standards (IFRS).

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

The following Australian Accounting Standards are applicable to the Corporation and have recently been issued or amended. As they are not yet effective, the Corporation has chosen not to adopt them for the year ended 30 June 2016:

Standard/Interpretation	**Effective for annual reporting periods beginning on or after**	**Expected to be initially applied in the financial year ending**
AASB 9 'Financial Instruments', and the relevant amending standards	1 January 2018	30 June 2019
AASB 15 'Revenue from Contracts with Customers', AASB 2014-5 'Amendments to Australian Accounting Standards arising from AASB 15' and AASB 2015-8 'Amendments to Australian Accounting Standards – Effective Date of AASB 15'	1 January 2018	30 June 2019
AASB 16 'Leases'	1 January 2019	30 June 2020
AASB 2014-3 'Amendments to Australian Accounting Standards – Accounting for Acquisitions of Interests in Joint Operations'	1 January 2016	30 June 2017
AASB 2014-4 'Amendments to Australian Accounting Standards – Clarification of Acceptable Methods of Depreciation and Amortisation'	1 January 2016	30 June 2017
AASB 2014-9 'Amendments to Australian Accounting Standards – Equity Method in Separate Financial Statements'	1 January 2016	30 June 2017
AASB 2014-10 'Amendments to Australian Accounting Standards – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture', AASB 2015-10 'Amendments to Australian Accounting Standards – Effective Date of Amendments to AASB 10 and AASB 128'	1 January 2018	30 June 2019
AASB 2015-1 'Amendments to Australian Accounting Standards – Annual Improvements to Australian Accounting Standards 2012-2014 Cycle'	1 January 2016	30 June 2017
AASB 2015-2 'Amendments to Australian Accounting Standards – Disclosure Initiative: Amendments to AASB 101'	1 January 2016	30 June 2017
AASB 2016-1 'Amendments to Australian Accounting Standards – Recognition of Deferred Tax Assets for Unrealised Losses'	1 January 2017	30 June 2018
AASB 2016-2 'Amendments to Australian Accounting Standards – Disclosure Initiative: Amendments to AASB 107'	1 January 2017	30 June 2018

Impact of changes to Australian Accounting Standards and Interpretations

AASB 9 'Financial Instruments', and the relevant amending standards

AASB 9 issued in December 2009 introduced new requirements for the classification and measurement of financial assets. AASB 9 was subsequently amended in December 2010 to include requirements for the classification and measurement of financial liabilities and for derecognition, and in December 2013 to include the new requirements for general hedge accounting. Another revised version of AASB 9 was issued in December 2014 mainly to include:

a) impairment requirements for financial assets and

b) limited amendments to the classification and measurement requirements by introducing a 'fair value through other comprehensive income' (FVTOCI) measurement category for certain simple debt instruments.

Key requirements of AASB 9:

- all recognised financial assets that are within the scope of AASB 139 'Financial Instruments: Recognition and Measurement' are required to be subsequently measured at amortised cost or fair value. Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortised cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets, and that have contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are measured at FVTOCI. All other debt investments and equity investments are measured at their fair value at the end of subsequent accounting periods. In addition, under AASB 9, entities may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading) in other comprehensive income, with only dividend income generally recognised in profit or loss.
- with regard to the measurement of financial liabilities designated as at fair value through profit or loss, AASB 9 requires that the amount of change in fair value of the financial liability that is attributable to changes in the credit risk of that liability is presented in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. Changes in fair value attributable to a financial liability's credit risk are not subsequently reclassified to profit or loss. Under AASB 139, the entire amount of the change in the fair value of the financial liability designated as fair value through profit or loss is presented in profit or loss.
- in relation to the impairment of financial assets, AASB 9 requires an expected credit loss model, as opposed to an incurred credit loss model under AASB 139. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised. The new general hedge accounting requirements retain the three types of hedge accounting mechanisms currently available in AASB 139. Under AASB 9, greater flexibility has been introduced to the types of transactions eligible for hedge accounting, specifically broadening the types of instruments that qualify for hedging instruments and the types of risk components of non-financial items that are eligible for hedge accounting. In addition, the effectiveness test has been overhauled and replaced with the principle of an 'economic relationship'. Retrospective assessment of hedge effectiveness is also no longer required. Enhanced disclosure requirements about an entity's risk management activities have also been introduced.

The directors of the Corporation anticipate that the application of AASB 9 in the future is not likely to have a material impact on amounts reported in respect of the Group's financial assets and financial liabilities. However, it is not practicable to provide a reasonable estimate of the effect of AASB 9 until the Group undertakes a detailed review.

AASB 16 'Leases'

AASB 16 provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessees and lessors. The accounting model for lessees will require lessees to recognise all leases on balance sheet, except for short-term leases and leases of low value assets. AASB 16 applies to annual periods beginning on or after 1 January 2019. The directors of the Corporation anticipate that the application of AASB 16 in the future may have a material impact on the amounts reported and disclosures made in the Corporation's consolidated financial statements. However, it is not practicable to provide a reasonable estimate of the effect of AASB 16 until the Corporation performs a detailed review.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

AASB 15 'Revenue from Contracts with Customers'

- AASB 15 establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. AASB 15 will supersede the current revenue recognition guidance including AASB 118 'Revenue,' AASB 111 'Construction Contracts' and the related Interpretations when it becomes effective.
- The core principle of AASB 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Specifically, the Standard introduces a 5-step approach to revenue recognition:
  - Step 1: Identify the contract(s) with a customer
  - Step 2: Identify the performance obligations in the contract
  - Step 3: Determine the transaction price
  - Step 4: Allocate the transaction price to the performance obligations in the contract
  - Step 5: Recognise revenue when (or as) the entity satisfies a performance obligation
- Under AASB 15, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e. when 'control' of the goods or services underlying the particular performance obligation is transferred to the customer.

The directors of the Corporation anticipate that the application of AASB 15 in the future is not likely to have a material impact on the amounts reported in the Group's consolidated financial statements. However, the Corporation is still in the process of completing a detailed assessment on the anticipated impacts and disclosure.

(c) Principles of consolidation

The consolidated financial report includes the Corporation, being the parent entity, and its controlled entities.

The financial report includes the information and results of each controlled entity from the date on which the Corporation obtained control and until such time as the Corporation ceased to control the entity. The financial reports of subsidiaries are prepared for the same reporting period as the Corporation.

In preparing the consolidated financial report, the effects of all transactions between entities in the group have been eliminated.

(d) Significant accounting judgments

In the process of applying the Corporation's accounting policies, the Corporation has made the following judgments, apart from those involving estimates, which have a significant effect on the amount recognised in the financial report.

- **Fair value of hydro generation assets**

  Note 1.2 (i) and note 9 describe the judgment process adopted in assessing fair value of hydro generation assets. Note 1.2(m) describes the judgment process adopted to estimate the recoverable amount of property, plant and equipment when an indication of revaluation exists or when a previous indicator of revaluation has reversed.

- **Financial liabilities and financial assets**

  Notes 1.2(j) and (r) describe the valuation methods applied to the Corporation's financial liabilities and financial assets which include judgements about market conditions and activity.

  Note 3 details assumptions on financial assets and liabilities.

(e) Significant accounting estimates and assumptions

The Retirement Benefits Fund liability detailed in note 19 has been assessed by the State Actuary and various actuarial assumptions have been applied to arrive at the carrying value reported.

(f) Receivables

Current trade receivables include amounts receivable on 30 day terms from Australian Energy Market Operator (AEMO) for electricity sales and amounts receivable on 30 to 90 day terms for consulting services. They also include amounts receivable on terms varying from 14 to 90 days for retail sales of electricity and gas. Receivables are recognised and carried at the invoiced amount less an allowance for impairment. Such an allowance is only recognised when there is objective evidence that the debt is impaired. Any bad debts are written off as an expense or against the provision for impairment.

All trade receivables are non-interest bearing except for Entura consulting receivables which, if past due, are charged interest in accordance with the contract.

Non-current receivables are recognised and carried at amortised cost. Amortisation of receivables is calculated using the effective interest method. Any allowance for impairment is deducted from the carrying value.

Prior to extending credit to new Entura consulting clients and Momentum retail customers, credit checks are undertaken by referencing external credit reports and contacting credit referees. Additional risks are reviewed in relation to new international clients.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(g) Inventories

Inventories are carried at the lower of cost and net realisable value.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs necessary to make the sale.

(h) Cash and cash equivalents

Cash and cash equivalents reported in the Balance Sheet and Cash Flow Statement comprises cash on hand and in banks and short-term deposits. Short-term deposits have an original maturity of three months or less, are readily convertible to known amounts of cash and are subject to an insignificant risk of change in value.

(i) Property, plant and equipment

The Corporation carries its hydro generation assets at fair value. The basis for the fair value calculation is described in note 9.

The Corporation's other property, plant and equipment assets are carried at cost less accumulated depreciation and revaluation.

The remaining useful life of property, plant and equipment and the residual value at the end of the useful life are reviewed annually.

Depreciation of property, plant and equipment, other than land, is based on remaining useful life using the straight-line method. Useful lives applicable to each class are as follows:

	2016	2015
Hydro generation	3 – 150 years	3 – 150 years
Other generation	3 – 50 years	3 – 50 years
Motor vehicles	4 – 33 years	4 – 33 years
Minor assets	1 – 10 years	1 – 10 years
Buildings	5 – 50 years	5 – 50 years

Property, plant and equipment are written off upon disposal or when no future economic benefits are expected from continued use. Any gain or loss is reported in the Income Statement.

(j) Financial assets

Financial assets in the scope of AASB 139 'Financial Instruments: Recognition and Measurement' are classified as loans and receivables, or at fair value through profit or loss. When financial assets are initially recognised they are measured at fair value. The Corporation determines the classification of its financial assets after initial recognition and, where appropriate, re-evaluates this designation at each financial year end. All routine purchases and sales of financial assets are recognised on the trade date being the date that the Corporation commits to purchase the assets.

- **Loans and receivables**

  Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are carried at amortised cost using the effective interest method. Gains and losses are recognised in the Income Statement when the loans and receivables are derecognised or impaired, as well as through the amortisation process.

- **At fair value through profit or loss**

  Financial assets are classified as being at fair value through profit or loss where the financial asset has been acquired principally for resale in the near future, is part of an identified portfolio of financial instruments that the Corporation manages together, has a recent actual pattern of trading and is a derivative that is not designated and effective as a hedging instrument.

(k) Goodwill

Goodwill represents the excess of the cost of the acquisition over the net fair value of the identifiable assets, liabilities and contingent liabilities of the subsidiary acquired. Goodwill is measured at cost less accumulated impairment losses. Note 1.2(m) contains more information on the treatment of Goodwill.

(l) Research and development

Research expenditure is expensed when incurred. Expenditure incurred during the development phase of an internal project is recognised as an asset only when all of the following criteria are met:

- technical feasibility demonstrates the asset to be available for use or sale currently or after completion of development;
- there is an intention, and the ability, to use or sell the asset upon completion;
- generation of probable future economic benefits can be demonstrated;
- adequate technical, financial and other resources are available to develop the asset to a state where it can be used or sold; and
- expenditure incurred in the development phase can be reliably measured and attributed to the asset.

Following initial recognition of development expenditure, the asset is valued in accordance with note 1.2(i).

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(m) Asset impairment

At each reporting date the Corporation assesses whether there is an indication that an asset may be impaired. If any such indication exists the Corporation makes an estimate of the asset's recoverable amount. For goodwill, an assessment of impairment is performed and the recoverable amount is estimated each year. An asset's recoverable amount is the higher of its fair value less costs to sell and its value in use. Value in use is determined for each individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. In such cases the asset is tested for revaluation as part of the cash generating unit (CGU) to which it belongs. Goodwill acquired in a business combination, for the purpose of revaluation testing, is allocated to the CGUs that are expected to benefit from the synergies of the combination.

When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset or CGU is considered impaired and is written down to its recoverable amount. Impairment losses are allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to reduce the carrying amount of the other assets in the CGU on a pro rata basis. The Corporation classifies its hydro generating assets, the Momentum Energy retail business and the gas-fired generation business as separate CGUs.

In assessing value in use, the estimated future cash flows are discounted to their present value using the pre-tax nominal weighted average cost of capital that reflects current market assessment of the time value of money and the expected life of the asset. In assessing fair value, estimates are made of the current market value of an asset less estimated cost of sale.

An assessment is also made at each reporting date as to whether there is any indication that the cause of previously recognised impairment losses may no longer exist or have decreased. A previously recognised impairment loss is only reversed if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case the carrying amount of the asset is increased to its recoverable amount and a gain is recognised in the Income Statement. The impairment reversal cannot result in a carrying amount exceeding the amount that would have been determined, net of depreciation or amortisation, had no revaluation loss been recognised for the asset in prior years. An impairment of goodwill is not reversed.

(n) Payables

All trade payables and accrued expenses are unsecured and non-interest bearing, are normally settled within supplier credit terms and are carried at the invoiced amount.

(o) Provisions

A provision is recognised when there is a legal or constructive obligation as a result of a past event, it is probable that a future sacrifice of economic benefits will be required to settle the obligation, and a reliable estimate can be made of the obligation.

Provisions relating to a liability that is expected to be settled more than 12 months after the balance date are discounted using a pre-tax rate that reflects the risks of the underlying liability.

An onerous contract is considered to exist when the Corporation is party to a contract under which the unavoidable cost of meeting contractual obligations exceeds the economic benefits to be received. Net obligations arising under onerous contracts are recognised as a provision.

A restructuring provision is recognised when the Group has developed a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement the plan or announcing its main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the entity.

(p) Employee benefits

- **Wages, salaries and annual leave**

  Liabilities for wages, salaries and annual leave are recognised as the present obligations resulting from employees' services provided to the reporting date. These liabilities include related on-costs. Liabilities expected to be settled within 12 months are based on wage and salary rates that the Corporation expects to pay at the time of settlement. For those expected to be settled later than 12 months the liability is calculated using expected future increases in wage and salary rates including related on-costs and the expected rate of utilisation based on historical patterns and is discounted using Corporate Bond rates at reporting date.

- **Long service leave**

  The provision for long service leave represents the present value of the expected future cash payments for entitlements earned through employees' services provided to reporting date.

  The provision is calculated using expected future increases in wage and salary rates including related on-costs and the expected rate of utilisation based on historical patterns and is discounted using Corporate Bond rates at reporting date. The provision is segregated into current and non-current portions based on vesting of entitlements in the next 12 months.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(p) Employee benefits (continued)

- **Defined benefit plan**

  The Retirement Benefits Fund (RBF) is a defined benefit plan funded by employee and employer contributions. Employee contributions to the fund are transferred to independent RBF administrators while employer obligations are raised as a provision. The defined benefit plan is closed to new members.

  An interest charge, calculated by the application of market-related interest rates, is added to this provision each year after advice from the State Actuary. This is reported in the Income Statement as part of finance costs.

- **Defined contribution plans**

  Contributions to defined contribution superannuation plans are made as directed by the employee and are expensed when the employee has rendered service entitling them to the contribution.

- **Employee termination benefits**

  Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

(q) Taxation

- **Income tax equivalent**

  Under the *Government Business Enterprises Act 1995* the Corporation is required to pay an income tax equivalent to the State of Tasmania as if it were a company under Commonwealth income tax laws. As a result the Corporation applies tax effect accounting principles prescribed in AASB 112 Income Taxes.

  Current tax assets and liabilities are measured at the amount expected to be paid or recovered. The tax rates and tax laws used to compute the amount are those that are enacted or substantively enacted by the balance sheet date.

  Subject to the condition noted below, deferred income tax assets and liabilities are recorded for all temporary differences at balance date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

  Deferred tax assets are recognised to the extent that it is probable that sufficient taxable income will be available against which deductible temporary differences can be utilised. However, deferred tax assets and liabilities are not recognised if the temporary differences giving rise to them arise from the initial recognition of assets and liabilities which affect neither taxable income nor accounting profit.

  Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries and interest in joint ventures except where the Corporation is able to control the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

  Income taxes relating to items recognised directly in equity are recognised as other comprehensive income or expense in the Statement of Comprehensive Income.

  Deferred tax assets and deferred tax liabilities are offset only if a legally enforceable right of set-off exists and they relate to the same taxable entity and the same taxation authority.

- **Tax consolidation**

  Income tax legislation allows groups, comprising a parent entity and its Australian wholly-owned entities, to elect to consolidate and be treated as a single entity for income tax purposes.

  The Corporation and its wholly-owned Australian resident subsidiaries have consolidated for tax purposes under this legislation and have elected to be taxed as a single entity. The head entity within the tax consolidation group is Hydro-Electric Corporation.

  Tax sharing agreements between the Corporation as head entity and its subsidiaries define the liability for tax of each member of the group and the process by which members can exit the group. As a result of these agreements amounts equivalent to the deferred tax assets and liabilities are disclosed by each subsidiary as intercompany loan balances as if the subsidiary were a stand-alone tax entity.

  Each of the entities in the tax consolidated group has agreed to make a tax equivalent payment to the head entity based on that entity's tax payable on a stand-alone basis. Such amounts are reflected as amounts receivable from or payable to other entities in the tax consolidated group.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(q) Taxation (continued)

- **Other taxes**

  Revenues, expenses, assets and liabilities are recognised net of the amount of goods and services tax (GST) except:

  - When the GST incurred on a purchase of goods or services is not recoverable from the taxation authority, in which case the GST is recognised as part of the cost of acquisition of the asset or as part of the expense item as applicable; and
  - Receivables and payables, which are stated with the amount of GST included.

  Cash flows are included in the Cash Flow Statement on a gross basis. The GST component of cash flows arising from investing and financing activities, which is recoverable from, or payable to, the taxation authority, is classified as operating cash flow.

  Commitments and contingencies are disclosed net of the amount of GST recoverable from, or payable to, the taxation authority.

(r) Financial liabilities

Financial liabilities include trade payables, interest-bearing liabilities and derivative financial instruments such as energy contracts, credit swaps, interest rate swaps, forward foreign exchange contracts and the Basslink contracts.

The Corporation enters into derivative financial instruments to manage financial exposure to electricity prices, exchange rates and interest rates.

Derivatives are initially recognised at fair value on the date the Corporation becomes party to a contract. At subsequent reporting dates the fair value is remeasured and any gain or loss (with the exception of cash flow hedges qualifying for hedge accounting) is recognised in the Income Statement.

The Corporation designates certain derivatives as effective hedges to allow hedge accounting rules to be applied. A hedge is effective if it demonstrates changes in fair value or cash flows that offset those attributable to the hedged risk over the designated hedging period. At inception of a hedge relationship the Corporation formally designates and documents the hedge relationship to which the Corporation wishes to apply hedge accounting and the alignment of the hedge to the Corporation's risk management objectives and strategies. The documentation includes identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how the Corporation will assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair values or cash flows attributable to the hedged risk. Such hedges are assessed on an ongoing basis to determine that they have been highly effective throughout the financial reporting periods for which they were designated.

Cash flow hedges are hedges of the Corporation's exposure to variability in cash flows attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction that could affect profit or loss. The effective portion of the gain or loss on the hedging instrument is recognised directly in equity, while the ineffective portion is recognised as a gain or loss from current year operations in the Income Statement.

Amounts taken to equity are transferred to the Income Statement when the hedged transaction affects profit or loss, such as when hedged income or expenses are recognised or when a forecast transaction occurs. When the hedged item is the cost of a non-financial asset or liability, the amounts taken to equity are transferred to the initial carrying amount of the non-financial asset or liability.

If the forecast transaction is no longer expected to occur, amounts previously recognised in equity are recognised as gains or losses from current year operations in the Income Statement. If the hedging instrument expires or is sold, terminated or exercised without replacement or rollover, or if its designation as a hedge is revoked, amounts previously recognised in equity remain in equity until the forecast transaction occurs.

(s) Leases

The determination of whether an arrangement is or contains a lease is based on the substance of the arrangement and requires an assessment of whether the fulfilment of the arrangement is dependent on the use of a specific asset and the arrangement conveys a right to use the asset.

- **Corporation as a lessee**

  When the Corporation assumes substantially all the risks and rewards of ownership under a lease it is classified as a finance lease. Upon initial recognition the leased asset is measured at the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to the class of asset to which it is assigned. Lease payments under a finance lease are apportioned between the finance expense and the reduction of the outstanding liability.

  Other leases are operating leases. Payments under operating leases are recognised as an expense in the Income Statement on a straight-line basis over the lease term. Lease incentives are recognised in the Income Statement as an integral part of the total lease expense.

