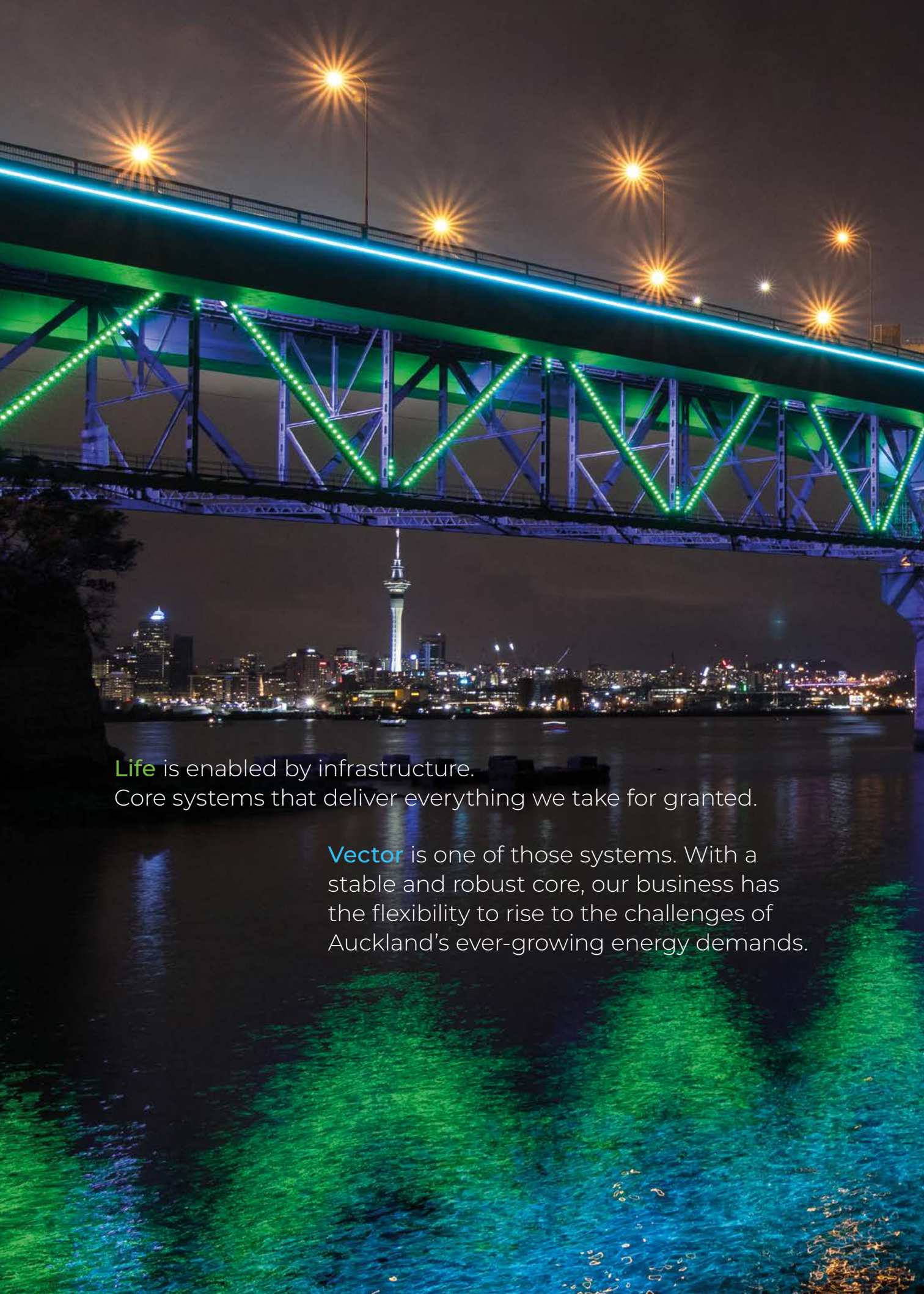




energy systems to  
move us all forward




**Life** is enabled by infrastructure.  
Core systems that deliver everything we take for granted.

**Vector** is one of those systems. With a stable and robust core, our business has the flexibility to rise to the challenges of Auckland's ever-growing energy demands.







Meeting the needs of tomorrow takes foresight, capability and an environment that enables innovation, investment and momentum.

We are leading the way in creating intelligent and affordable energy systems **with the structural integrity to empower** our customers well into the future. Vector is working with customers, industry and global technology companies to ensure we tackle the challenges of a rapidly changing world, and create a new energy future together.

## About this report

This report, dated 22 August 2019, is a review of Vector's financial, operational and environmental performance for the year ended 30 June 2019.

The financial statements have been prepared in accordance with appropriate accounting standards and have been independently audited by KPMG.

The financial, operational and environmental information has been compiled in line with NZX Rules and recommendations for investor reporting, as well as Vector's commitments to the United Nations Sustainable Development Goals. Our greenhouse gas (GHG) emissions as reported on page 35 were also independently assured by KPMG in accordance with ISAE3410. This approach is also consistent with GHG protocol.

The report has drawn from a wide range of information sources. This includes: our stakeholders, customers, communities, sustainability framework, value drivers, risk register, Board reports, asset management plan, financial accounts and our operational reports.

Throughout the report, we have focused on what matters most to our stakeholders and our business.

Care has been taken to ensure all information in this report is accurate, including internal assurance and verification processes and Board approval.

Forward-looking statements in this report are based on best-available information and assumptions regarding Vector's businesses and performance, the economy and other future conditions, circumstances and results. As with any forecast, forward-looking statements are subject to uncertainty. Vector's actual results may vary from those expressed or implied in these forward-looking statements.