- **Corporation as a lessor**

  Leases in which the Corporation retains substantially all the risks and benefits of ownership of the leased asset are classified as operating leases. Initial direct costs incurred in negotiating an operating lease are added to the carrying amount of the leased asset.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(t) Borrowing expenses

Borrowing costs associated with the raising of loans are expensed when incurred except those borrowing costs directly attributable to an asset. Borrowing costs attributable to an asset are included in the capital cost of the asset.

(u) Interest-bearing liabilities

Loans are recognised initially at the fair value of the consideration received. Subsequent to initial recognition, loans are measured at amortised cost using the effective interest method.

(v) Foreign currency

The consolidated statements of the Corporation are presented in the functional currency which is Australian dollars.

All foreign currency transactions are brought to account using the spot exchange rate in effect at the date of the transaction. Foreign currency amounts at balance date are translated to Australian dollars using the exchange rate in effect at that date.

Foreign currency transactions that are hedged are accounted for as detailed in note 1.2 (j) or 1.2 (r).

Exchange variances resulting from the translation of balances of foreign subsidiaries are recognised in the foreign currency translation reserve in equity.

All other exchange differences in the consolidated financial report are reported as gains or losses from current year operations in the Income Statement.

(w) Joint ventures

A joint venture is a contractual arrangement whereby two or more parties undertake an economic activity which is subject to joint control.

An investor controls an investee if they have power over the investee, are exposed to variable returns, and are able to use their power over the investee to affect the amount of the returns. The Corporation has assessed power over the joint ventures by reference to the shareholders agreement relating to each joint venture, the respective voting rights held and the percentage of vote required to effect a decision. In each case the requirement to have unanimous agreement to a decision prevents the Corporation having power over any of the joint ventures. The Corporation is subject to variable returns but is unable to influence the amount of those returns in the absence of having power over the joint venture.

Interests in incorporated joint venture entities are reported in the consolidated financial report using the equity method and in the parent entity financial report using the cost method. If the carrying amount of an investment in a joint venture is zero, the Corporation's share of a loss by the joint venture is reported as a loss against the current year operations in the Income Statement and accrued as a provision for later offset against any investments.

Unincorporated joint ventures which operate jointly controlled assets are accounted for by recognising the Corporation's share of the venture's assets, liabilities, revenues and expenses.

(x) Segment information

The Corporation has identified segments based on internal management reports. Refer to note 33.

(y) Contributed equity

Contributed equity from the State of Tasmania is recorded when received.

(z) Government grants

Government grants are recognised as revenue when there is reasonable assurance that the Corporation is able to meet the qualifying conditions.

Where a grant is received as compensation for certain expenditure, the grant is recognised as revenue in the Income Statement on a basis that matches the timing of the expenditure.

1.2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

(aa) Revenue recognition

Revenue is recognised when the amount can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to the Corporation, control over any goods and the associated risks and rewards of ownership have flowed to the buyer, and any costs associated with the transaction can be reliably measured.

- **Electricity and gas sales**

  Revenue from generated electricity and traded gas is earned from the Australian Energy Market Operator (AEMO) at market price and is recognised at the time the electricity or gas is provided. Revenue from sale of gas to other parties is recognised at contract prices at the time of delivery. Revenue from sale of retail electricity is earned at contract prices and is recognised at the time of delivery to the customer. Retail electricity sold is purchased from AEMO at market price. Exposure to fluctuations in market price is managed through the use of derivative contracts executed principally in the Tasmanian and Victorian regions. The realised gain or loss on settlement of these contracts against market price is included in electricity revenue or cost of electricity as applicable.

- **Environmental energy products**

  Revenue from environmental energy products is recognised at the time the Corporation has earned the right to register the products.

- **Consulting services**

  Consulting revenue is recognised on the basis of work completed and with regard to the contractual agreements that exist with the client.

- **Interest income**

  Interest revenue is recognised on an accrual basis using the effective interest method. This is based on the amortised cost of a financial asset and the allocation of the interest income over the relevant period using the effective interest rate. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the net carrying amount of the financial asset.

- **Dividends**

  Revenue is recognised when the Corporation's right to receive the payment is established.

- **Rental revenue**

  Rental income from land and buildings is recognised on a straight-line basis over the term of the lease.

(ab) Rounding

Amounts in the Financial Report have been rounded to the nearest thousand dollars, unless otherwise stated.

(ac) Comparative figures

Where necessary, the comparative figures for the previous year have been reclassified to facilitate comparison with the current year.

(ad) Correction of prior year error

An adjustment has been made to the year ended 30 June 2015 figures within the 30 June 2016 financial statements relating to the correction of two prior year errors. One correction has been made within the retained earnings and income received in advance balances within the parent and consolidated entity financial statements. The adjustment has the effect of increasing income received in advance by $16 million at 30 June 2015, increasing revenue by $8 million and reducing retained earnings by $24 million. The other correction has been made within the retained earnings and other current liabilities balances within the consolidated entity only. This adjustment has the effect of reducing other current liabilities by $7 million and increasing retained earnings by the corresponding amount.

2. REVENUE AND EXPENSES

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
(a) Revenue					
Revenue from the sale of goods		1,309,534	1,441,129	427,930	562,085
Revenue from the rendering of services		26,329	26,032	25,513	23,112
		1,335,863	1,467,161	453,443	585,197
(b) Finance expenses					
Loan interest		34,518	47,022	34,518	47,022
Government guarantee fee		7,855	9,237	7,855	9,237
RBF interest	19	14,474	14,148	14,474	14,148
Other finance costs		1,372	1,520	34,459	392
		58,219	71,927	91,306	70,799
(c) Fair value gains					
Treasury derivatives		196	3	196	–
Onerous contracts		10,390	16,047	–	–
		10,586	16,050	196	–
(d) Fair value losses					
Basslink financial asset and liabilities		94,366	40,810	94,366	40,810
Energy price derivatives		189,245	65,100	189,245	65,100
Treasury derivatives		–	320	–	320
Site rehabilitation provision		5,523	3,776	–	–
Onerous contracts		6,821	8,722	5,446	2,970
Other		196	249	196	249
Fair value losses		296,151	118,977	289,253	109,449
Fair value gains/(losses)		(285,565)	(102,927)	(289,057)	(109,449)
(e) Revaluation and impairment expense/(gain)		–	–	23,191	51,968
Impairment of loan carried at amortised cost		(58,697)	(232,066)	(96,561)	(249,410)
Revaluation (gain)/loss of generation assets		(58,697)	(232,066)	(73,370)	(197,442)

3. ASSUMPTIONS AND JUDGMENTS

Financial assets and liabilities

Changes in the fair value of financial assets and liabilities described below are presented as gains or losses through the Income Statement and are calculated based on the present value of projected cash flows. None of the adjustments reflect cash flow transactions during the year. In the case of those financial liabilities valued using published forward prices, while fair value represents an estimate of the cost of closing out the obligations at year end, the intention of the Corporation is to let the obligations run their course and deliver the associated financial benefits.

- **Energy price derivatives**

  The Corporation trades in energy price derivatives in all regions of the National Electricity Market (NEM) as a means of securing the value of future electricity revenue or the cost of future electricity to be delivered under retail contracts. In accordance with AASB 139 'Financial Instruments: Recognition and Measurement' financial derivatives are recorded at their fair value. Movement in fair value is recorded as a gain or loss in the Income Statement as detailed in note 2(c) and (d).

  Mainland electricity contracts are valued using published forward energy prices. The remeasurement of the fair value of energy price derivatives at 30 June 2016 has resulted in a loss being recorded in the Income Statement (note 2(d)). Details of the methodology adopted are provided in note 20(c).

- **Basslink financial asset and liabilities**

  The financial asset and liabilities associated with the Basslink agreements are recorded at fair value in accordance with AASB 139. The remeasurement of the net financial liability to fair value at 30 June 2016 has resulted in loss being recorded in the Income Statement (note 2(d)). Note 20(c) details the methodology used to calculate the fair value of the Basslink financial asset and liabilities.

Asset valuation

Assets are fair valued and assessed for impairment in accordance with the methodology described in note 1.2(m). Note 9 describes the inputs to the asset revaluation model. Goodwill generated by acquisition of a business is attributed to cash generating units (CGU) as described in note 1.2(m). Assessment of this goodwill for impairment is conducted in conjunction with the revaluation assessment of the relevant CGUs. Impairment assessment is undertaken on a value-in-use basis involving assessment of future cash flows associated with the strategic direction over the ensuing five years or useful life of the plant discounted at the Corporation's weighted average cost of capital.

Site rehabilitation provision

The Corporation has provided for the cost of removing the Bell Bay plant and removing the Tamar Valley Power Station at the end of its useful life. The provision includes the cost of remediating the site within prescribed limits. The provision also includes costs associated with remediating sites that were used for diesel generation during this financial year. The provision is reassessed each year to reflect the current estimated cost of the demolition and remediation. Any adjustment to the provision is reflected as a gain or loss in the Income Statement.

Onerous contracts

Present obligations arising under onerous contracts are recognised and measured as provisions. An onerous contract is considered to exist where the Corporation has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received from the contract.

Unbilled energy

In valuing unbilled energy the Corporation estimates the load of electricity sold to customers as at 30 June at the average sale price.

4. INCOME TAX EQUIVALENT

		CONSOLIDATED		PARENT	
		2016 $'000	2015 $'000	2016 $'000	2015 $'000
(a)	**Income tax (benefit)/expense reported in the Income Statement**				
	Current income tax liability	4,763	14,330	401	21,813
	Adjustments in respect of income tax of prior years	(415)	(7,534)	(209)	2,341
	Income tax expense in relation to foreign operations	511	609	–	–
	Deferred income tax expense arising from origination and reversal of temporary differences	(92,142)	47,411	(79,495)	43,673
	Income tax expense/(benefit) recognised in the Statement of Comprehensive Income	(87,283)	54,816	(79,303)	67,827
	A reconciliation between income tax expense and accounting profit before income tax multiplied by the Group's income tax rate is as follows:				
	Accounting profit before income tax	(292,303)	183,491	(321,670)	144,359
	Income tax expense/(benefit) calculated at 30%	(87,691)	55,047	(96,501)	43,308
	Adjustment in respect of income tax of previous years	(185)	(887)	(209)	4,614
	Income tax expense in relation to foreign operations	511	609	–	–
	Expenditure not deductible for income tax purposes	82	47	211	11,139
	Effect of transactions within the tax consolidated group that are not subject to taxation	–	–	17,196	8,766
	Research and development concession	–	–	–	–
	Income tax expense/(benefit) recognised in the Statement of Comprehensive Income	(87,283)	54,816	(79,303)	67,827
(b)	**Income tax benefit/(expense) recognised directly in equity**				
	Revaluation of effective hedges	562	(1,536)	562	(1,224)
	Actuarial assessment of RBF provision	20,051	(12,399)	20,051	(12,399)
	Revaluation of property, plant and equipment	(106,839)	–	(106,839)	–
	Other	(77)	–	–	–
	Income tax (expense)/benefit recognised in equity	(86,303)	(13,935)	(86,226)	(13,623)
(c)	**Current tax assets and liabilities**				
	Current tax asset	26,105	25,876	26,105	25,876
(d)	**Deferred tax balances**				
	Deferred tax assets comprise:				
	Deductible temporary differences	606,314	469,718	554,638	420,705
	Tax losses	3,533	3,892	3,533	3,892
		609,847	473,610	558,171	424,597
	Deferred tax liabilities comprise:				
	Assessable temporary differences	1,174,046	1,043,288	1,220,115	1,079,451
	Net deferred tax liabilities	564,199	569,678	661,944	654,854

4. INCOME TAX EQUIVALENT (CONTINUED)

The tax effect of assessable and deductible temporary differences arises from the following:

	2016 CONSOLIDATED					
	Opening balance $'000	Charged to income $'000	Charged to equity $'000	Adjustments $'000	Acquisitions $'000	Closing balance $'000
Deferred tax liabilities:						
Property, plant and equipment	886,434	16,044	106,839	–	–	1,009,317
Electricity derivatives	18,392	32,538	–	–	–	50,930
Financial assets	120,873	(20,498)	–	–	–	100,375
Other	17,589	(4,165)	–	–	–	13,424
	1,043,288	23,919	106,839	–	–	1,174,046
Deferred tax assets:						
Provision for employee entitlements	100,877	(1,091)	20,051	–	–	119,837
Basslink and other financial liabilities	309,035	113,751	562	–	–	423,348
Provisions	50,276	4,427	–	–	–	54,703
Tax losses	–	–	–	–	–	–
Other	9,530	(1,026)	(77)	–	–	8,426
	469,718	116,061	20,536	–	–	606,314
Net deferred tax liabilities before losses	573,572	(92,142)	86,303	–	–	567,732
Unused tax losses and credits	(3,892)	359	–	–	–	(3,533)
Net deferred tax liabilities	569,680	(91,783)	86,303	–	–	564,199

	2016 PARENT					
	Opening balance $'000	Charged to income $'000	Charged to equity $'000	Adjustments $'000	Acquisitions $'000	Closing balance $'000
Deferred tax liabilities:						
Property, plant and equipment	930,269	23,830	106,839	–	–	1,060,938
Electricity derivatives	18,392	32,538	–	–	–	50,930
Financial assets	120,873	(20,498)	–	–	–	100,375
Other	9,917	(2,045)	–	–	–	7,872
	1,079,451	33,825	106,839	–	–	1,220,115
Deferred tax assets:						
Provision for employee entitlements	99,991	(1,010)	20,051	–	–	119,032
Basslink and other financial liabilities	309,035	113,751	562	–	–	423,348
Provisions	2,723	1,649	–	–	–	4,372
Tax losses	–	–	–	–	–	–
Other	8,956	(1,070)	–	–	–	7,886
	420,705	113,320	20,613	–	–	554,638
Net deferred tax liabilities before losses	658,746	(79,495)	86,226	–	–	665,477
Unused tax losses and credits	(3,892)	359	–	–	–	(3,533)
Net deferred tax liabilities	654,854	(79,136)	86,226	–	–	661,944

4. INCOME TAX EQUIVALENT (CONTINUED)

	2015 CONSOLIDATED					
	Opening balance $'000	Charged to income $'000	Charged to equity $'000	Adjustments $'000	Acquisitions $'000	Closing balance $'000
Deferred tax liabilities:						
Property, plant and equipment	811,541	74,893	–	–	–	886,434
Electricity derivatives	(8,717)	27,109	–	–	–	18,392
Financial assets	137,035	(16,162)	–	–	–	120,873
Other	20,029	(2,440)	–	–	–	17,589
	959,888	83,400	–	–	–	1,043,288
Deferred tax assets:						
Provision for employee entitlements	114,503	(1,227)	(12,399)	–	–	100,877
Basslink and other financial liabilities	263,393	47,178	(1,536)	–	–	309,035
Provisions	53,179	(2,903)	–	–	–	50,276
Tax losses	3,892	–	–	–	–	3,892
Other	16,589	(7,059)	–	–	–	9,530
	451,556	35,989	(13,935)	–	–	473,610
Net deferred tax liabilities	508,332	47,411	13,935	–	–	569,680

	2015 PARENT					
	Opening balance $'000	Charged to income $'000	Charged to equity $'000	Adjustments $'000	Acquisitions $'000	Closing balance $'000
Deferred tax liabilities:						
Property, plant and equipment	853,909	76,360	–	–	–	930,269
Electricity derivatives	(8,717)	27,109	–	–	–	18,392
Financial assets	137,035	(16,162)	–	–	–	120,873
Other	11,137	(1,220)	–	–	–	9,917
	993,364	86,087	–	–	–	1,079,451
Deferred tax assets:						
Provision for employee entitlements	113,555	(1,165)	(12,399)	–	–	99,991
Basslink and other financial liabilities	263,393	46,866	(1,224)	–	–	309,035
Provisions	24	2,699	–	–	–	2,723
Tax losses	3,892	–	–	–	–	3,892
Other	14,942	(5,986)	–	–	–	8,956
	395,806	42,414	(13,623)	–	–	424,597
Net deferred tax liabilities	597,558	43,673	13,623	–	–	654,854

All deferred tax balances relate to continuing operations.

At 30 June 2016, there is no recognised or unrecognised deferred income tax liability (2015: nil) for taxes that would be payable on the unremitted earnings of certain of the Group's subsidiaries or joint ventures. The Group has no liability for additional taxation should such amounts be remitted.

5. NOTE TO THE CASH FLOW STATEMENT

		CONSOLIDATED		PARENT	
		2016 $'000	2015 $'000	2016 $'000	2015 $'000
(a)	Cash reconciliation				
	Cash	21,395	15,683	15,066	8,554
	Money market investments	61,303	11	61,300	–
		82,698	15,694	76,366	8,554
(b)	Reconciliation of net cash provided by operating activities to net profit for the year				
	Profit/(loss) after income tax equivalent expense	(205,020)	136,675	(242,367)	84,532
	Adjusted for non-cash items of income and expense:				
	Depreciation of property, plant and equipment	84,678	78,904	80,328	74,102
	Amortisation	15,988	14,014	14,545	13,626
	Revaluations and impairment	(58,697)	(232,066)	(73,370)	(197,442)
	Loss on derecognition of property, plant and equipment	1,901	532	1,517	473
	Equity accounted share of joint venture (profit)/loss	102	(1,773)	–	–
	Intercompany loans forgiven	–	–	34,166	–
	Fair value adjustments	285,565	110,927	289,057	109,449
	Income tax (benefit)/expense	(87,283)	54,816	(79,303)	67,827
	Cash from operating profit before changes in working capital	37,234	162,029	24,573	152,567
	(Increase)/decrease in receivables	(130,396)	(9,389)	(116,059)	(2,656)
	(Increase)/decrease in inventories	(574)	(208)	(574)	(208)
	Increase/(decrease) in other financial assets and liabilities	(46,245)	(19,124)	(25,471)	(4,636)
	Increase/(decrease) in payables	151,556	(11,720)	131,874	(24,325)
	Increase/(decrease) in provisions	10,954	(16,053)	2,237	272
	Income tax equivalent paid	(5,000)	(80,069)	(5,000)	(80,069)
	NET CASH PROVIDED BY OPERATING ACTIVITIES	17,529	25,466	11,580	40,945

6. RECEIVABLES

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Trade receivables	384,768	253,169	215,190	99,476
Provision for impairment	(3,896)	(2,693)	(55)	(400)
	380,872	250,476	215,135	99,076
Ageing of past due but not impaired trade receivables:				
60–90 days	403	841	97	284
Over 90 days	2,282	11,201	352	9,137
	2,685	12,042	449	9,421

The amount past due but not impaired included in trade receivables is predominantly attributable to consulting services clients and retail customers. A provision for impairment has been recorded following assessment of the credit quality of the clients or customers with overdue accounts. This provision represents those accounts considered to be wholly or partially non-recoverable. The Corporation expensed $4.4 million of bad debts during the year (2015: $3.1 million). The Corporation does not hold any security over the balances past due.

7. INVESTMENTS

		NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
(a)	**Current investments**					
	Money market investments		61,303	11	61,300	–
(b)	**Non-current investments**					
	Investment in joint ventures	30	63,804	68,556	–	–
	Investment in subsidiaries		–	–	203,827	203,827
			63,804	68,556	203,827	203,827

8. INVENTORIES

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Maintenance stores	3,113	2,539	3,113	2,539
	3,113	2,539	3,113	2,539

9. PROPERTY, PLANT AND EQUIPMENT

Asset valuation

The hydro generation class of assets is carried at fair value. The fair value calculation is based on an internally generated Tasmanian energy price curve derived from the published three-year Victorian energy price curve. These prices are determined by market assessment of the many variables that may influence future prices including pending regulation and legislation. The price curve has been validated by comparison to other published price trend predictions in the National Electricity Market (NEM). The valuation also includes projected revenue under the existing large-scale mandatory renewable energy target until 2030 based on observed market prices.

Gas-fired generation assets are carried at fair value based on an independent valuation.

Beyond the period when market prices are observable, the Corporation derives forecast prices from an internal model for use in the fair value calculation. The modelled prices assume an uplift in electricity prices from carbon abatement policies from 2021 onwards. There is no carbon included in either the market or modelled prices prior to 2021.

The other principal inputs to the fair value of generation assets are forecast generation and total energy demand. The Corporation meets forecast contractual obligations from generation or by purchasing energy from the market. Opportunities for export of generation over Basslink will also be taken into account. The volume of energy generated from hydro assets is principally determined by actual and forecast water storage positions. These are in turn affected by the expected annual inflows to water storages from rainfall over catchments. The financial forecasts used to value the hydro generation assets are based on an assumed equivalent generation volume of 9000 GWh per annum. As disclosed in note 20, the financial assets and liabilities representing the Basslink and energy price derivatives are also carried at fair value.

Revenue and expenses in the fair value calculation are inflated at the forecast CPI and are discounted using the Corporation's pre-tax nominal weighted average cost of capital of 11% (2015: 11%). This has been validated against Australian financial and equity market data.

Movements in fair value of hydro generation assets will offset movement in the fair value of financial liabilities for the same forecast price change. Fair value of hydro generation assets is estimated to increase by $674 million (2015 $653 million) for a 10% increase in forecast prices and decrease by a similar amount for a 10% reduction in forecast prices. In both scenarios prices have been uniformly changed across all years of the fair value calculation.

AASB 116 'Property, Plant and Equipment' requires that, when an asset class is carried at fair value, disclosure must be made of the carrying amount that would be recognised had it been carried under the cost method. If the hydro generation assets had remained under the cost method their carrying amount would be $3.88 billion (2015: $3.885 billion).

Revaluation of assets

Note 1.2(i) and (m) details the Corporation's valuation policy with respect to assets.

An assessment in 2016 has indicated an upward revaluation of the generation class of assets. This is attributable to an increase in market and forecast energy prices.

Details of the Group's generation assets fair value hierarchy as at 30 June 2016 are as follows:

	Level 1	Level 2	Level 3	Fair value as at 30/06/16
	$'000	$'000	$'000	$'000
Generating plant	–	–	4,299,948	4,299,948

There were no transfers between Level 1 and Level 2 during the year.

9. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	2016 CONSOLIDATED						
	Generation at fair value $'000	Other generation at cost $'000	Motor vehicles at cost $'000	Land & buildings at cost $'000	Minor assets at cost $'000	Capital work in progress at cost $'000	Total $'000
Gross carrying amount							
Balance at the beginning of the year	4,173,469	20,229	14,465	63,705	86,989	159,726	4,518,583
Additions	–	–	–	–	500	108,578	109,078
Disposals	(253)	(264)	(2,768)	(340)	(5,928)	(1,706)	(11,259)
Transfers	70,939	1,257	2,703	2,934	7,774	(92,463)	(6,856)
Revaluations	164,053	–	–	–	–	–	164,053
Balance at the end of the year	4,408,208	21,222	14,400	66,299	89,335	174,135	4,773,599
Accumulated depreciation							
Balance at the beginning of the year	(286,463)	(12,949)	(6,071)	(21,073)	(72,340)	–	(398,896)
Disposals	290	68	1,986	240	5,887	–	8,471
Transfers	(3)	–	–	(1)	(155)	–	(159)
Revaluations	250,738	–	–	–	–	–	250,738
Depreciation expense	(72,822)	(542)	(2,115)	(2,718)	(6,477)	–	(84,674)
Balance at the end of the year	(108,260)	(13,423)	(6,200)	(23,552)	(73,085)	–	(224,520)
Net book value at the end of the year	4,299,948	7,799	8,200	42,747	16,250	174,135	4,549,079

	2016 PARENT						
	Generation at fair value $'000	Other generation at cost $'000	Motor vehicles at cost $'000	Land & buildings at cost $'000	Minor assets at cost $'000	Capital work in progress at cost $'000	Total $'000
Gross carrying amount							
Balance at the beginning of the year	4,042,189	20,139	14,200	46,589	83,692	155,856	4,362,665
Additions	–	–	–	–	500	105,705	106,205
Disposals	(251)	(264)	(2,752)	(340)	(5,896)	(1,107)	(10,610)
Transfers	70,939	1,257	2,703	1,757	6,562	(89,073)	(5,855)
Net revaluation adjustment	164,053	–	–	–	–	–	164,053
Balance at the end of the year	4,276,930	21,132	14,151	48,006	84,858	171,381	4,616,458
Accumulated depreciation							
Balance at the beginning of the year	(232,240)	(12,921)	(5,944)	(17,620)	(70,758)	–	(339,483)
Disposals	290	68	1,986	240	5,867	–	8,451
Transfers	(3)	–	–	–	3	–	–
Revaluation and impairment	288,602	–	–	–	–	–	288,602
Depreciation expense	(69,651)	(526)	(2,104)	(2,121)	(5,926)	–	(80,328)
Balance at the end of the year	(13,002)	(13,379)	(6,062)	(19,501)	(70,814)	–	(122,758)
Net book value at the end of the year	4,263,928	7,753	8,089	28,505	14,044	171,381	4,493,700

9. PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

	2015 CONSOLIDATED						
	Generation at fair value $'000	Other generation at cost $'000	Motor vehicles at cost $'000	Land & buildings at cost $'000	Minor assets at cost $'000	Capital work in progress at cost $'000	Total $'000
Gross carrying amount							
Balance at the beginning of the year	4,127,740	19,812	13,863	61,117	84,888	143,548	4,450,968
Additions	–	–	27	1	25	100,645	100,698
Disposals	(801)	(273)	(2,625)	(39)	(1,074)	(866)	(5,678)
Transfers	46,530	690	3,200	2,626	3,150	(83,601)	(27,405)
Balance at the end of the year	4,173,469	20,229	14,465	63,705	86,989	159,726	4,518,583
Accumulated depreciation							
Balance at the beginning of the year	(452,220)	(12,662)	(5,985)	(18,605)	(66,910)	–	(556,382)
Disposals	1,043	197	2,032	9	1,043	–	4,324
Transfers	6	–	–	(7)	1	–	–
Revaluation and impairment	232,066	–	–	–	–	–	232,066
Depreciation expense	(67,358)	(484)	(2,118)	(2,470)	(6,474)	–	(78,904)
Balance at the end of the year	(286,463)	(12,949)	(6,071)	(21,073)	(72,340)	–	(398,896)
Net book value at the end of the year	3,887,006	7,280	8,394	42,632	14,649	159,726	4,119,687

	2015 PARENT						
	Generation at fair value $'000	Other generation at cost $'000	Motor vehicles at cost $'000	Land & buildings at cost $'000	Minor assets at cost $'000	Capital work in progress at cost $'000	Total $'000
Gross carrying amount							
Balance at the beginning of the year	3,997,397	19,722	13,612	44,592	81,996	138,796	4,296,115
Additions	–	–	–	–	–	96,072	96,072
Disposals	(801)	(273)	(2,612)	(28)	(833)	(807)	(5,354)
Transfers	45,593	690	3,200	2,025	2,529	(78,205)	(24,168)
Balance at the end of the year	4,042,189	20,139	14,200	46,589	83,692	155,856	4,362,665
Accumulated depreciation							
Balance at the beginning of the year	(419,226)	(12,651)	(5,866)	(15,572)	(65,565)	–	(518,880)
Disposals	1,043	197	2,020	2	827	–	4,089
Transfers	6	–	–	(7)	1	–	–
Revaluation and impairment	249,410	–	–	–	–	–	249,410
Depreciation expense	(63,473)	(467)	(2,098)	(2,043)	(6,021)	–	(74,102)
Balance at the end of the year	(232,240)	(12,921)	(5,944)	(17,620)	(70,758)	–	(339,483)
Net book value at the end of the year	3,809,949	7,218	8,256	28,969	12,934	155,856	4,023,182

10 . INTANGIBLE ASSETS

	CONSOLIDATED		PARENT	
	2016 Software at cost $'000	2015 Software at cost $'000	2016 Software at cost $'000	2015 Software at cost $'000
Gross carrying amount				
Balance at the beginning of the year	124,213	111,755	120,182	110,961
Disposals	(159)	(14,947)	(159)	(14,947)
Transfers from capital work in progress	6,989	27,405	5,855	24,168
Balance at the end of the year	131,043	124,213	125,878	120,182
Accumulated amortisation				
Balance at the beginning of the year	(35,813)	(36,546)	(35,009)	(36,130)
Disposals	144	14,747	144	14,747
Transfers	159	—	—	—
Amortisation expense	(15,987)	(14,014)	(14,545)	(13,626)
Balance at the end of the year	(51,497)	(35,813)	(49,410)	(35,009)
Net book value at the end of the year	79,546	88,400	76,468	85,173

11. OTHER FINANCIAL ASSETS

		NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
(a)	**Current other financial assets**					
	Energy price derivatives	17	121,282	33,474	121,282	33,474
	Basslink financial asset (i)	17	48,758	58,869	48,758	58,869
	Environmental energy products		67,232	41,786	67,174	41,748
			237,272	134,129	237,214	134,091
(b)	**Non-current other financial assets**					
	Basslink financial asset (i)	17	285,827	344,041	285,827	344,041
	Basslink security deposit (ii)		50,000	50,000	50,000	50,000
	Energy price derivatives	17	48,485	31,475	48,485	31,475
			384,312	425,516	384,312	425,516

(i) The Basslink financial asset represents the fair value of the contractual rights to receive revenue under the Basslink Services Agreement (note 20).

(ii) Basslink security deposit represents the contribution made to the asset owner upon commissioning. This will be recovered via lower facility fee payments over the final 3 years of the agreement.

12. OTHER ASSETS

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
(a) Current other assets				
Prepayments	5,568	9,216	4,325	8,603
Other	6,414	7,863	196	–
	11,982	17,079	4,521	8,603
(b) Non-current other assets				
Prepayments	48,925	30,803	–	–
Other	2,382	2,382	–	–
	51,307	33,185	–	–

13. GOODWILL

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Balance at the beginning of the year	16,396	16,396	–	–
Impairment losses	–	–	–	–
Closing balance of goodwill	16,396	16,396	–	–

14. PAYABLES

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Trade creditors	228,926	85,010	193,469	70,645
Accrued expenses	79,636	72,137	27,018	18,109
Accrued interest payable	7,277	7,136	7,277	7,136
	315,839	164,283	227,764	95,890

15. INTEREST-BEARING LIABILITIES

		CONSOLIDATED		PARENT	
		2016 $'000	2015 $'000	2016 $'000	2015 $'000
(a)	**Interest-bearing liabilities**				
	Current				
	Loans from Tascorp (i)	60,000	64,700	60,000	64,700
	Finance Lease Liability (ii)	720	703	720	703
		60,720	65,403	60,720	65,403
	Non-current				
	Loans from Tascorp (i)	845,000	785,000	845,000	785,000
	Finance Lease Liability (ii)	4,380	4,612	4,380	4,612
		849,380	789,612	849,380	789,612

(i) The loans from Tascorp are unsecured

(ii) The finance leases are secured by the leased assets

		CONSOLIDATED		PARENT	
		2016 $'000	2015 $'000	2016 $'000	2015 $'000
(b)	**Loan facilities**				
	Master loan facility				
	Facility limit	1,045,000	1,055,000	1,045,000	1,055,000
	Facility used/committed	905,000	849,700	905,000	849,700
	Facility balance	140,000	205,300	140,000	205,300
	Standby revolving credit facility				
	Facility limit	40,000	30,000	40,000	30,000
	Facility used/committed	–	–	–	–
	Facility balance	40,000	30,000	40,000	30,000
	Bank overdraft				
	Facility limit	1,000	1,000	1,000	1,000
	Facility used/committed	–	–	–	–
	Facility balance	1,000	1,000	1,000	1,000
	Corporate purchasing card				
	Facility limit	7,500	7,500	7,500	7,500
	Facility used/committed	4,264	4,368	4,264	3,726
	Facility balance	3,236	3,132	3,236	3,774

Hydro Tasmania manages its debt portfolio under a Board-approved Treasury Policy, in line with the requirement of the *GBE Act* and related 'Treasurer's Instructions'. The policy requires a weighted average term to maturity of 4 years. The policy also places limits around maturity profile of the debt. The maturity profile of the Corporation's debt as at 30 June 2016 is included in note 20. The current interest-bearing liabilities as at 30 June 2016 of $60.72 million will be settled with budgeted cash inflows. In addition, Hydro Tasmania had unused loan facilities of $180.0 million as at 30 June 2016.

15. INTEREST-BEARING LIABILITIES (CONTINUED)

	PARENT & CONSOLIDATED			
	2016 $'000 Less than one year	2016 $'000 Between one and five years	2016 $'000 Later than five years	2016 $'000 Total
(c) Finance lease liabilities				
Future minimum lease payments	720	2,990	3,301	7,011
Interest	–	(380)	(1,531)	(1,911)
Present value of future minimum lease payments	720	2,610	1,770	5,100

	PARENT & CONSOLIDATED			
	2015 $'000 Less than one year	2015 $'000 Between one and five years	2015 $'000 Later than five years	2015 $'000 Total
Future minimum lease payments	703	2,990	3,301	6,994
Interest	–-	(510)	(1,169)	(1,679)
Present value of future minimum lease payments	703	2,480	2,132	5,315

(d) Fair value disclosures

Details of the fair value of the Corporation's interest-bearing liabilities are set out in note 20.

16. PROVISIONS

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
(a) Current provisions					
Employee entitlements		19,712	20,268	17,441	17,706
Retirement Benefits Fund provision	19	18,841	18,849	18,841	18,849
Other provisions		56,310	60,886	4,215	1,488
		94,863	100,003	40,497	38,043
(b) Non-current provisions					
Employee entitlements		5,313	5,128	4,917	4,660
Retirement Benefits Fund provision	19	355,888	292,388	355,888	292,388
Other provisions		123,435	104,188	9,702	6,838
		484,636	401,704	370,507	303,886

Employee entitlements include redundancy costs.

16. PROVISIONS CONTINUED

	CONSOLIDATED			
	Onerous contracts(i) $'000	Regulatory schemes $'000	Site rehabilitation(ii) $'000	Total $'000
Other provisions				
Balance at 1 July 2015	97,442	14,778	52,854	165,074
Additional provision recognised	1,000	65,151	–	66,151
Reductions arising from payments	(855)	–	(467)	(1,322)
Reductions from settlement	–	(52,111)	–	(52,111)
Unwinding of discount	(3,570)	–	5,523	1,953
Balance at 30 June 2016	94,017	27,818	57,910	179,745

	PARENT			
	Onerous contracts(i) $'000	Regulatory schemes $'000	Site rehabilitation(ii) $'000	Total $'000
Other provisions				
Balance at 1 July 2015	8,326	–	–	8,326
Additional provision recognised	1,000	–	–	1,000
Reductions arising from payments	(855)	–	–	(855)
Unwinding of discount	5,446	–	–	5,446
Balance at 30 June 2016	13,917	–	–	13,917

(i) Onerous contracts include gas contracts, lease liabilities and the Corporation's obligation to remediate the Studland Bay Wind Farm foundations. The provision also includes costs associated with remediating sites that were used for diesel generation during this financial year.

(ii) Site rehabilitation provision represents estimated future cost of demolishing the Bell Bay plant and the Tamar Valley plant at the end of its useful life and of rehabilitating the site.

17. OTHER FINANCIAL LIABILITIES

		CONSOLIDATED		PARENT	
		2016 $'000	2015 $'000	2016 $'000	2015 $'000
(a)	**Current other financial liabilities**				
	Basslink Services Agreement	75,942	67,926	75,942	67,926
	Basslink Facility Fee Swap	26,632	16,927	26,632	16,927
	Interest rate swaps	9,608	7,735	9,608	7,735
	Energy price derivatives	282,130	49,622	282,130	49,622
		394,312	142,210	394,312	142,210
(b)	**Non-current other financial liabilities**				
	Basslink Services Agreement	400,641	453,449	400,641	453,449
	Basslink Facility Fee Swap	382,950	325,532	382,950	325,532
	Energy price derivatives	232,022	112,235	232,022	112,235
		1,015,613	891,216	1,015,613	891,216

17. OTHER FINANCIAL LIABILITIES (CONTINUED)

	NOTE	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
Energy price derivatives movement reconciliation:					
Liability at the beginning of the year		96,908	33,355	96,908	33,355
Amount included in electricity revenue due to settlement during the year		(557,559)	102,692	(447,652)	59,009
Net cash (payments)/receipts on futures margin account		(58,832)	13,846	(58,832)	13,846
Fair value (gain)/loss on contracts outstanding as at 30 June		863,868	(52,985)	753,961	(9,302)
Liability at the end of the year		344,385	96,908	344,385	96,908
Represented by:					
Current energy price derivative liability	17(a)	282,130	49,622	282,130	49,622
Non-current energy price derivative liability	17(b)	232,022	112,235	232,022	112,235
		514,152	161,857	514,152	161,857
Current energy price derivative asset	11(a)	121,282	33,474	121,282	33,474
Non-current energy price derivative asset	11(b)	48,485	31,475	48,485	31,475
		169,767	64,949	169,767	64,949
Net energy price derivatives liability		344,385	96,908	344,385	96,908
Net Basslink financial liability movement reconciliation:					
Balance at the beginning of the year		460,924	421,193	460,924	421,193
Current year net (revenue) and operating expenses realised during the year and included in the operating valuation		(25,984)	(11,634)	(25,984)	(11,634)
Increase/(decrease) in present value of projected rights and obligations of later years as at the beginning of the year		(38,261)	(22,717)	(38,261)	(22,717)
(Gain)/loss arising on re-estimation of fair value of contract rights and obligations over the remaining contract term as at 30 June		154,901	74,082	154,901	74,082
Balance at the end of the year		551,580	460,924	551,580	460,924
Represented by:					
Current Basslink financial liabilitity	17(a)	102,574	84,853	102,574	84,853
Non-current Basslink financial liability	17(b)	783,591	778,981	783,591	778,981
		886,165	863,834	886,165	863,834
Current Basslink financial asset	11(a)	48,758	58,869	48,758	58,869
Non-current Basslink financial asset	11(b)	285,827	344,041	285,827	344,041
		334,585	402,910	334,585	402,910
Net Basslink financial liability		551,580	460,924	551,580	460,924

18. OTHER LIABILITIES

	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000	PARENT 2016 $'000	PARENT 2015 $'000
(a) Current other liabilities				
Income received in advance	8,629	16,232	8,540	16,107
Loans from subsidiaries (i)	–	–	162,611	94,166
Other	2,588	2,837	1,233	1,233
	11,217	19,069	172,384	111,506

(i) Loans from associates and subsidiaries are interest-free and on-call and presented on a net basis.

19. RETIREMENT BENEFITS FUND PROVISION

Plan information

The Retirement Benefits Fund (RBF) is a defined benefit fund which pays lump sum benefits on resignation and lump sum or pension benefits on retirement, death or invalidity. The defined benefit section of RBF is closed to new members. All new members receive accumulation only benefits.

The scheme operates under the *Retirement Benefits Act 1993* and the *Retirement Benefits Regulations 2005*.

Although the scheme is not formally subject to the Superannuation Industry (Supervision) (SIS) legislation, the Tasmanian Government has undertaken (in a Heads of Government Agreement) to operate the scheme in accordance with the spirit of the SIS legislation.

As an exempt public sector superannuation scheme (as defined in the SIS legislation), the scheme is not subject to any minimum funding requirements.

RBF is a complying superannuation fund within the provisions of the *Income Tax Assessment Act 1997* such that the fund's taxable income is taxed at a concessional rate of 15%. However RBF is also a public sector superannuation scheme which means that employer contributions may not be subject to the 15% tax (if the RBF Board elects) up to the amount of 'untaxed' benefits paid to members in the year.

The RBF Board (the Board) is responsible for the governance of the scheme. As trustee, the Board has a legal obligation to act solely in the best interests of scheme beneficiaries. The Board has the following roles:

- administration of the scheme and payment to the beneficiaries when required in accordance with the scheme rules
- management and investment of the scheme assets
- compliance with the Heads of Government Agreement referred to above.

There are a number of risks to which the scheme exposes the Corporation. The more significant risks relating to the defined benefits are:

Investment risk—The risk that investment returns will be lower than assumed and employers will need to increase contributions to offset this shortfall.

Salary growth risk—The risk that wages or salaries (on which future benefit amounts will be based) will rise more rapidly than assumed, increasing defined benefit amounts and the associated employer contributions.

Inflation risk—The risk that inflation is higher than anticipated, increasing pension payments and the associated employer contributions.

Benefits options risk—The risk that a greater proportion of members who joined prior to 1 July 1994 will elect the pension option, which is generally more costly than the alternative lump sum option.

Pensioner mortality risk—The risk that pensioner mortality will be lighter than expected, resulting in pensions being paid for a longer period.

Legislative risk—The risk that legislative changes could be made which increase the cost of providing the defined benefits.

There were no planned amendments, curtailments or settlements during the year.

Information in this note applies equally to the parent and consolidated entities.

Reconciliation of the net liability recognised in the Balance Sheet:

	NOTE	2016 $'000	2015 $'000
Defined benefit obligation		441,233	382,777
Fair value of plan assets		(66,504)	(71,540)
Net superannuation liability		374,729	311,237
Comprising:			
Current net liability	16	18,841	18,849
Non-current net liability	16	355,888	292,388
Net superannuation liability		374,729	311,237

19. RETIREMENT BENEFITS FUND PROVISION (CONTINUED)

Reconciliation of the present value of the defined benefit obligation:

	2016 $'000	2015 $'000
Present value of defined benefit obligations at the beginning of the year	382,777	422,689
Current service cost	3,951	4,961
Interest cost	17,773	16,828
Contributions by plan participants	1,205	1,363
Actuarial losses/(gains) arising from changes in financial assumptions	61,804	(33,640)
Actuarial (gains)/losses arising from liability experience	3,291	(984)
Benefits paid	(28,900)	(27,865)
Taxes, premiums and expenses paid	(668)	(575)
Present value of defined benefit obligations at end of the year	441,233	382,777

Reconciliation of the fair value of scheme assets:

	2016 $'000	2015 $'000
Fair value of plan assets at beginning of the year	71,540	67,981
Interest income	3,298	2,680
Actual return on plan assets less interest income	(1,743)	6,940
Employer contributions	21,772	21,016
Contributions by plan participants	1,205	1,363
Benefits paid	(28,900)	(27,865)
Taxes, premiums and expenses paid	(668)	(575)
Fair value of plan assets at end of the year	66,504	71,540

Fair value of scheme assets:

	2016			
Asset category	Total $'000	Quoted prices in active markets – Level 1 $'000	Significant observable inputs – Level 2 $'000	Unobservable inputs Level 3 $'000
Cash and cash equivalents	11,543	11,543	–	–
Equity instruments	45,382	20,656	19,931	4,795
Debt instruments	8,916	2,420	3,660	2,836
Derivatives	123	–	123	–
Real estate	540	–	540	–
Total	66,504	34,619	24,254	7,631

	2015			
Asset category	Total $'000	Quoted prices in active markets – Level 1 $'000	Significant observable inputs – Level 2 $'000	Unobservable inputs Level 3 $'000
Cash and cash equivalents	12,417	12,417	–	–
Equity instruments	48,819	22,221	21,439	5,159
Debt instruments	9,590	2,603	3,937	3,050
Derivatives	132	–	132	–
Real estate	582	–	582	–
Total	71,540	37,241	26,090	8,209

The fair value of the scheme assets includes no amounts relating to any of the Corporation's own financial instruments or to any property occupied, or other assets used by the Corporation.

19. RETIREMENT BENEFITS FUND PROVISION (CONTINUED)

Assets are not held separately for each employer but are held for the Fund as a whole. The fair value of Scheme assets for each reporting entity was estimated by allocating the total Fund assets in proportion to the value of each reporting entity's funded liabilities, calculated using the assumptions outlined in this report, with the exception of the discount rate. For the purposes of allocating assets to each reporting entity, a Government Bond yield of 2.7% has been used, in order to be consistent with the allocation of assets reported to the Department of Treasury and Finance.

The actuarial assumptions used in the calculations have been agreed with the Tasmanian Department of Treasury and Finance and have been specified in the preceding tables of this note.

Significant actuarial assumptions as at balance date:

	2016 %	2015 %
Assumptions to determine defined benefit cost and defined benefit obligation at the start of the year		
Discount rate (active members)	4.80	4.10
Discount rate (pensioners)	4.80	4.10
Expected rate of increase in compulsory preserved amounts	4.50	4.50
Expected salary increase rate	3.00	3.00
Expected pension increase rate	2.50	2.50

	2016 %	2015 %
Assumptions used to determine defined benefit obligation at the end of the year		
Discount rate (active members)	3.55	4.80
Discount rate (pensioners)	3.55	4.80
Expected salary increase rate	3.00	3.00
Expected rate of increase in compulsory preserved amounts	4.50	4.50
Expected pension increase rate	2.50	2.50

	2016 $'000	2015 $'000
Gain/(loss) recognised in Other Comprehensive Income		
Actuarial (gains)/losses	(66,838)	41,331

Sensitivity analysis:

The defined benefit obligation as at 30 June 2016 under several scenarios is presented below.
Scenario A and B relate to discount rate sensitivity. Scenario C and D relate to expected pension increase rate sensitivity.
Scenario A: 1% pa lower discount rate assumption
Scenario B: 1% pa higher discount rate assumption
Scenario C: 1% pa lower expected pension increase rate assumption
Scenario D: 1% pa higher expected pension increase rate assumption

	Base Case	Scenario A –1.0% pa discount rate	Scenario B +1.0% pa discount rate	Scenario C –1.0% pa increase rate	Scenario D +1.0% pa increase rate
Discount rate (%)	3.55% pa	2.55% pa	4.55% pa	3.55% pa	3.55% pa
Pension increase rate (%)	2.50% pa	2.50% pa	2.50% pa	1.50% pa	3.50% pa
Defined benefit obligation ($'000s)	441,233	504,640	390,515	404,181	484,517

The defined benefit obligation has been recalculated by changing the assumptions as outlined above, whilst retaining all other assumptions.

There were no asset and liability matching strategies adopted by the fund.

The Corporation contributes a percentage of each lump sum or pension benefit payment. This percentage may be amended by the Minister on the advice of the Actuary.

The weighted average duration of the defined benefit obligation for the Corporation is 13.3 years.

	2017 $'000
Expected employer contributions	18,841

20. FINANCIAL INSTRUMENTS DISCLOSURES

The Corporation's primary purpose for holding financial instruments is to fund its operations and manage its financial risks.

The Corporation's principal financial instruments are derivatives and loans. The Corporation has other financial assets and liabilities such as a bank overdraft, cash and short-term investments, and trade receivables and payables which arise directly from its operations.

The main risks arising from the Corporation's operations which are managed through financial instruments are electricity price risk, interest rate risk, liquidity risk, foreign currency risk and credit risk.

(a) Financial instrument categories

The categories and fair value of financial instruments the Corporation holds are detailed in the following table:

	CONSOLIDATED				PARENT			
	Carrying amount 2016 $'000	Net fair value 2016 $'000	Carrying amount 2015 $'000	Net fair value 2015 $'000	Carrying amount 2016 $'000	Net fair value 2016 $'000	Carrying amount 2015 $'000	Net fair value 2015 $'000
Financial assets								
Cash	21,395	21,395	15,683	15,683	15,066	15,066	8,554	8,554
Loans and receivables								
Receivables	380,872	380,872	250,476	250,476	215,135	215,135	99,076	99,076
Held to maturity								
Investments	61,303	61,303	11	11	61,300	61,300	–	–
Fair value through profit or loss								
Forward foreign exchange contracts	9	9	168	168	9	9	168	168
Credit swaps	260,646	260,646	187,535	187,535	260,646	260,646	187,535	187,535
Basslink financial asset	334,585	334,585	402,910	402,910	334,585	334,585	402,910	402,910
Energy price derivatives	169,767	169,767	64,949	64,949	169,767	169,767	64,949	64,949
Other assets	5,624	5,624	9,547	9,547	4,325	4,325	8,603	8,603
	1,234,201	1,234,201	931,279	931,279	1,060,833	1,060,833	771,795	771,795
Financial liabilities								
Loans and receivables								
Accounts payable	308,562	308,562	157,147	157,147	220,486	220,486	88,754	88,754
Tascorp loans	912,277	880,117	856,836	832,305	912,277	880,117	856,836	877,067
Designated hedge accounting derivatives								
Interest rate swaps	9,608	9,608	7,735	7,735	9,608	9,608	7,735	7,735
Fair value through profit or loss								
Forward foreign exchange contracts	1,039	1,039	1,402	1,402	1,039	1,039	1,402	1,402
Credit swaps	260,646	260,646	187,535	187,535	260,646	260,646	187,535	187,535
Basslink Services Agreement	476,583	476,583	521,374	521,375	476,583	476,583	521,374	521,375
Basslink Facility Fee Swap	409,582	409,582	342,459	342,459	409,582	409,582	342,459	342,459
Energy price derivatives	514,151	514,151	161,257	161,257	514,151	514,151	161,257	161,257
Other liabilities	2,505	2,505	726	726	2,417	2,417	600	600
	2,894,953	2,862,793	2,236,471	2,211,941	2,806,789	2,774,629	2,167,952	2,188,184

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

(b) Financial risk management objectives and policies

The Corporation enters into derivative contracts being principally energy price contracts, interest rate swaps and forward currency exchange contracts. The risk management objective is to manage exposure to market electricity prices, interest rates and foreign currency rates arising from operations and funding. The Corporation enters into these derivatives in accordance with the policies approved by the Board. All hedges are cash flow hedges (refer note 1.2(r)).

The Basslink contracts including the Basslink Services Agreement (BSA), Floating Facility Fee Instrument (FFFI) and Basslink Facility Fee Swap (BFFS) have been designated as derivatives.

Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis for measurement and the basis on which income and expenses are recognised, in respect to each class of financial asset and financial liability are disclosed in notes 1.2(j) and (r).

The Corporation's objectives, policies and processes for managing its risk exposures are consistent with previous years.

(i) Capital risk management

The Corporation's policy is to maintain an appropriate capital structure to ensure it will continue as a going concern while maximising the return to stakeholders through an appropriate balance of debt and equity.

The capital structure of the Corporation includes loans disclosed in note 15, contributed equity and cash and cash equivalents disclosed in note 5.

The Corporation is subject to financial covenants on its borrowings and the Basslink Facility Fee Swap. The latter requires a minimum level of equity, sets a maximum level of debt, and requires a minimum of 50 per cent of debt to be held with the Tasmanian Government's central borrowing authority, Tascorp. The loan agreement with Tascorp sets a maximum financial leverage ratio and a minimum interest coverage ratio.

The Corporation reviews its capital risk and performance against these covenants on a monthly basis.

The Corporation has been compliant with all financial covenants.

(ii) Market risk management

The Corporation's activities primarily expose it to electricity price risk and interest rate risk. In addition, the Corporation operates consulting businesses in foreign countries and enters into foreign currency transactions which expose it to foreign currency risk.

(A) *Energy prices*

The Corporation's revenue is exposed to fluctuations in the market price of electricity in Tasmania. In addition, on 1 January 2014 wholesale regulation began in Tasmania. The wholesale pricing methodology links Tasmanian regulated contract prices to Victorian market prices. The Corporation's revenue is also exposed to fluctuations in the Victorian market price to the extent of electricity flows over Basslink, and through the variable portion of the Basslink facility fee. The Corporation is also exposed to fluctuations in electricity market prices in all NEM regions in relation to its retail operation in Victoria and other NEM regions. Exposure to these fluctuations in market price is managed through the use of derivative contracts executed in all regions of the NEM in accordance with Board approved policy. Contract volumes for many of the Corporation's current Tasmanian forward contracts are determined by the actual load consumed in the contract period.

Until December 2013 Board-approved policies prescribe the management of electricity trading risk in line with an asset-backed trading model. From December 2013 the Corporation has managed electricity trading risk using an earnings-at-risk approach combined with an asset-backed trading model.

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

The Corporation assesses its electricity price risk exposure through sensitivity analysis. The following table shows the effect on the Income Statement of a feasible movement (10%) in forecast electricity prices.

	2016				2015			
	CONSOLIDATED		PARENT		CONSOLIDATED		PARENT	
	Income $'000	Equity $'000	Income $'000	Equity $'000	Income $'000	Equity $'000	Income $'000	Equity $'000
Increase/(decrease)								
Electricity forward price +10%								
Basslink net liability	23,379	–	23,379	–	(32,451)	–	(32,451)	–
Energy derivative net asset	(127,952)	–	(127,952)	–	(110,860)	–	(110,860)	–
Electricity forward price –10%								
Basslink net liability	(24,118)	–	(24,118)	–	35,661	–	35,661	–
Energy derivative net asset	123,365	–	123,365	–	110,944	–	110,944	–

The sensitivity of the fair value of the Basslink Services Agreement to energy price movements has been based on adjustments to forecast price differences between the Tasmanian and Victorian regions. The sensitivity of the fair value of energy price derivatives to energy price movements has been determined by adjusting the forecast prices for the Tasmanian and mainland regions.

The forecast price methodology is based on published three-year National Electricity Market (NEM) electricity price curves. These prices are determined by market assessment of the many variables that may influence future prices including pending regulation and legislation. The price curves have been validated by comparison to other published price trend predictions in the NEM. Beyond the period when market prices are observable, the Corporation derives forecast prices from an internal model.

The fair value movements in the energy trading derivatives arising from variation in forecast prices are offset by movements in the fair value of the generation assets to the extent that they hedge generation revenue. An energy price derivative instrument may also expose the Corporation to commodity price risk.

(B) *Interest rates*

The Corporation's exposure to changes in market interest rates arises primarily from the Corporation's borrowings and the Basslink contracts.

Cash flow hedges

The Corporation has entered into interest rate swap contracts to achieve an interest rate risk exposure profile that is consistent with the long-term cash flow stability and the debt management strategy of the Corporation. Interest rate exposure on specific loans is managed using highly effective hedge derivatives. The Corporation applies hedge accounting treatment to hedges of the Tascorp debt as described in note 1.2(r).

In pursuit of these objectives, the Corporation manages its debt through setting and achieving benchmarks for the two key portfolio indicators of repricing profile and weighted average term to maturity.

At 30 June 2016 fixed rate loans varied from 2.60% to 5.45% (2015: 3.01% to 6.92%). Floating rates were based on bank bill rates and these varied from 1.89% to 1.96% (2015: 2.7% to 3.2%).

The Government Guarantee Fee rate varied from 0.6% to 1.7% for this financial year (2015: 0.5% to 1.8%).

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

Basslink

The Basslink Services Agreement (BSA) and Floating Facility Fee Instrument (FFFI) between the Corporation and Basslink Pty Ltd (BPL) establish the rights and obligations of both parties with respect to the operation of Basslink including the monthly payment of the Basslink Facility Fee (BFF) by the Corporation to BPL. These agreements are financial assets and financial liabilities whereby the Corporation is committed to make payments to BPL over the term of the contract should BPL meet its obligations to keep Basslink available in exchange for the right to receive Inter-Regional Revenues (IRRs). The latter has been recognised as a financial asset.

The BSA commenced upon successful commissioning of Basslink on 28 April 2006 and was for a term of 25 years, with an option for a further 15 years. Basslink effectively gives Tasmania, including Hydro Tasmania, physical access to the Victorian region of the NEM.

The Corporation entered into the Basslink Facility Fee Swap (BFFS) in 2002 for a 25-year term to eliminate the interest rate and foreign exchange risk arising from the Basslink construction and operational agreements. The BFFS hedged the interest rate and foreign exchange risk during construction and swapped the floating interest rate exposure in the BFF. The inherent fixed interest rate is 7.83%.

The Corporation assesses its interest rate risk exposure through sensitivity analysis. The following table shows the effect on the Income Statement of a movement of 1 basis point (bps) in forecast interest rates.

	2016				2015			
	CONSOLIDATED		PARENT		CONSOLIDATED		PARENT	
	Income $'000	Equity $'000	Income $'000	Equity $'000	Income $'000	Equity $'000	Income $'000	Equity $'000
Increase/(decrease)								
Forward interest rates +0.1 bps								
Financial assets	1,443	–	1,443	–	1,378	(3)	1,378	(3)
Financial liabilities	(1,578)	(31)	(1,578)	(31)	(1,521)	(34)	(1,521)	(34)
Forward interest rates –0.1 bps								
Financial assets	(1,443)	–	(1,443)	–	(1,378)	3	(1,378)	3
Financial liabilities	1,578	31	1,578	31	1,521	34	1,521	34

The sensitivity of the fair value of financial assets and liabilities to interest rates has been determined by adjusting closing published forward market rates. The impact on the fair value of financial instruments is calculated using standard Australian treasury valuation formulae.

The Weighted Average Cost of Debt (WACD) for 2016 for both the parent and consolidated entities is 5.32% (2015: 6.67%). This incorporates both loans and interest rate swaps as at the reporting date and also includes the average government guarantee fee of 0.99% (2015: 1.09%).

(C) *Foreign currency rates*

The Corporation owns and operates companies in India and South Africa and is exposed to foreign exchange rate risks upon translation into Australian dollars. This risk is considered to be insignificant relative to the Corporation as a whole.

The Corporation transacts in foreign currency for operational and capital requirements and enters into forward foreign exchange contracts to eliminate currency exposure in accordance with Board-approved policy. Due to the relatively small size of the transactions the Corporation considers the risk exposure to be insignificant.

The Corporation ensures that the term of the hedge derivatives matches the term of the currency exposure in order to maximise hedge effectiveness and enable application of hedge accounting.

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

The settlement dates and principal amounts of the Corporation's outstanding foreign exchange hedge contracts were:

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Receivables				
Not later than one year	296	6,308	296	6,308
Later than one year but not later than two years	59	148	59	148
Later than two years	–	58	–	58
Total	355	6,514	355	6,514
Payables				
Not later than one year	21,797	22,849	21,797	22,849
Later than one year but not later than two years	6,493	8,250	6,493	8,250
Later than two years	1,889	1,417	1,889	1,417
Total	30,179	32,516	30,179	32,516

(iii) Credit Risk

Credit risk represents the loss that would be recognised at the reporting date if counterparties failed to meet their contractual obligations. The Corporation measures credit risk on non-derivative financial instruments as the carrying amount of any instruments that represent an asset to the Corporation.

Derivative Financial Instruments

The credit exposure on a derivative financial instrument is its positive market valuation at the reporting date. In addition apotential exposure, calculated broadly in accordance with Reserve Bank guidelines, is included for all interest rate swaps. These include the BFFS and the Basslink credit swaps.

In the main, the Corporation reduces credit risk on derivative financial assets by only transacting with high-credit-quality counterparties up to a pre-determined counterparty limit or by limiting credit exposure to unrated counterparties. The Corporation also obtains credit support for counterparties of low credit quality. Interest rate swaps and energy contracts are subject to the industry recommended International Swap Dealers Association (ISDA) documentation. Where possible this documentation contains clauses enabling the netting of exposures.

Receivables

Receivables represent amounts due from AEMO, electricity, gas, treasury and environmental energy product counterparties, consulting service clients and retail energy customers.

The Corporation's credit exposure to AEMO is mitigated by the provisions of the National Electricity Rules (NER). The NER define the rules for conduct of the wholesale electricity market.

Consulting services clients are spread across diverse industries and geographical locations. Ongoing credit evaluation is performed on the financial condition of debtors, and where necessary recovery action is undertaken and contract penalty clauses activated.

Appropriate credit management practices are adopted to protect against exposure to non-payment by retail customers.

Basslink credit swaps

While the BFFS transaction has been executed with a single counterparty, the Corporation has also entered into supplementary interest rate swap transactions with other counterparties to mitigate the potential credit risk associated with a single counterparty. These swaps are readily tradeable financial instruments.

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

	CONSOLIDATED			
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Credit risk exposure by instrument type				
Financial assets				
Investments and bank balances	82,698	15,694	76,366	8,554
Receivables	380,872	250,476	215,135	99,076
Basslink financial asset	–	350	–	350
Derivative financial instruments				
Interest rate swaps	–	–	–	–
Forward foreign exchange contracts	–	–	–	–
Energy price derivatives	45,928	20,300	45,928	20,300
Environmental product contracts	98,687	23,148	98,687	23,148
Total credit risk exposure	608,185	309,968	436,116	151,428
Credit risk exposure by institution ratings				
Australian-based institutions				
AA+ to AA– ratings	72,556	57,678	19,395	13,542
A+ to A– ratings	347	6	347	6
BBB+ to BBB– ratings	35,956	1,739	35,956	1,739
Unrated	497,467	233,371	380,418	120,597
	606,326	292,794	436,116	135,884
Overseas-based institutions				
AA+ to AA– ratings	–	9,141	–	9,141
A+ to A– ratings	1,679	8,019	–	6,403
BBB+ to BBB– ratings	180	14	–	–
Unrated	–	–	–	–
	1,859	17,174	–	15,544
Total credit risk exposure	608,185	309,968	436,116	151,428

iv) Liquidity Risk

Liquidity risk represents the possibility that the Corporation may be unable to settle an obligation on the due date.

To manage this risk, the Corporation maintains adequate stand-by funding facilities and other arrangements as detailed in note 15.

The Corporation's exposure at 30 June 2016 is detailed in the tables below. The tables are based on the undiscounted cash flows of the financial assets and liabilities based on the date on which the payments fall due. The tables include principal and interest cash flows.

The Corporation monitors its liquidity risk on a daily basis. The following table details the Corporation's liquidity exposure.

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

	2016 CONSOLIDATED				2016 PARENT			
	Less than 6 months $'000	6–12 months $'000	1–5 years $'000	Over 5 years $'000	Less than 6 months $'000	6–12 months $'000	1–5 years $'000	Over 5 years $'000
Financial assets								
Loans and receivables								
Cash	21,395	–	–	–	15,066	–	–	–
Receivables	380,872	–	–	–	215,135	–	–	–
Held to maturity								
Investments	61,303	–	–	–	61,300	–	–	–
Fair value through profit or loss								
Credit swaps	6	–	–	–	6	–	–	–
Forward foreign exchange contracts	14,362	14,136	108,203	175,384	14,362	14,136	108,203	175,384
Energy price derivatives	77,175	45,166	52,376	–	77,175	45,166	52,376	–
Basslink financial asset	24,379	24,379	174,614	432,219	24,379	24,379	174,614	432,219
Other assets	5,624	–	–	–	4,325	–	–	–
	585,116	83,681	335,193	607,603	411,748	83,681	335,193	607,603
Financial liabilities								
Loans and receivables								
Accounts payable	308,562	–	–	–	220,486	–	–	–
Tascorp loans	26,457	67,091	500,200	496,204	26,457	67,091	500,200	496,204
Designated hedge accounting derivatives								
Interest rate swaps	990	1,065	6,490	1,879	990	1,065	6,490	1,879
Fair value through profit or loss								
Forward foreign exchange contracts	601	363	625	–	601	363	625	–
Credit swaps	14,362	14,136	108,203	175,384	14,362	14,136	108,203	175,384
Basslink Services Agreement	39,261	39,261	289,497	835,620	39,261	39,261	289,497	835,620
Basslink Facility Fee Swap	19,396	24,877	186,033	393,458	19,396	24,877	186,033	393,458
Energy price derivatives	124,512	107,626	248,126	41,000	124,512	107,626	248,126	41,000
Other liabilities	2,505	–	–	–	2,417	–	–	–
	536,646	254,419	1,339,174	1,943,545	448,482	254,419	1,339,174	1,943,545

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

	2015 CONSOLIDATED				2015 PARENT			
	Less than 6 months $'000	6–12 months $'000	1–5 years $'000	Over 5 years $'000	Less than 6 months $'000	6–12 months $'000	1–5 years $'000	Over 5 years $'000
Financial assets								
Loans and receivables								
Cash	15,683	–	–	–	8,554	–	–	–
Receivables	250,476	–	–	–	99,076	–	–	–
Held to maturity								
Investments	11	–	–	–	–	–	–	–
Fair value through profit or loss								
Credit swaps	76	12	1	–	76	12	1	–
Forward foreign exchange contracts	13,962	13,870	90,477	116,348	13,962	13,870	90,477	116,348
Energy price derivatives	24,992	5,165	36,516	4,864	24,992	5,165	36,516	4,864
Basslink financial asset	29,435	29,435	221,043	578,901	29,435	29,435	221,043	578,901
Other assets	20,757	–	–	–	8,603	–	–	–
	355,392	48,482	348,037	700,113	184,698	48,482	348,037	700,113
Financial liabilities								
Loans and receivables								
Accounts payable	157,147	–	–	–	88,754	–	–	–
Tascorp loans	61,051	36,232	501,457	419,024	61,051	36,232	501,457	419,024
Designated hedge accounting derivatives								
Interest rate swaps	949	987	5,113	1,527	949	987	5,113	1,527
Fair value through profit or loss								
Forward foreign exchange contracts	682	307	890	–	682	307	890	–
Credit swaps	13,962	13,907	90,444	116,344	13,962	13,907	90,444	116,344
Basslink Services Agreement	32,566	32,566	283,899	932,302	32,566	32,566	283,899	932,302
Basslink Facility Fee Swap	19,372	19,306	131,858	254,041	19,372	19,306	131,858	254,041
Energy price derivatives	25,128	25,917	99,645	63,707	25,128	25,917	99,645	63,707
Other liabilities	726	–	–	–	600	–	–	–
	311,583	129,222	1,113,306	1,786,945	243,064	129,222	1,113,306	1,786,945

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

(c) Fair values

AASB 139 requires recognition of some financial assets and financial liabilities at fair value on the Balance Sheet.

Where possible this fair value is determined from prices quoted for the financial instrument on an active market.

In the event of a lack of quoted market prices, the fair value of financial instruments has been calculated using valuation models that make maximum use of available market inputs to produce a reasonable estimate of the price that would be determined by the market. In many cases this entails projecting future cash flows that are then discounted to present value using the appropriate discount rate, including the credit risk of the out of the money party to the agreement. The calculation of projected future cash flows requires, among other things, a forecast electricity price. Beyond the period when market prices are observable, the Corporation derives forecast prices from an internal model.

The fair values of financial assets and liabilities carried at fair value through profit or loss are determined using the following valuation inputs:

	CONSOLIDATED							
	2016				2015			
	Level 1 Quoted market prices $'000	Level 2 Valuation technique – market observable inputs $'000	Level 3 Valuation technique – non market observable inputs $'000	Total $'000	Level 1 Quoted market prices $'000	Level 2 Valuation technique – market observable inputs $'000	Level 3 Valuation technique – non market observable inputs $'000	Total $'000
Financial assets								
Fair value through profit or loss								
Forward foreign exchange contracts	–	9	–	9	–	168	–	168
Credit swaps	–	260,646	–	260,646	–	187,535	–	187,535
Basslink financial asset	–	–	334,585	334,585	–	–	402,910	402,910
Energy price derivatives	94,667	48,172	26,928	169,767	12,328	20,816	31,804	64,948
	94,667	308,827	361,513	765,007	12,328	208,519	434,714	655,561
Financial liabilities								
Designated hedge accounting derivatives								
Interest rate swaps	–	9,608	–	9,608	–	7,735	–	7,735
Fair value through profit or loss								
Forward foreign exchange contracts	–	1,039	–	1,039	–	1,402	–	1,402
Credit swaps	–	260,646	–	260,646	–	187,535	–	187,535
Basslink Services Agreement	–	–	476,583	476,583	–	–	521,375	521,375
Basslink Facility Fee Swap	–	–	409,582	409,582	–	–	342,459	342,459
Energy price derivatives	89,810	64,286	360,055	514,151	2,146	12,946	146,165	161,257
	89,810	335,579	1,246,220	1,671,609	2,146	209,618	1,009,999	1,221,763

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

	PARENT							
	2016				2015			
	Level 1 Quoted market prices $'000	Level 2 Valuation technique – market observable inputs $'000	Level 3 Valuation technique – non market observable inputs $'000	Total $'000	Level 1 Quoted market prices $'000	Level 2 Valuation technique – market observable inputs $'000	Level 3 Valuation technique – non market observable inputs $'000	Total $'000
Financial assets								
Fair value through profit or loss								
Forward foreign exchange contracts	–	9	–	9	–	168	–	168
Credit swaps	–	260,646	–	260,646	–	187,535	–	187,535
Basslink financial asset	–	–	334,585	334,585	–	–	402,910	402,910
Energy price derivatives	94,667	48,172	26,928	169,767	12,328	20,816	31,804	64,948
	94,667	308,827	361,513	765,007	12,328	208,519	434,714	655,561
Financial liabilities								
Designated hedge accounting derivatives								
Interest rate swaps	–	9,608	–	9,608	–	7,735	–	7,735
Fair value through profit or loss								
Forward foreign exchange contracts	–	1,039	–	1,039	–	1,402	–	1,402
Credit swaps	–	260,646	–	260,646	–	187,535	–	187,535
Basslink Services Agreement	–	–	476,583	476,583	–	–	521,375	521,375
Basslink Facility Fee Swap	–	–	409,582	409,582	–	–	342,459	342,459
Energy price derivatives	89,810	64,286	360,055	514,151	2,146	12,946	146,165	161,257
	89,810	335,579	1,246,220	1,671,609	2,146	209,618	1,009,999	1,221,763

There were no transfers between Level 1, 2 and 3 during the year.

Basslink financial instruments

The Basslink financial instruments comprise the Basslink Services Agreement (BSA), Floating Facility Fee Instrument (FFFI) and Basslink Facility Fee Swap (BFFS). The fair value of the Basslink financial instruments has been calculated using a valuation model based on the present value of expected contractual cash flows. The fair value of expected receipts of inter-regional revenues (IRRs) under the BSA has been separately calculated based on experience to date and projected operating conditions and reported as a financial asset. The expected contractual payments under the BSA, FFFI and BFFS have been reported as financial liabilities. These represent the Basslink facility fees and interest rate swap settlements payable under these contracts.

The fair value of the BSA has been calculated using the pre-tax weighted average cost of capital as the nominal discount rate. The fair values of the FFFI and BFFS have been calculated using a 17-year forward market interest rate.

The BSA, FFFI and BFFS are not readily tradeable financial instruments.

20. FINANCIAL INSTRUMENTS DISCLOSURES (CONTINUED)

Tasmanian energy price derivatives

The Corporation has entered into energy contracts in the Tasmanian market to manage its exposure to market price risks and has developed a model to value these contracts. To the extent that each contract incorporates special term, load or other conditions, the price at commencement of the contract will be at a discount from the spot price at that time. Fair value at balance date has been calculated as the present value of the difference between the projected market price and each contract price, taking into account any discount provided on inception. Projected market price is based on an internally generated long-term Tasmanian energy price curve.

The financial instruments above are valued using non-market unobservable inputs; the following table details the nature and sensitivities of those inputs. For a description of the valuation method relating to fair value and unobservable inputs refer to note 20(c).

The relationship of unobservable inputs to the fair value of energy price derivatives is as follows:

- The higher the electricity price, the smaller the fair value liability of energy price derivatives.

The relationship of unobservable inputs to the fair value of the Basslink Services Agreement and Facility Fee Swap liability is as follows:

- The higher the weighted average cost of capital, the smaller the liability.
- The higher the price spread, the smaller the liability.
- The higher the long-term-average generation forecast, the smaller the liability.
- The higher the counterparty credit margin, the larger the liability.
- The higher the long-term interest rate, the larger the liability.

Description	Fair value at end of year $'000	Valuation technique	Significant unobservable input	Range (weighted average)	Valuation change $'000
Energy price derivatives	(310,244)	Discounted cash flow	Long-term flat electricity price	–10% to +10%	127,052 to (132,787)
Basslink Services Agreement and Facilty Fee Swap	(546,861)	Discounted cash flow	Weighted average cost of capital	10% to 12% (11%)	(15,306) to 13,960
			Average Victorian price spread	–10% to +10%	(24,118) to 23,379
			Long-term average annual generation (GWh)	8,700 to 9,300 (9,000)	(44,193) to 44,193
			Counterparty credit margin	0.34% to 0.74% (0.54%)	3,571 to (3,499)
			Long-term interest rate	2.09% to 2.49% (2.29%)	(2,704) to 2,664

21. COMMITMENTS FOR EXPENDITURE

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
(a) Capital expenditure commitments				
Not later than 1 year	25,730	31,784	25,730	31,784
Over 1 year and up to 2 years	8,956	9,451	8,956	9,451
Later than 2 years	1,639	449	1,639	449
	36,325	41,684	36,325	41,684
(b) Operating lease commitments				
Future minimum lease payments				
Not later than 1 year	4,938	4,911	3,633	3,670
Over 1 year and up to 2 years	4,878	4,876	3,633	3,640
Over 2 years and up to 5 years	10,234	12,093	9,196	9,828
Later than 5 years	8,685	11,860	8,685	11,860
	28,735	33,740	25,147	28,998

The majority of the Corporation's leases are for office accommodation.

Payments made under operating leases are expensed as incurred over the term of the lease, except where an alternative basis is more representative of the pattern of benefits to be derived from the leased property.

(c) Other commitments				
Not later than 1 year	19,219	6,099	19,219	6,099
Over 1 year and up to 2 years	–	5,282	–	5,282
Over 2 years and up to 5 years	–	1,460	–	1,460
Later than 5 years	–	–	–	–
	19,219	12,841	19,219	12,841

The other commitments relate to pass-through costs for consulting work, energy transmission charges, contracted maintenance services and supply of general goods and services.

22. CONTINGENT ASSETS AND LIABILITIES

Under the terms of ASIC Instrument [15-0576] and [15-0577], AETV Pty Ltd and Momentum Energy Pty Ltd have been granted relief from the requirement to prepare audited financial statements. The Corporation has entered into an approved deed of indemnity for the cross-guarantee of liabilities with those controlled entities. The parties to the deed are the Hydro-Electric Corporation, AETV Pty Ltd and Momentum Energy Pty Ltd.

A consolidated statement of comprehensive income and retained profits, and a consolidated statement of financial position, comprising the company and controlled entities which are a party to the Deed of Cross Guarantee, after eliminating all transactions between parties to the Deed, at 30 June 2016, are set out in note 31.

The Corporation has made claims against Basslink Pty Ltd ('BPL') in respect of contractual arrangements between the Corporation and BPL concerning the Basslink interconnector. The claims relate to the outage of the interconnector between 20 December 2015 and 13 June 2016.

23. AUDITOR'S REMUNERATION

	CONSOLIDATED		PARENT	
	2016 $	2015 $	2016 $	2015 $
Amounts received, or due and receivable, by the Auditor-General from the Corporation for auditing the financial statements of the Corporation	380,580	383,400	380,580	383,400
Amounts received, or due and receivable, for compliance audits	9,400	9,150	9,400	9,150
Amounts received, or due and receivable to Deloitte Touche Tohmatsu, for local and international tax matters	134,648	64,635	134,648	64,635
	524,628	457,185	524,628	457,185

24. KEY MANAGEMENT PERSONNEL COMPENSATION

(a) Remuneration policy

Remuneration levels for key management personnel of the Corporation are competitively set to attract and retain appropriately qualified and experienced executives. The HR and Remuneration Committee, a Committee of the Board, obtains independent advice on the appropriateness of remuneration packages given trends in comparative entities both locally and interstate and the objectives of the Corporation's remuneration policy.

The remuneration structures take into account:

- the capability and experience of key management personnel
- the key management personnel's ability to control the relevant segments' performance
- achievement of the Corporation's strategic initiatives
- government wages and salaries expectations.

Remuneration packages include contribution to post-employment superannuation plans.

The Corporation has complied with Treasury guidelines in the presentation of the executive remuneration in 2016.

Non-executive directors' remuneration

Non-executive directors are appointed by the Governor-in-Council on the joint recommendation of the Treasurer and Portfolio Minister. Each instrument of appointment is for a maximum period of three years and prescribes the relevant remuneration provisions. Directors can be re-appointed.

The level of fees paid to non-executive directors is administered by the Department of Premier and Cabinet.

Superannuation is paid at the appropriate rate as prescribed by superannuation guarantee legislation.

No other leave or retirement benefits are accrued or paid to directors.

Directors are entitled to reimbursement of expenses incurred while attending to Board business.

Non-executive directors' remuneration is reviewed periodically with increases subject to approval by the Treasurer and Portfolio Minister.

Senior executives

The employment terms and conditions of senior executives are contained in individual employment contracts and prescribe total remuneration, superannuation, annual and long service leave and salary sacrifice provisions.

The CEO is appointed by the Premier and Portfolio Minister following selection and recommendation by the Board. The Board consults with the Government Business Executive Remuneration Advisory Panel when determining the CEO's remuneration package.

The CEO and executive level employees are also eligible for a short-term incentive payment subject to meeting agreed key performance indicators. The CEO and Executive Remuneration policy is aligned to Hydro Tasmania's strategic objectives and business performance results across a mix of corporate and individual measures. The CEO and Executive Remuneration Policy is also aligned with guidelines issued by the Treasurer.

Short-term incentive payments are those that depend on achieving specified performance goals within specified timeframes. These payments are non-recurrent and are capped at a percentage of base salary.

The performance of each senior executive, including the CEO, is reviewed annually including a review of the remuneration package.

The terms of employment of each senior executive, including the CEO, contain a termination clause that requires the senior executive or the CEO to provide a minimum notice period of up to 6 months prior to termination of the contract.

The aggregate compensation to key management personnel of the Corporation is:

	2016 $'000	2015 $'000
Short-term employee benefits	3,322	3,818
Post-employment benefits	334	344
Other long-term benefits	–	–
Termination benefits	–	378
	3,656	4,540

24. KEY MANAGEMENT PERSONNEL COMPENSATION (CONTINUED)

(b) Director remuneration

The following tables disclose the remuneration details in bands for each person that acted as a non-executive director during the current and previous financial years:

Director	2016 Directors' fees $'000	Committee fees $'000	Superannuation $'000	Total 2015–16 $'000
Mr G Every-Burns – Chairman	111	10	12	133
Mr S Eslake	52	14	6	72
Ms J Healey – resigned 31/08/2015	9	3	1	13
Mr K Hodgson – appointed 13/06/2016	2	–	–	2
Ms S Hogg – appointed 24/08/2015	44	8	5	57
Ms T Jakszewicz	52	7	6	65
Mr S Kalinko – resigned 16/12/2015	25	4	3	32
Total	295	46	33	374

Director	2015 Directors' fees $'000	Committee fees $'000	Superannuation $'000	Total 2014–15 $'000
Dr D Crean – Chairman to 17/10/14*	77	6	7	90
Mr S Eslake	51	12	6	69
Mr G Every-Burns – Chairman from 17/10/14	92	8	10	110
Ms J Healey	51	16	6	73
Ms T Jakszewicz	51	6	5	62
Mr S Kalinko	51	8	6	65
Total	373	56	40	469

*Dr Crean received payment of normal remuneration in lieu of notice up until 31 January 2015.

24. KEY MANAGEMENT PERSONNEL COMPENSATION (CONTINUED)

(c) Executive remuneration

The following table discloses the remuneration details of senior executives during the current financial year:

	2016							
Executive	Base salaries $'000	Short-term incentive payments $'000	Termin-ation payments $'000	Super-annuation $'000	Vehicles $'000	Other benefits $'000	Other non-monetary benefits $'000	Total 2015–16 $'000
Mr E Albertini Chief Operating Officer	375	–	–	19	8	–	12	414
Mr A Catchpole Director, Strategy & Market Development	331	–	–	19	6	1	10	367
Ms T Chu Managing Director Entura	256	–	–	19	5	1	8	289
Mr S Davy Chief Executive Officer	475	–	–	19	14	–	14	522
Mr A Evans Corporate Secretary Governance & Secretary	254	–	–	19	8	1	8	290
Mr G Flack Director, Wholesale Markets	288	–	–	32	11	–	10	341
Mr P Geason Managing Director Momentum	324	–	–	33	–	–	10	367
Mr M Smith Chief Financial Officer	331	–	–	19	–	–	10	360
Mr L Stow Chief Information Officer	292	–	–	32	–	–	8	332
Total	2,926	–	–	211	52	3	90	3,282

24. KEY MANAGEMENT PERSONNEL COMPENSATION (CONTINUED)

(c) Executive remuneration

The following table discloses the remuneration details of senior executives during the current and previous financial years:

	2015							
Executive	Base salaries $'000	Short-term incentive payments $'000	Termin-ation payments $'000	Super-annuation $'000	Vehicles $'000	Other benefits $'000	Other non-monetary benefits $'000	Total 2014–15 $'000
Mr E Albertini Chief Operating Officer	375	60	–	19	6	–	12	472
Mr A Catchpole Director, Strategy & Market Development	325	44	–	19	9	4	10	411
Ms T Chu Managing Director Entura	256	26	–	19	6	2	8	317
Mr N Clark Managing Director Momentum (to 12/12/14)	161	62	378	33	11	1	4	650
Mr S Davy Chief Executive Officer	466	84	–	19	10	–	14	593
Mr A Evans GM Corporate Governance & Secretary	248	34	–	19	9	2	8	320
Mr G Flack Director, Wholesale Markets	282	40	–	32	10	1	9	374
Mr P Geason Managing Director Momentum	153	24	–	15	–	–	3	195
Mr M Smith Chief Financial Officer	325	44	–	19	2	–	10	400
Mr L Stow Chief Information Officer from 18/07/14)	266	40	–	25	–	1	8	340
Total	2,857	458	378	219	63	11	85	4,071

The Directors of the Corporation as at 30 June 2016 were:

Mr S Davy

Mr S Eslake

Mr G Every-Burns

Mr K Hodgson

Ms S Hogg

Ms T Jakszewicz

During the year one non-executive Director of the Corporation undertook an overseas trip (one) at a cost of $9,065 ($2015: $0).

Employees undertook overseas travel on 199 occasions during the year at a cost of $980,812 (2015:$1,010,431). Of these 90, at a cost of $360,025 (2015: $403,184), were made while undertaking work for clients. The cost of Entura travel on client business was recovered from these clients.

25. RELATED PARTY INFORMATION

	Sales to related parties		Purchases from related parties		Amounts owed by related parties		Amounts owed to related parties	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000	2016 $'000	2015 $'000	2016 $'000	2015 $'000
CONSOLIDATED								
Woolnorth Wind Farm Holding Pty Ltd	36,570	17,966	967	4,653	167	272	–	–
Cathedral Rocks Construction and Management Pty Ltd	–	–	–	–	–	–	–	–
Kakamas Hydro Electric Power (Pty) Ltd	–	–	–	–	–	–	–	–
PARENT								
HT Wind Operations Pty Ltd	–	–	–	–	–	–	151,169	147,498
Cathedral Rocks Construction and Management Pty Ltd	–	–	–	–	–	–	–	–
Bell Bay Power Pty Ltd	51	35	–	–	788	362	–	–
Bell Bay Three Pty Ltd	–	–	–	–		–	1,424	1,424
Lofty Ranges Power Pty Ltd	–	–	–	–	357	481	–	–
Hydro Tasmania Consulting (Holding) Pty Ltd	–	–	–	–	–	4,035	–	–
Hydro Tasmania Consulting India Pty Ltd	–	–	–	–	–	–	–	–
Hydro Tasmania Wind Developments Pty Ltd	–	–	–	–	–	–	516	221
RE Storage Project Holding Pty Ltd	–	–	18	–	846	893	–	–
Heemskirk Windfarm Pty Ltd	–	–	–	–	–	95	–	–
Studland Bay Holdings Pty Ltd	–	–	–	–	–	11,370	–	–
Bluff Point Holdings Pty Ltd	–	–	–	–	–	18,666	–	–
Momentum Energy Pty Ltd	61,846	53,957	253	253	–	21,667	6,014	–
AETV Pty Ltd	–	–	8,832	7,213	315,247	296,034	–	–
Hydro Tasmania South Africa (Pty) Ltd	–	–	–	–	112	42	–	–
Hydro Tasmania Neusberg (Pty) Ltd	–	–	–	–	314	–	–	–

Transactions with related parties are made at arm's length at normal market prices and on normal commercial terms.

Outstanding balances at year end are unsecured and interest free. Settlement with related parties not wholly owned occurs in cash. Cash settlement does not occur between wholly-owned subsidiaries and the parent.

There were no transactions with director-related entities during the year.

Amounts owed by AETV to the parent are fully provided for.

26. EVENTS SUBSEQUENT TO BALANCE DATE

Hydro Tasmania has been engaged in discussions with a Chinese consortium consisting of HydroChina International and Huadong. The discussions involve investigating the potential of a joint venture regarding the Entura business.

After due enquiry, there have not been any other matters or circumstances since the end of the financial year that have significantly affected or may have significantly affected the operations of the Corporation, the results of those operations or the state of affairs of the Corporation in subsequent financial years.

27. GOVERNMENT GRANTS

The Corporation has recognised $11.4 million of grant revenue during the year (2015: $9.7 million) as detailed below:

Community Service Obligations

On 1 June 1999, the State Government agreed to formally recognise the cost of concessions to eligible customers living on the Bass Strait Islands as Community Service Obligations (CSOs), as defined under the Government Business Enterprises Act 1995.

During the year ended 30 June 2016, the State paid the Corporation $11.3 million (2015: $9.6 million) as reimbursement of the cost of providing CSO.

Department of Resources, Energy and Tourism – Flinders Hub

During the year ended 30 June 2015 the Commonwealth Government entered into a $5.5 million funding agreement through the Australian Renewable Energy Agency (ARENA) for the development of a modular hybrid energy solution on Flinders Island to displace more than 60% of the island's diesel-generated electricity. The total project value is $12.8 million, of which ARENA will fund $5.5 million.

During the year ended 30 June 2016 the corporation did not receive any grant income (2015: $0.14 million) for the Flinders Island Hybrid Energy Hub project.

ARENA has currently committed to providing a further $4.86 million in funding up to 31 December 2016, with an additional $0.5 million contingency grant available.

Department of Resources, Energy and Tourism – Rottnest Island Renewable Energy

During the year ended 30 June 2016 the Commonwealth Government entered into a $4.01 million funding agreement through the Australian Renewable Energy Agency (ARENA) to reduce diesel fuel usage by the introduction of solar energy. Also the project will demonstrate the ability to desalinate water at times of high renewable energy.

During the year ended 30 June 2016 the corporation did not receive any grant income for the Rottnest Island Renewable project. The total project value is $7.3 million, of which ARENA will fund $5.5 million.

Regional Development Australia – Waddamana Power Station Heritage Site Improvement Project

During the year ended 30 June 2016 the Commonwealth Government entered into a $50 000 funding agreement through the Tourism Demand Driver Infrastructure Fund to improve the accessibility and tourism experience at the Waddamana Power Station Heritage Site and Great Lake Power Scheme.

The total project value is $100 000, of which the corporation will receive $50 000 in funding. During the year ended 30 June 2016 the corporation received $45 000.

28. CONTROLLED ENTITIES

	Footnote	Country of incorporation	Percentage of share held by Hydro-Electric Corporation 2016 %	2015 %
Parent entity				
Hydro-Electric Corporation				
Controlled entities				
Bell Bay Power Pty Ltd	1	Australia	100	100
Lofty Ranges Power Pty Ltd	2	Australia	100	100
Bell Bay Three Pty Ltd	3	Australia	100	100
RE Storage Project Holding Pty Ltd	4	Australia	100	100
Hydro Tasmania Consulting (Holding) Pty Ltd	5	Australia	100	100
Momentum Energy Pty Ltd	6	Australia	100	100
HT Wind Operations Pty Ltd	7	Australia	100	100
Hydro Tasmania South Africa (Pty) Ltd	8	South Africa	100	100
AETV Pty Ltd	9	Australia	100	100

Footnotes

1. Bell Bay Power Pty Ltd was incorporated on 20 December 2001.
2. Lofty Ranges Power Pty Ltd was incorporated on 26 April 2002.
3. Bell Bay Three Pty Ltd was incorporated on 7 December 2005.
4. RE Storage Project Holding Pty Ltd was incorporated on 11 April 2006.
5. Hydro Tasmania Consulting (Holding) Pty Ltd was incorporated on 20 October 2006. It holds a 99.9% interest (9999 shares) in Hydro Tasmania Consulting India Private Limited with Hydro Electric Corporation holding 1 share.
6. Hydro Tasmania acquired 51% of the issued capital of Momentum Energy Pty Ltd on 31 August 2008. The remaining 49% of the issued capital was acquired on 30 September 2009. Momentum was incorporated on 8 July 2002.
7. Hydro Tasmania acquired 100% of the issued capital of HT Wind Operations Pty Ltd on 30 June 2011. HT Wind Operations Pty Ltd owns 100% of Woolnorth Bluff Point Holdings Pty Ltd, Woolnorth Studland Bay Holdings Pty Ltd, Heemskirk Holdings Pty Ltd, HT Wind Developments Pty Ltd and HT Wind New Zealand Pty Ltd. HT Wind Operations Pty Ltd was registered on 29 November 2004.
8. Hydro Tasmania acquired 100% ownership of Hydro Tasmania South Africa (Pty) Ltd on 23 January 2012. Hydro Tasmania South Africa (Pty) Ltd holds a 92% ownership interest in Hydro Tasmania Neusberg (Pty) Ltd.
9. AETV Pty Ltd was transferred to Hydro Tasmania by Ministerial direction on midnight 1 June 2013.

29. INTEREST IN JOINT VENTURES

			CONSOLIDATED				PARENT			
			Ordinary share ownership interest		Joint venture agreement voting rights		Ordinary share ownership interest		Joint venture agreement voting rights	
	Principal activity	Joint venture balance date	2016 %	2015 %	2016 %	2015 %	2016 %	2015 %	2016 %	2015 %
Cathedral Rocks Construction and Management Pty Ltd	Wind farm construction and operation	30 June	50	50	50	50	50	50	50	50
SA Water Corporation & Lofty Ranges Power Pty Ltd Joint Venture	Mini-hydro operation	30 June	50	50	50	50	–	–	–	–
Woolnorth Wind Farm Holding Pty Ltd	Wind farm operation	30 June	25	25	25	25	–	–	–	–
Kakamas Hydro Electric Power (Pty) Ltd	Hydro operation	30 June	25	25	25	25	–	–	–	–

The Corporation holds a 50% interest in a dormant joint venture (Cathedral Rocks Construction and Management Pty Ltd) with Acciona Energy Oceania Pty Ltd. The joint venture was previously engaged in managing the construction and operation of a wind farm at Cathedral Rocks, South Australia (note 30).

A subsidiary of the Corporation, Lofty Ranges Power Pty Ltd, holds a 50% interest in an unincorporated joint venture operation named SA Water Corporation & Lofty Ranges Power Pty Ltd Joint Venture. The principal activity of the joint venture is the operation of mini hydro facilities.

A subsidiary of the Corporation, HT Wind Operations Pty Ltd, became a partner in the Woolnorth Wind Farm Holding Pty Ltd joint venture with Shenhua Clean Energy Holding Pty Ltd in February 2012 and holds a 25% interest in the joint venture. The principal activity of the joint venture is to operate wind farms.

A subsidiary of the Corporation, Hydro Tasmania South Africa (Pty) Ltd became a joint venture partner in the Kakamas Hydro Electric Power (Pty) Ltd joint venture during 2013 and holds a 25% interest in the joint venture. The principal activity of the joint venture is to develop and operate a hydro scheme in Neusberg, South Africa.

30. INCORPORATED JOINT VENTURES

The income statements and balance sheets of the following incorporated joint ventures are not consolidated but are instead accounted for under the equity method.

	CONSOLIDATED			
	Woolnorth Wind Farm Joint Venture 25% 2016 $'000	Cathedral Rocks Construction and Management Pty Ltd 50% 2016 $'000	Kakamas Hydro Electric Power Pty Ltd 25% 2016 $'000	Total 2016 $'000
Income statement				
Revenue	88,492	1	4,900	93,393
Expenses	83,244	–	8,625	91,869
Profit/(loss) before income tax expense	5,248	1	(3,725)	1,524
Income tax expense	(1,935)	–	–	(1,935)
Net profit/(loss) after tax	3,313	1	(3,725)	(411)
Balance sheet				
Current assets	87,047	53	5,905	93,005
Non-current assets	561,018	–	47,297	608,315
Total assets	648,065	53	53,202	701,320
Current liabilities	55,065	–	4,043	59,108
Non-current liabilities	403,306	–	41,684	444,990
Total liabilities	458,371	–	45,727	504,098
Net assets	189,694	53	7,475	197,222
Share of accumulated profits/(losses)				
Share of accumulated profit/(losses) at the beginning of the year	12,547	(22)	(134)	12,391
Share of profit/(loss) before income tax expense	828	1	(931)	(102)
Share of accumulated profits/(losses) at the end of the year	13,375	(21)	(1,065)	12,289
Movements in carrying amount of investment in joint ventures				
Carrying amount at the beginning of the year	64,348	16	4,192	68,556
Dividends received	(4,650)	–	–	(4,650)
Share of profit/(loss) before income tax for the year	828	1	(931)	(102)
Carrying amount at the end of the year	60,526	17	3,261	63,804

30. INCORPORATED JOINT VENTURES (CONTINUED)

	CONSOLIDATED			
	Woolnorth Wind Farm Joint Venture	Cathedral Rocks Construction and Management Pty Ltd	Kakamas Hydro Electric Power Pty Ltd	Total
	25%	50%	25%	
	2015	2015	2015	2015
	$'000	$'000	$'000	$'000
Income statement				
Revenue	85,987	2	3,407	89,396
Expenses	78,238	–	1,033	79,271
Profit/(loss) before income tax expense	7,749	2	2,374	10,125
Income tax expense	(3,032)	–	–	(3,032)
Net profit/(loss) after tax	4,717	2	2,374	7,093
Balance sheet				
Current assets	67,257	52	9,838	77,147
Non-current assets	595,457	–	65,306	660,763
Total assets	662,714	52	75,144	737,910
Current liabilities	26,079	–	7,114	33,193
Non-current liabilities	427,372	–	55,817	483,189
Total liabilities	453,451	–	62,931	516,382
Net assets	209,263	52	12,213	221,528
Share of accumulated profits/(losses)				
Share of accumulated profit/(losses) at the beginning of the year	11,368	(23)	(727)	10,618
Share of profit before income tax expense	1,179	1	593	1,773
Share of accumulated profit/(losses) at the end of the year	12,547	(22)	(134)	12,391
Movements in carrying amount of investment in joint ventures				
Carrying amount at the beginning of the year	65,325	15	3,599	68,939
Dividends received	(2,156)	–	–	(2,156)
Share of profit before income tax for the year	1,179	1	593	1,773
Carrying amount at the end of the year	64,348	16	4,192	68,556

The fair value of the Corporation's investment in joint ventures is equivalent to its carrying value in the absence of a quoted market price for investment shares in joint venture.

The Woolnorth Wind Farm joint venture has finance agreements in place which impose conditions on it making distributions in the form of dividends or loan repayments.

31. DEED OF CROSS GUARANTEE

The following consolidated statement of comprehensive income and retained profits, and the statement of financial position comprises the Corporation and its controlled entities which are party to the Deed of Cross Guarantee (refer note 22), after eliminating all transactions between parties to the Deed.

	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000
Consolidated statement of comprehensive income and retained profits		
Revenue	1,353,672	1,483,629
Expenses	1,675,478	1,242,382
(Loss)/profit before income tax equivalent expense	(321,806)	241,247
Income tax equivalent (benefit)/expense	(86,170)	55,218
(Loss)/profit for the period	(235,636)	186,029
Other comprehensive income	201,373	32,516
Total comprehensive (loss)/income for the period	(34,263)	218,545
Retained earnings at the beginning of the period	1,499,825	1,470,031
Dividends paid	(25,000)	(118,576)
Net (loss)/profit	(235,636)	186,029
Other movements	(157,043)	(37,659)
Retained earnings at the end of the period	1,082,146	1,499,825

31. DEED OF CROSS GUARANTEE (CONTINUED)

	CONSOLIDATED 2016 $'000	CONSOLIDATED 2015 $'000
Current assets		
Cash and cash equivalents	15,234	8,712
Receivables	380,068	250,151
Investments	61,303	11
Inventories	3,113	2,577
Other financial assets	237,272	134,091
Current tax asset	26,105	25,876
Other	9,295	15,060
Total current assets	732,390	436,478
Non-current assets		
Investments	184,410	184,410
Property plant and equipment	4,535,936	4,106,184
Other financial assets	384,312	425,516
Intangible assets	79,546	88,400
Goodwill	16,396	16,396
Other	50,956	32,874
Total non-current assets	5,251,556	4,853,780
TOTAL ASSETS	5,983,946	5,290,258
Current liabilities		
Payables	317,939	167,399
Interest-bearing liabilities	60,720	65,403
Provisions	93,364	78,771
Other financial liabilities	394,311	142,228
Other	166,213	133,077
Total current liabilities	1,032,547	586,878
Non-current liabilities		
Interest-bearing liabilities	849,380	789,612
Deferred tax liability	567,510	570,552
Provisions	462,021	401,704
Other financial liabilities	1,015,613	891,216
Total non-current liabilities	2,894,524	2,653,084
TOTAL LIABILITIES	3,927,071	3,239,962
NET ASSETS	2,056,875	2,050,296
EQUITY		
Contributed equity	628,206	558,206
Reserves	346,523	(7,735)
Retained earnings	1,082,146	1,499,825
TOTAL EQUITY	2,056,875	2,050,296

32. DIVIDEND

	CONSOLIDATED		PARENT	
	2016 $'000	2015 $'000	2016 $'000	2015 $'000
Declared and paid during the year				
Statutory dividend	118,576	116,058	118,576	116,058
Proposed for approval (not recognised as a liability as at 30 June)				
Statutory dividend	–	25,000	–	25,000

At the date of signing the annual report, the Board has declared that no dividend is payable in respect of the 2016 financial year.

33. SEGMENT INFORMATION

Identification of reportable segments

The Corporation has identified its material operating segments based on the internal reports that are reviewed and used by the Chief Executive Officer (CEO) as chief operating decision maker in assessing the performance and determining the allocation of resources. Three material segments have been identified as Hydro Tasmania, AETV and Momentum Energy.

Types of products and services by segment

(i) Hydro Tasmania

Hydro Tasmania generates and sells wholesale energy into the National Electricity Market from hydro generation assets and provides consulting services.

(ii) AETV

AETV Pty Ltd generates and sells wholesale energy into the National Electricity Market from gas fired generation assets and sells gas to wholesale customers in Tasmania.

(iii) Momentum Energy

Momentum Energy sells energy to retail customers in the Victorian, New South Wales, South Australian and Queensland regions of the National Electricity Market.

Basis of accounting for purposes of reporting by operating segments

Unless stated otherwise, all financial information reported to the CEO with respect to individual segments is determined in accordance with the accounting policies adopted in the financial statements as detailed in note 1.2.

Inter-segment revenues are eliminated on consolidation

33. SEGMENT INFORMATION (CONTINUED)

	YEAR ENDED 30 JUNE 2016					
	Hydro Tasmania $'000	AETV $'000	Momentum Energy $'000	Total segments $'000	Adjustments & eliminations $'000	Consolidated $'000
Revenue						
External customers	457,125	131,490	854,861	1,443,476	(107,613)	1,335,863
Fair value gains	196	10,390	–	10,586	–	10,586
Other revenue	21,409	70	353	21,832	(252)	21,580
Total revenue	478,730	141,950	855,214	1,475,894	(107,865)	1,368,029
Segment results						
Depreciation & amortisation	95,211	3,159	2,296	100,666	–	100,666
Finance expenses	57,141	–	1,078	58,219	–	58,219
Fair value losses	292,764	3,387	–	296,151	–	296,151
Net revaluation and impairment	(73,370)	37,864	–	(35,506)	(23,191)	(58,697)
Share of joint venture	102	–	–	102	–	102
Other expense	399,050	157,079	815,627	1,371,756	(107,865)	1,263,891
Total expense	770,898	201,489	819,001	1,791,388	(131,056)	1,660,332
Profit/(loss) before income tax equivalent expense	(292,168)	(59,539)	36,213	(315,494)	23,191	(292,303)
Comprising:						
Result before fair value movements and revaluation	(72,970)	(28,678)	36,213	(65,435)	–	(65,435)
Net fair value gains/(losses)	(292,568)	7,003	–	(285,565)	–	(285,565)
Revaluation and impairment (expenses)/gains	73,370	(37,864)	–	35,506	23,191	58,697
Profit/(loss) before income tax equivalent expense	(292,168)	(59,539)	36,213	(315,494)	23,191	(292,303)
Income tax equivalent expense	(80,416)	(17,820)	10,953	(87,283)	–	(87,283)
Segment profit/(loss) after tax	(211,752)	(41,719)	25,260	(228,211)	23,191	(205,020)
Total assets	5,725,715	102,140	164,063	5,991,918	(105,432)	5,886,486
Total liabilities	3,829,597	373,363	75,834	4,278,794	(488,015)	3,790,779
Other disclosures						
Investment in joint venture	63,804	–	–	63,804	–	63,804
Capital expenditure	106,205	–	2,873	109,078	–	109,078

Inter-segment revenues are eliminated on consolidation.

33. SEGMENT INFORMATION (CONTINUED)

	YEAR ENDED 30 JUNE 2015					
	Hydro Tasmania	AETV	Momentum Energy	Total segments	Adjustments & eliminations	Consolidated
	$'000	$'000	$'000	$'000	$'000	$'000
Revenue						
External customers	588,321	49,767	900,872	1,538,960	(71,799)	1,467,161
Share of joint venture	1,773	–	–	1,773	–	1,773
Other revenue	19,594	–	–	19,594	(4,305)	15,289
Total revenue	609,688	49,767	900,872	1,560,327	(76,104)	1,484,223
Segment results						
Depreciation & amortisation	88,088	3,882	948	92,918	–	92,918
Finance expenses	71,927	5,988	–	77,915	(5,988)	71,927
Net fair value movement	109,449	(6,522)	–	102,927	–	102,927
Net revaluation and impairment	(197,442)	17,344	–	(180,098)	(51,968)	(232,066)
Other expense	382,504	81,796	862,842	1,327,142	(70,116)	1,257,026
Total expense	454,526	102,488	863,790	1,420,804	(128,072)	1,292,732
Profit/(loss) before income tax equivalent expense	155,162	(52,721)	37,082	139,523	51,968	191,491
Comprising:						
Result before fair value movements and revaluation	67,169	(41,899)	37,082	62,352	–	62,352
Net fair value gains/(losses)	(109,449)	6,522	–	(102,927)	–	(102,927)
Revaluation and impairment (expenses)/ gains	197,442	(17,344)	–	180,098	51,968	232,066
Profit/(loss) before income tax equivalent expense	155,162	(52,721)	37,082	139,523	51,968	191,491
Income tax equivalent expense	67,425	(15,816)	14,602	66,211	11,395	54,816
Segment profit/(loss) after tax	87,737	(36,905)	22,480	73,312	63,363	136,675
Total assets	5,037,959	198,331	165,070	5,401,360	(203,827)	5,197,533
Total liabilities	2,988,193	427,834	102,101	3,518,128	(374,950)	3,143,178
Other disclosures						
Investment in joint venture	68,556	–	–	68,556	–	68,556
Capital expenditure	96,125	–	4,573	100,698	–	100,698

33. SEGMENT INFORMATION (CONTINUED)

	YEAR ENDED	
	2016 $'000	2015 $'000
Reconciliation of profit		
Segment profit	(228,211)	73,312
Energy sales	107,613	71,799
Purchased energy	(107,865)	(71,799)
Other income	252	5,988
Interest expense	–	(5,988)
Intercompany loan impairment	23,191	51,968
Income tax	–	11,395
Consolidated profit	(205,020)	136,675
Reconciliation of assets		
Segment total assets	5,991,918	5,401,360
Elimination of investment in subsidiary	(105,432)	(203,827)
Corporation total assets	5,886,486	5,197,533
Reconciliation of liabilities		
Segment total liabilities	4,278,794	3,518,128
Elimination of intercompany revaluation and balances	(488,015)	(374,950)
Corporation total liabilities	3,790,779	3,143,178

Superannuation declaration

I, Stephen Davy, hereby certify that the Hydro-Electric Corporation has met its obligations under the Commonwealth's *Superannuation Guarantee (Administration) Act 1992* in respect of any employee who is a member of a complying superannuation scheme to which the Hydro-Electric Corporation contributes.

S Davy
Chief Executive Officer
11 August 2016

Statement of certification

In the opinion of the directors of the Hydro-Electric Corporation (the "Corporation"):

a) the financial statements and notes of the Corporation and of the consolidated entity are in accordance with the Government *Business Enterprises Act 1995*, including:

   (i) giving a true and fair view of the results and cash flows for the year ended 30 June 2016 and the financial position at 30 June 2016 of the Corporation and its subsidiaries;

   (ii) complying with the Australian Accounting Standards and Interpretations, and with the Treasurer's instructions.

b) there are reasonable grounds to believe that the Corporation will be able to pay its debts as and when they fall due.

c) there are reasonable grounds to believe that the Corporation, AETV Pty Ltd and Momentum Energy Pty Ltd will be able to meet any obligations or liabilities to which they are or may become subject to by virtue of the Deed of Cross Guarantee between those entities pursuant to ASIC Instrument [15-0576] and [15-0577].

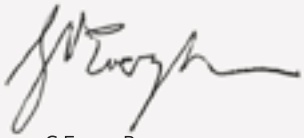
This declaration has been made after receiving the following declaration from the Chief Executive Officer and Chief Financial Officer of the Corporation:

a) the financial records of the Corporation for the year ended 30 June 2016 have been properly maintained in accordance with Section 51 of the *Government Business Enterprises Act 1995*;

b) the financial statements and notes for the year ended 30 June 2016 have been prepared in accordance with Section 52 of the *Government Business Enterprises Act 1995*; and

c) the financial statements and notes for the year ended 30 June 2016 give a true and fair view.

Signed in accordance with a resolution of the directors:



G Every-Burns
Chairman
11 August 2016

S Hogg
Director
11 August 2016

Auditor's independence declaration

Tasmanian Audit Office

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11 August 2016

The Board of Directors
Hydro-Electric Corporation
4 Elizabeth Street
HOBART TAS 7000

Dear Board Members

Auditor's Independence Declaration

In relation to my audit of the financial report of Hydro Electric Corporation for the financial year ended 30 June 2016, I declare that to the best of my knowledge and belief, there have been no contraventions of:

(a) the auditor independence requirements of Australian Auditing Standards in relation to the audit

(b) any applicable code of professional conduct in relation to the audit.

As agreed with the Audit Committee, ac copy of this declaration must be included in the Annual report.

Yours sincerely

E R De Santi
Acting Auditor-General

Independent audit report

Tasmanian Audit Office

Independent Auditor's Report

To Members of the Tasmanian Parliament

Hydro-Electric Corporation

Consolidated Financial Report for the Year Ended 30 June 2016

Report on the Financial Report

I have audited the accompanying consolidated financial report (the financial report) of the Hydro-Electric Corporation (the Corporation), which comprises the balance sheet as at 30 June 2016 and the income statement, statement of comprehensive income, cash flow statement and statement of changes in equity for the year ended on that date, a summary of significant accounting policies, other explanatory notes and the certification statement by the Directors on the financial report on the consolidated entity comprising the Corporation and the entities it controlled at the year's end or from time to time during the financial year.

Auditor's Opinion

In my opinion the:

(a) Corporation's financial report:

(i) presents fairly, in all material respects, the consolidated entity's financial position as at 30 June 2016, and its financial performance, cash flows and changes in equity for the year then ended; and

(ii) is in accordance with the *Government Business Enterprises Act 1995* and Australian Accounting Standards

(b) financial report also complies with International Financial Reporting Standards as disclosed in Note 1.2(b).

The Responsibility of the Directors for the Financial Report

The Directors of the Corporation are responsible for the preparation and fair presentation of the financial report in accordance with Australian Accounting Standards and Section 52 (1) of the *Government Business Enterprises Act 1995*. This responsibility includes establishing and maintaining internal controls relevant to the preparation and fair presentation of the financial report that is free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances. In Note 1.2(b), the Directors also state, in accordance with Australian Accounting Standard AASB 101 *Presentation of Financial Statements*, that the financial report complies with International Financial Reporting Standards.

Auditor's Responsibility

My responsibility is to express an opinion on the financial report based upon my audit. My audit was conducted in accordance with Australian Auditing Standards. These Auditing Standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance as to whether the financial report is free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on my judgement, including the assessment of risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, I considered internal control relevant to the Directors' preparation and fair presentation of the financial report in order to design audit procedures that are appropriate to the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial report.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Independence

In conducting this audit, I have complied with the independence requirements of Australian Auditing Standards and other relevant ethical requirements.

The *Audit Act 2008* promotes the independence of the Auditor-General. The Auditor-General is the auditor of all Tasmanian public sector entities and can only is removed by Parliament. The Auditor-General may conduct an audit in any way considered appropriate and is not subject to direction by any person about the way in which audit powers are to be exercised. The Auditor-General has for the purposes of conducting an audit, access to all documents and property and can report to Parliament matters which in the Auditor-General's opinion are significant.

My independence declaration was provided to the Directors on the same date as this auditor's report and is included in the Annual Report.

Tasmanian Audit Office

E R De Santi
Acting Auditor-General

Hobart
11 August 2016

Independent limited assurance report

KPMG

Independent Limited Assurance Report to the Directors of the Hydro-Electric Corporation

Qualified Conclusion

Based on the evidence we obtained from the procedures performed, except for the possible effects of the matters described in the Basis for Qualified Conclusion paragraph, we are not aware of any material misstatements in the Selected GRI Indicators identified below, which have been prepared in accordance with the GRI G4 Sector Disclosures for Electric Utilities for the year ended 30 June 2016.

Basis for Qualified Conclusion

The indicators presented in Tables 16 and 17 on pages 45 and 46 of the Annual Report have not been prepared in accordance with the GRI reporting requirements of G4-LA6 *Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work related fatalities by region and gender*. The information provided differs from the GRI's in the following ways:

- The reporting of injury and disease rates by region and gender is reported as the number of occurrences rather than the calculated frequency rate.
- The use of an alternate methodology to calculate the presented lost time injury frequency table as outlined in footnotes 'b' and 'c' to table 16.
- The non-inclusion of the absentee rate for external contractors as outlined in the explanatory notes to Table 17.

Information subject to assurance

We have undertaken a limited assurance engagement in relation to selected Electric Utilities Global Reporting Initiative (GRI) indicators (the Selected GRI indicators) as presented in the Hydro-Electric Corporation's (the Company's) Annual Report for the year ended 30 June 2016. Our procedures have been limited to reporting on the following selected GRI indicators that have been identified by Management:

Indicator		Report reference
G4-10	Workforce reporting.	Page 119
G4-24	Provide a list of stakeholder groups engaged by the organisation.	Page 41
G4-EC9	Proportion of spending on local suppliers at significant locations of operations.	Page 41
G4-EN8	Total water withdrawal by source.	Page 33
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities, by region and gender.	Page 45, 46
G4-56	Describe the organisations values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics.	Page 4
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.	Page 27
G4-EU30	Average plant availability factor by energy source and by regulatory regime.	Page 33

Criteria used as the basis of reporting

The Selected indicators have been prepared in accordance with the G4 Sector Disclosures for Electric Utilities *("the criteria"),* published by the Global Reporting Initiative.

KPMG

Basis for conclusion

We conducted our work in accordance with Australian Standard on Assurance Engagements ASAE 3000 (Standard). In accordance with the Standard we have:

- used our professional judgement to plan and perform the engagement to obtain limited assurance that the selected GRI indicators are free from material misstatement, whether due to fraud or error;
- considered relevant internal controls when designing our assurance procedures, however we do not express a conclusion on their effectiveness; and
- ensured that the engagement team possess the appropriate knowledge, skills and professional competencies.

Summary of procedures performed

Our limited assurance conclusion is based on the evidence obtained from performing the following procedures:

- enquiries with relevant personnel from the Company to understand the internal controls, governance structure and reporting process of the selected GRI indicators;
- Comparison of information presented in the Annual Report to corresponding information in the relevant underlying sources to determine whether all the relevant information contained in such underlying sources has been included in the report.
- Reading the information presented in the Annual Report to determine whether it is in line with our overall knowledge of, and experience with, the performance of the Company in the relevant areas.

How the Standard defines limited assurance and material misstatement

The procedures performed in a limited assurance engagement vary in nature and timing, and are less in extent than for a reasonable assurance engagement. Consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Misstatements, including omissions, within the selected GRI indicators are considered material if, individually or in the aggregate, they could reasonably be expected to influence relevant decisions of the Directors of the Company.

Use of this Assurance Report

This report has been prepared for the Directors of the Hydro-Electric Corporation for the purpose of providing an assurance conclusion on the selected GRI indicators and may not be suitable for another purpose. We disclaim any assumption of responsibility for any reliance on this report, to any person other than the Directors of the Hydro-Electric Corporation, or for any other purpose than that for which it was prepared.

Directors' responsibility

The Directors are responsible for:

- determining that the criteria is appropriate to meet their needs;
- preparing and presenting the selected GRI indicators in accordance with the criteria; and
- establishing internal controls that enable the preparation and presentation of the selected GRI indicators that is free from material misstatement, whether due to fraud or error.

Our responsibility

Our responsibility is to perform a limited assurance engagement in relation to the selected GRI indicators for the year ended 30 June 2016, and to issue a limited assurance report that includes our conclusion.

Our independence and quality control

We have complied with our independence and other relevant ethical requirements of the *Code of Ethics for Professional Accountants* issued by the Australian Professional and Ethical Standards Board, and complied with the applicable requirements of Australian Standard on Quality Control 1 to maintain a comprehensive system of quality control.

KPMG

KPMG
Hobart
30 September 2016

Statistical summaries

Generation summary

Table 18: Generation summary, 2012–2016[a]

As at June 30		2012	2013	2014	2015	2016
Mainland Tasmania						
Power stations						
Hydro	No.	30[b]	30	30	30	30
Thermal (gas)	No.	0	1[c]	1	1	1
Thermal (diesel)	No.	0	0	0	0	2[d]
Wind	No.	0[e]	0[f]	0	0	0
Total	**No.**	**30**	**31**	**31**	**31**	**33**
Installed capacity[g]						
Hydro	MW	2 281	2 281	2 281	2 281	2 281
Thermal (gas)	MW	0	372	372	372	372
Thermal (diesel)	MW	0	0	0	0	123
Wind	MW	0	0	0	0	0
Total	**MW**	**2 281**	**2 653**	**2 653**	**2 653**	**2 776**
Energy generated[h]						
Hydro	GWh	8 334	10 627	11 932	8 176	8 038
Thermal (gas)	GWh	0	140[i]	866	4	769
Thermal (diesel)	GWh	0	0	0	0	55
Wind	GWh	313[j]	0	0	0	0
Total	**GWh**	**8 647**	**10 767**	**12 798**	**8 180**	**8 862**
Generation peak	MW	2 042	2 222	2 168	2 187	2 161
Generation load factor[k]	%	48	55	67	43	47
Bass Strait islands						
King Island diesel	MWh	11 635	7 968	7 220	7 430	**6 587**
King Island wind	MWh	4 830	4 133	4 974	4 144	**4 907[l]**
Flinders Island diesel	MWh	4 123	3 569	3 734	3 536	**3 539**
Total Bass Strait islands	**MWh**	**20 588**	**15 670**	**15 928**	**15 110**	**15 033**

Notes:

[a] Data relates to GRI indicators EU1 and EU2

[b] The number of power stations differs from the number in the Statement of Corporate Intent as this table includes power stations additional to the main undertakings, being Parangana, Nieterana (Butlers Gorge mini-hydro) and Lower Lake Margaret

[c] Tamar Valley Power Station was transferred to Hydro Tasmania on 1 June 2013

[d] Temporary diesel generation of up to a maximum registered capacity of 236 MW was installed at six sites during the latter part of 2015–16. As at 30 June 2016 diesel generation was still installed at Bell Bay Power Station and Que River Substation

[e] Woolnorth Bluff Point Wind Farm and Woolnorth Studland Bay Wind Farm were transferred from Hydro Tasmania in February 2012

[f] Musselroe Wind Farm was transferred from Hydro Tasmania on 5 February 2013 before operational production commenced

[g] Power Station registered capacity

[h] Mainland Tasmania energy generated is calculated as the net energy measured at the market and distribution connection points

[i] Tamar Valley Power Station energy generated for the month of June 2013

[j] Wind energy generation is from 1 July 2011 to 27 February 2012, prior to transfer of the wind farms

[k] Calculated as average MW divided by peak MW. Average MW calculated from total energy divided by hours in the year

[l] King Island generation is calculated as the net wind output for the year

Financial statistical summary[a]

Table 19: Financial statistics, 2012–2016, year ending 30 June

Five-year profile—Statement of Comprehensive Income

	2012 $'000s	2013 $'000s	2014 $'000s	2015 $'000s	2016 $'000s
Income					
Sales of goods and services	1 039 693	1 541 617	1 978 012	1 467 161	1 335 863
Other income	11 438	13 616	15 125	17 062	21 580
TOTAL INCOME	**1 051 131**	**1 555 233**	**1 993 137**	**1 484 223**	**1 357 443**
Less Expenses					
Labour	104 802	123 242	149 941	126 060	124 821
Direct operating expenses	590 001	960 782	1 319 456	1 034 271	1 022 785
Depreciation and amortisation of non-current assets	82 273	91 373	88 230	92 918	100 666
Impairment of non-current assets	–	484 315	220 492	(232 066)	(58 697)
Finance costs	86 687	67 501	79 840	71 927	58 219
Fair value movements	85 571	1923	(162 110)	102 927	285 565
Other operating expenses	83 928	82 074	114 557	96 695	116 387
TOTAL EXPENSES	**1 033 262**	**1 811 210**	**1 810 406**	**1 292 732**	**1 649 746**
NET PROFIT/(LOSS) BEFORE TAX	**17 869**	**(255 977)**	**182 731**	**191 491**	**(292 303)**

Five-year profile—Balance Sheet

	2012 $'000s	2013 $'000s	2014 $'000s	2015 $'000s	2016 $'000s
Assets					
Cash and cash equivalents	7061	39 806	13 012	15 694	82 698
Investments	34 557	66 696	68 939	68 556	63 804
Receivables	142 062	220 828	241 086	250 476	380 872
Property, plant and equipment	4 484 569	4 188 436	3 969 795	4 208 087	4 628 625
Financial and other assets	1 137 587	613 592	731 972	654 720	730 487
TOTAL ASSETS	**5 805 836**	**5 129 358**	**5 024 804**	**5 197 533**	**5 886 486**
Liabilities					
Payables	124 700	142 732	176 073	164 283	315 839
Provisions	467 247	551 369	559 090	501 707	579 499
Interest-bearing liabilities	856 806	905 795	864 003	855 015	910 100
Tax liabilities	801 713	621 103	555 087	569 678	564 199
Financial liabilities	1 423 323	1 119 204	1 066 047	1 052 495	1 421 142
TOTAL LIABILITIES	**3 673 789**	**3 340 203**	**3 220 300**	**3 143 178**	**3 790 779**
NET ASSETS	**2 132 047**	**1 789 155**	**1 804 504**	**2 054 355**	**2 095 707**
EQUITY	**2 132 047**	**1 789 155**	**1 804 504**	**2 054 355**	**2 095 707**

Five-year profile—Capital Works

	2012 $'000s	2013 $'000s	2014 $'000s	2015 $'000s	2016 $'000s
Expenditure					
Generation assets	147 310	85 732	71 034	73 182	77 029
Bass Strait islands	6389	1828	1164	1461	1676
Land and buildings	956	1286	686	624	2110
Fleet	2159	2887	3646	3905	1818
Information systems	20 617	57 047	36 329	20 811	17 619
Renewable developments	3584	8654	412	334	7680
Other assets	5120	6604	5426	381	1146
TOTAL CAPITAL EXPENDITURE	**186 135**	**164 038**	**118 697**	**100 698**	**109 078**

[a] Data contained in this table relates to GRI indicator EC1

Procurement summary

Table 20: Consultancies valued at more than $50 000 (ex GST), 2015–16

Name of consultant	Location	Description	Period of engagement	Total paid 2015–16
Clayton Utz	Sydney, NSW	Legal Advisors	1 July 2015 to 30 June 2016	$999 671
Page Seager	Hobart, TAS	Legal Advisors	1 July 2015 to 30 June 2016	$879 539
Pitt & Sherry (Operations) Pty Ltd	Launceston and Hobart, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$720 595
DamWatch Engineering Ltd	Wellington, New Zealand	Engineering Consultants	1 July 2015 to 30 June 2016	$435 772
Ernst & Young	Sydney, NSW	Financial Consultants	1 July 2015 to 30 June 2016	$383 767
GHD Pty Ltd	Hobart, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$356 010
K&L Gates	Melbourne, VIC	Legal Advisors	1 July 2015 to 30 June 2016	$329 059
Parsons Brinckerhoff	Newcastle upon Tyne, UK	Engineering Consultants	1 July 2015 to 30 June 2016	$325 691
KPMG	Melbourne, VIC	Financial Consultants	1 July 2015 to 30 June 2016	$321 632
Celsius Graphic Design	Collingwood, VIC	Marketing Consultants	1 July 2015 to 30 June 2016	$287 482
Capgemini Australia Pty Ltd	Sydney, NSW	Information Technology Consultants	1 July 2015 to 30 June 2016	$277 131
Pitcher Partners Consulting	Melbourne, VIC	Financial Consultants	1 July 2015 to 30 June 2016	$253 989
Howarth Fisher and Associates Pty Ltd	Sandy Bay, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$245 331
Johnstone McGee & Gandy Pty Ltd	Hobart, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$209 150
KPMG Financial Advisory Services (Australia) Pty Ltd	Melbourne, VIC	Financial Consultants	1 July 2015 to 30 June 2016	$206 871
Mark G Jackson Consulting	East Launceston, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$184 560
Tomten Consulting	Hobart, TAS	Strategic Advisory Services	1 July 2015 to 30 June 2016	$178 240
SICC Services	Devonport, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$163 036
Woodland Management Pty Ltd	Prospect Vale, TAS	Environmental Consultants	1 July 2015 to 30 June 2016	$157 517
Price Waterhouse Coopers	Melbourne, VIC	Financial Consultants	1 July 2015 to 30 June 2016	$146 325
Herbert Smith Freehills	Melbourne, VIC	Legal Advisors	1 July 2015 to 30 June 2016	$137 590
AECOM Services Pty Ltd	Melbourne, VIC	Engineering Consultants	1 July 2015 to 30 June 2016	$111 143
SEMF Pty Ltd	Hobart, TAS	Engineering Consultants	1 July 2015 to 30 June 2016	$110 228
Simon Krohn Consulting Pty Ltd	Hobart, TAS	Strategic Advisory Services	1 July 2015 to 30 June 2016	$106 890
White Legal Pty Ltd	Brisbane, QLD	Legal Advisors	1 July 2015 to 30 June 2016	$101 306
Vipac Engineers and Scientists Ltd	Launceston, TAS	Environmental Consultants	1 July 2015 to 30 June 2016	$99 536
Gondwana Heritage Solutions	Oatlands, TAS	Environmental Consultants	1 July 2015 to 30 June 2016	$97 312
Deloitte Growth Solutions Pty Ltd	Hobart, TAS	Financial Consultants	1 July 2015 to 30 June 2016	$89 395
Ground Proof Mapping Pty Ltd	Launceston, TAS	Environmental Consultants	1 July 2015 to 30 June 2016	$84 000
Ibis Business Solutions Pty Ltd	Melbourne, VIC	Health and Safety Consultants	1 March 2016 to 30 June 2016	$72 992
Vinsi Partners	Hamilton, NSW	Engineering Consultants	1 Aug2015 to 31 Jan2016	$72 285
E3 International Pty Ltd	Surfers Paradise, QLD	Strategic Advisory Services	1 July 2015 to 30 June 2016	$68 730
Mercer Consulting (Aust) Pty Ltd	Melbourne, VIC	Strategic Advisory Services	1 July 2015 to 30 June 2016	$67 500
Jarosite Consulting Pty Ltd	Bells Beach, VIC	Strategic Advisory Services	1 July 2015 to 30 June 2016	$58 000
Deloitte Private	Hobart, TAS	Financial Consultants	1 July 2015 to 30 June 2016	$55 922
ESS Earth Sciences	Richmond, VIC	Engineering Consultants	1 July 2015 to 30 June 2016	$55 909
Norton Rose Fulbright	Melbourne, VIC	Legal Advisors	1 July 2015 to 30 June 2016	$50 860
Total				$8 500 963
Total expenditure on 233 other consultants engaged for $50 000 or less				$2 667 294
Total payments to consultants				**$11 168 257**

Note: In addition to the consultants listed in the table above, Entura engages consultants for specialist advice in delivering services to external clients, Hydro Tasmania engaged two consultants on a confidential basis for specialist advice to the value of $193 992

Payment of accounts summary

Table 21: Accounts due or paid within each year—Hydro Tasmania and subsidiary companies

Measure	
Creditor days: 1698 creditors with the following payment terms:	
7 days	234
14 days	236
21 days	9
30 days	1219
Total number of accounts due for payment	25 617
Number of accounts paid on time[a]	20 487
Amount due for payment	$229 948 282
Amount paid on time	$179 946 152
Number of payments for interest on overdue accounts	1
Interest paid on overdue accounts	$320

[a] Reasons for delays include an increase in identification of disputed invoices and ongoing need for business-wide education of the payment process. Actions taken to improve performance include:

- renegotiation of payment terms with suppliers
- upgrade of invoice system to improve automated processing
- additional reporting developed for more timely invoice management

Workforce summary

Table 22: Employees by employment type and gender[a]

	Male	Female	Total
Permanent	658	302	**960**
Fixed term	64	23	**87**
Casual	14	4	**18**
Total	**736**	**329**	**1065**

[a] KPMG has assured this data

Table 23: Permanent employees by employment type and gender[a]

	Male	Female	Total
Full time	704	238	942
Part time	18	87	105
Total	**722**	**325**	**1047**

[a] KPMG has assured this data

Table 24: Employees and supervised workers by gender[a]

	Male	Female	Total
Employee	736	329	1065
Contractor[b]	125	33	158
Total	**861**	**362**	**1223**

[a] KPMG has assured this data

[b] The business employs external contractors to fulfil short-term and specific project requirements and there is no distinction between self-employed contractors or contractors employed by a third party. On 1 July 2016, the business had employed 158 external contractors. Of the total workforce including non-employees, this represents 12.9% classified as external contractors. We are currently unable to report on hours worked by external contractors

Table 25: Workforce by location and gender[a]

	Male	Female	Total
Tasmania	551	169	720
Other states	163	155	318
Overseas	22	5	27
Total	**736**	**329**	**1065**

[a] KPMG has assured this data

Social labour practices and decent work employment

Table 26: New employee hires, terminations and employee turnover[a]

	Hire		Termination	
	Male	Female	Male	Female
Tasmania	56	28	53	21
Other states	47	29	63	28
Overseas	3	2	4	1
	106	**59**	**120**	**50**
New hire turnover	**14.6%**			
Overall turnover	**16%**			

[a] Data relates to GRI indicator LA1

Table 27: Percentage of employees eligible to retire in the next five or ten years by job category and region[a]

Retire categories	Currently eligible	Within next 5 years	Between next 5 and 10 years	> 10 years
Board of directors		**0.1%**	**0.2%**	**0.2%**
Tasmania		0.1%	0.2%	0.2%
Senior executive	**0.4%**	**0.3%**	**1.5%**	**14.9%**
Tasmania	0.4%	0.3%	1.4%	12.8%
Other states			0.1%	2.0%
Overseas				0.2%
HT agreement	**0.1%**	**1.4%**	**2.1%**	**37.8%**
Tasmania	0.1%	1.4%	2.1%	33.4%
Other states				4.4%
Entura agreement	**0.4%**	**0.8%**	**0.7%**	**11.6%**
Tasmania	0.4%	0.8%	0.6%	9.5%
Other states			0.1%	2.2%
Individual agreement	**0.1%**	**0.7%**	**1.0%**	**23.5%**
Tasmania	0.1%	0.1%	0.5%	3.5%
Other states		0.6%	0.6%	20.0%
International			**0.5%**	**1.9%**
Overseas			0.5%	1.9%
Grand total	**0.9%**	**3.2%**	**5.9%**	**90.0%**

[a] Data relates to GRI indicator EU15

Table 28: Forecast key performance indicators[a]

Key performance indicators (KPIs)	2015–16	2016–17	2017–18	2018–19
Financial indicators				
Results before fair value movements and revaluations	$31m	$50m	$50m	$80m
Capital expenditure	Capital expenditure to be at or below budget Satisfactory external validation of the 10-year Asset Management Plan			
Return on equity[b]	0.68%	1.68%	1.67%	2.68%
Cost savings target	Non-customer-facing OPEX less than $148m	Non-customer-facing OPEX to increase at less than CPI		
Retail profit before tax	Profit before tax >= budget	Profit before tax greater than previous year		
Non-financial indicators				
Lost-time injury	0			
Employee engagement score	Maintain engagement scores in the top quartile of the national benchmark			
Hydro generation availability	Availability target of 80% achieved			
Regulatory compliance obligations	Zero breaches resulting in enforced regulatory undertakings or penalties			
Returns to government (cash)				
Ordinary dividend[c]	$25m	$19m	$31m	$31m
Total other returns to government	$17m	$20m	$31m	$25m
Total returns to government	**$42m**	**$39m**	**$62m**	**$56m**

[a] Forecast performance indicators are subject to change each year as part of our corporate plan. The 2016–17 Statement of Corporate Intent will be published on our website

[b] This calculation reflects Net Profit after Tax divided by Total Equity

[c] Represents the dividend paid in the period, relating to performance in the previous period

Abbreviations and glossary

AETV	AETV is a wholly owned subsidiary that Hydro Tasmania uses to conduct gas-fired generation and gas supply arrangements
ARENA	Australian Renewable Energy Agency
Basslink	An undersea high-voltage direct-current cable carrying electricity between Tasmania and Victoria
Carbon emissions intensity	Carbon emissions per unit of energy generated. Measured in tonnes of carbon dioxide equivalent per megawatt hour (tCO_2e/MWhr)
Cavitation	The formation of vapour cavities in a liquid, the presence of which may negatively affect hydropower turbines
CCGT	Combined cycle gas turbine
CEO	Chief executive officer
Churn	Customer turnover
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSO	Community service obligation
CO_2e	Carbon dioxide equivalent. Unit to measure greenhouse gas emissions, other than CO_2, based on their global warming potential relative to CO_2
Disruptive technologies	New technologies that displace existing technology and dramatically change existing markets and industries. For example, personal computers were a disruptive technology that completely changed the way we work
DMA	Disclosures on management approaches, which relate to our sustainability reporting
DPIPWE	Department of Primary Industries, Parks, Water and Environment
Dry lay-up	Dry lay-up is a process which removes humid corrosive conditions from a gas turbine, allowing it to be shut down for long periods of time
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
EPA	Environment Protection Authority (Tasmania)
FAI	An injury requiring first aid treatment
Flinders Hub Project	Flinders Island Hybrid Energy Hub project is an off-grid hybrid energy system being developed on Flinders Island that will integrate wind and solar generation with the existing diesel power station, with installation of enabling technology, such as flywheel and battery energy storage, in a new form to reduce costs
FTE	Full-time equivalent
GBE Act	Tasmanian *Government Business Enterprises Act 1995*
GJ	gigajoules
GRI	Global Reporting Initiative
Hybrid off-grid solution	An autonomous electricity supply system that relies on one or more energy sources usually in conjunction with a battery and power conditioning equipment. Although the systems can provide a reliable and cost-effective source of power in remote regions, they are not limited to remote areas
IFS	Inland Fisheries Service
INT	Injuries no treatment
KIREIP	King Island Renewable Energy Integration Project
KPI	Key performance indicator
kVA	kVA is kilo-volt-ampere, commonly used as a unit of power in obtaining the electrical capacity of circuit breakers, uninterrupted power supplies and wirings
LGC	Large-scale Generation Certificate. Accredited renewable energy power stations are entitled to create LGCs based on the amount of eligible renewable electricity they produce above their baseline. As a guide, one LGC is equal to one megawatt hour of eligible renewable electricity. Once created and validated, LGCs act as a form of currency and can be sold and transferred to other individuals and businesses at a negotiated price. LGCs are usually sold to liable entities (electricity retailers), who are required to surrender a set number of certificates to the Clean Energy Regulator each year
LTI	Lost-time injuries—see page 45 for definition
MAST	Marine and Safety Tasmania
MTI	Medical treatment injury—see page 45 for definition
NEM	National Electricity Market or NEM refers to the Australian wholesale electricity market that covers the electrically connected states and territories of eastern and southern Australia

Abbreviations and glossary (continued)

NPS	Net promoter score, a customer loyalty metric. A positive score is considered good. A score over 50 is considered excellent
OPEX	Operational expenditure
PCB	Polychlorinated biphenyl
RET	Renewable energy target
SAIDI	The average outage duration for each customer served
SAIFI	The System Average Interruption Frequency Index is commonly used as a reliability indicator by electric power utilities
SRI	Safety reporting index—see page 45 for definition
TEIS	Total energy in storage
TVPS	Tamar Valley Power Station
WSAC	Water Storage Advisory Committee

Measuring water storage levels

Hydro Tasmania publishes water storage data in two ways: 'energy in storage', and 'lake levels'.

Lake levels are reported as metres below full and are a measure of the level of the lake relative to its full supply level.

Energy in storage is the amount of electricity that could be generated from the water stored in a lake. Storage levels are described as 'x per cent full in energy terms' or 'per cent full of energy' or 'gigawatt hours'. The figure is not the same as the level of water in the storage. Energy in storage can be reported for the system as a whole or for individual lakes.

The preferred operating minimum level forms part of our obligation to prudently manage our water storages, and is a seasonal level of energy in storage for the system as a whole. We aim to keep above this level under median inflows.

Economic Operating Levels are seasonal lake level targets that ensure a reasonable balance between risk of spill and risk of energy shortfall.

Icy conditions on Shannon Lagoon

Terms of energy measurement

kW – kilowatt	One kW = 1000 watts. A watt is the rate at which electrical energy is produced or used
MW – megawatt	One MW = 1000 kilowatts or one million watts
kWh – kilowatt hour	The standard unit of energy, equivalent to production or consumption at the rate of one kilowatt for one hour
MWh – megawatt hour	One MWh = 1000 kilowatt hours
GW – gigawatt	One GW = 1000 megawatts or one million kilowatts
GWh – gigawatt hour	One GWh = 1 million kilowatt hours, or 1000 megawatt hours
TW – terawatt	One TW = 1000 gigawatts or one million megawatts
TWh – terawatt hour	One TWh = 1000 gigawatt-hours, or one million megawatt hours
kV – kilovolt	One kV = 1000 volts. A volt is the unit of potential or electrical pressure

Global Reporting Index

How to use this index

This index refers to the Global Reporting Initiative (GRI) indicators on which Hydro Tasmania reports. We report using the fourth edition of the GRI indicators, and have adopted an 'in accordance' core level of reporting. For more information, see www.globalreporting.org/Pages/default.aspx

In addition to the standard suite of GRI indicators, we have also applied the sector supplement indicators that are most relevant. The EU code denotes an indicator specific to electricity utilities.

Our disclosures on management approaches (DMA) are typically discussed at www.hydro.com.au/about-us/governance/management-approaches.

General standard disclosures

G4 – 1, CEO/Chairman statement on sustainability strategy and performance, 11

G4 – 3, Name of the organisation, 7

G4 – 4, The primary brands, products and services, 7

G4 – 5, The location of the organisation's headquarters, inside back cover

G4 – 6, Number and names of countries where either the organisation has significant operations or that are relevant to sustainability topics covered in the report, 8

G4 – 7, The nature of ownership and legal form of the organisation, 7

G4 – 8, Report the markets served, 8

G4 – 9, Report the scale of the organisation, 8

G4 – 10, Workforce reporting, 119

G4 – 11, Percentage of total employees covered by collective bargaining agreements, 46

G4 – 12, Describe the organisation's supply chain, www.hydro.com.au/about-us/supply-chain

G4 – 13, Changes during the reporting period regarding the organisation's size, structure, ownership, or its supply chain, 7

G4 – 14, Report whether and how the precautionary approach or principle is addressed by the organisation, www.hydro.com.au/about-us/governance

G4 – 15, List externally developed economic, environmental and social charters, principles, or other initiatives to which the organisation subscribes or which it endorses, www.hydro.com.au/about-us/governance

G4 – 16, List memberships of associations (such as industry associations) and national or international advocacy organisations in which the organisation belongs, www.hydro.com.au/about-us/governance

EU1, Installed capacity, broken down by primary energy source and by regulatory regime, 116

EU2, Net energy output broken down by primary energy source and by regulatory regime, 116

EU3, Number of residential, industrial, institutional and commercial customer accounts, 27

EU4, Length of above and underground transmission and distribution lines by regulatory regime, 33

Plant decommissioning

G4 – DMA, Plant decommissioning—nuclear power sites, not applicable

EU5, Allocation of CO_2e emissions allowances or equivalent, broken down by carbon trading framework, not applicable

G4 – 17, Entities included in the organisation's consolidated financial statements, 53

G4 – 18, Explain the process for defining the report content and the aspect boundaries. Explain how the organisation has implemented the reporting principles for defining report content, 4

G4 – 19, List all the material aspects identified in the process for defining report content, 5

G4 – 20, For each material aspect, report the aspect boundary within the organisation, see discussion of material aspects

G4 – 21, For each material aspect, report the aspect boundary outside the organisation, see discussion of material aspects

G4 – 22, Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements, not applicable

G4 – 23, Report significant changes from previous reporting periods in the scope and aspect boundaries, 7

G4 – 24, Provide a list of stakeholder groups engaged by the organisation, 41

G4 – 24, Report the basis for identification and selection of stakeholders with whom to engage, www.hydro.com.au/about-us/governance

G4 – 26, Report the organisation's approach to stakeholder engagement, www.hydro.com.au/about-us/governance

G4 – 27, Report key topics and concerns that have been raised through stakeholder engagement, 5

G4 – 28, Reporting period (such as fiscal or calendar year) for information provided, 4

G4 – 29, Date of most recent previous report (if any), 2014–16

G4 – 30, Reporting cycle (such as annual, biennial), annual

G4 – 31, Provide the contact point for questions regarding the report or its contents, inside back cover

G4 – 32, Report the 'in accordance' option the organisation has chosen, 4

G4 – 33, Report the organisation's policy and current practice with regard to seeking external assurance for the report, 4

G4 – 34, Report the governance structure of the organisation, 7, 18

G4 – 56, Describe the organisation's values, principles, standards and norms of behaviour such as codes of conduct and codes of ethics, 4, www.hydro.com.au/about-us/governance

Economic

G4 – DMA, How Hydro Tasmania manages its economic performance, www.hydro.com.au/about-us/governance

EC1, Direct economic value generated and distributed, 48

EC4, Financial assistance received from government, 99

Procurement practices

G4 – DMA, Our approach to procurement, with particular reference to local suppliers, www.hydro.com.au/about-us/governance

EC9, Proportion of spending on local suppliers at significant locations of operation, 41

Availability and reliability

G4 – DMA, Management approach to ensure short and long-term electricity availability and reliability, www.hydro.com.au/about-us/governance

EU10, Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime, Not Reported—this information is proprietary due to market arrangements

Demand-side management

G4 – DMA, Demand-side management programs including residential, commercial, institutional and industrial programs, www.hydro.com.au/about-us/governance

Research and development

G4 – DMA, Research and development activity and expenditure aimed at providing reliable electricity and promoting sustainable development, www.hydro.com.au/about-us/governance

EU11, Average generation efficiency of thermal plants by energy source and by regulatory regime, 33

EU12, Transmission and distribution losses as a percentage of total energy, 33

Environmental

G4 – DMA, Why and how we manage the resources used in our products and services, www.hydro.com.au/about-us/governance

EN1, Materials used by weight or volume, 37

Water

G4 – DMA, Why and how we manage water as a resource, www.hydro.com.au/about-us/governance

EN8, Total water withdrawal by source, 33

Biodiversity

G4 – DMA, Why and how we manage our impacts upon biodiversity, www.hydro.com.au/about-us/governance

EN12, Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas,36

EU13, Biodiversity of offset habitats compared to the biodiversity of the affected areas, not applicable

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G4 – DMA, Why and how we manage our environmental emissions, www.hydro.com.au/about-us/governance

EN15, Direct greenhouse gas emissions (scope 1), 35

EN16, Energy indirect greenhouse gas emissions (scope 2), 35

EN18, Greenhouse gas emissions intensity, 35

EN 21, Nox, sox, and other significant air emissions, 35

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G4 – DMA, Why and how we manage the effluents and waste associated with our operations, www.hydro.com.au/about-us/governance

EN22, Effluents and waste—Total water discharge by quality and destination, 37

EN23, Total weight of waste by type and disposal method, 37

Supplier environmental assessment

G4 – DMA, Describe the systems used to screen new suppliers using environmental criteria, www.hydro.com.au/about-us/governance

EN33, Significant actual and potential negative environmental impacts in the supply chain and actions taken, 40

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Employment

G4 – DMA, Describe actions taken to determine and address situations, where work undertaken within the organisation's supply chain does not take place within appropriate institutional and legal frameworks, www.hydro.com.au/about-us/governance

LA1, Total number and rates of new employee hires and employee turnover by age group, gender, and region, 120

EU15, Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region, 120

EU17, Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities, 119

EU18, Percentage of contractor and subcontractor employees who have undergone relevant health and safety training, 46

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G4 – DMA, freedom of association and collective bargaining, 46

Occupational health and safety

G4 – DMA, How Hydro Tasmania manages occupational health and safety, www.hydro.com.au/about-us/governance

LA6, Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work related fatalities, by region and by gender, 45

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G4 – DMA, Stakeholder participation in decision-making processes related to energy planning and infrastructure development (former EU19), Approach to managing the impacts of displacement (former EU20), www.hydro.com.au/about-us/governance

EU22, Number of people physically or economically displaced and compensation, broken down by type of project, 27

Disaster/emergency planning and response

G4 – DMA, Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans (former EU21), www.hydro.com.au/about-us/governance

Product responsibility

Customer health and safety

G4 – DMA, Why and how Hydro Tasmania manages customer health and safety, www.hydro.com.au/about-us/governance

EU25, Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases, 46

Product and service labelling

G4 – DMA, Why and how Hydro Tasmania manages its product and service labelling, www.hydro.com.au/about-us/governance

PR4, Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes, 27

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G4 – DMA, Why and how Hydro Tasmania manages compliance obligations, www.hydro.com.au/about-us/governance

PR9, Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services, 27

Access

G4 – DMA, Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services (former EU23), www.hydro.com.au/about-us/governance

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EU27, Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime, 27

EU28, Power outage frequency, 33

EU29, Average power outage duration, 33

EU30, Average plant availability factor by energy source and by regulatory regime, 33

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G4 – DMA, Practices to address language, cultural, low literacy and disability-related barriers to accessing and safely using electricity and customer support services (former EU24), www.hydro.com.au/about-us/governance

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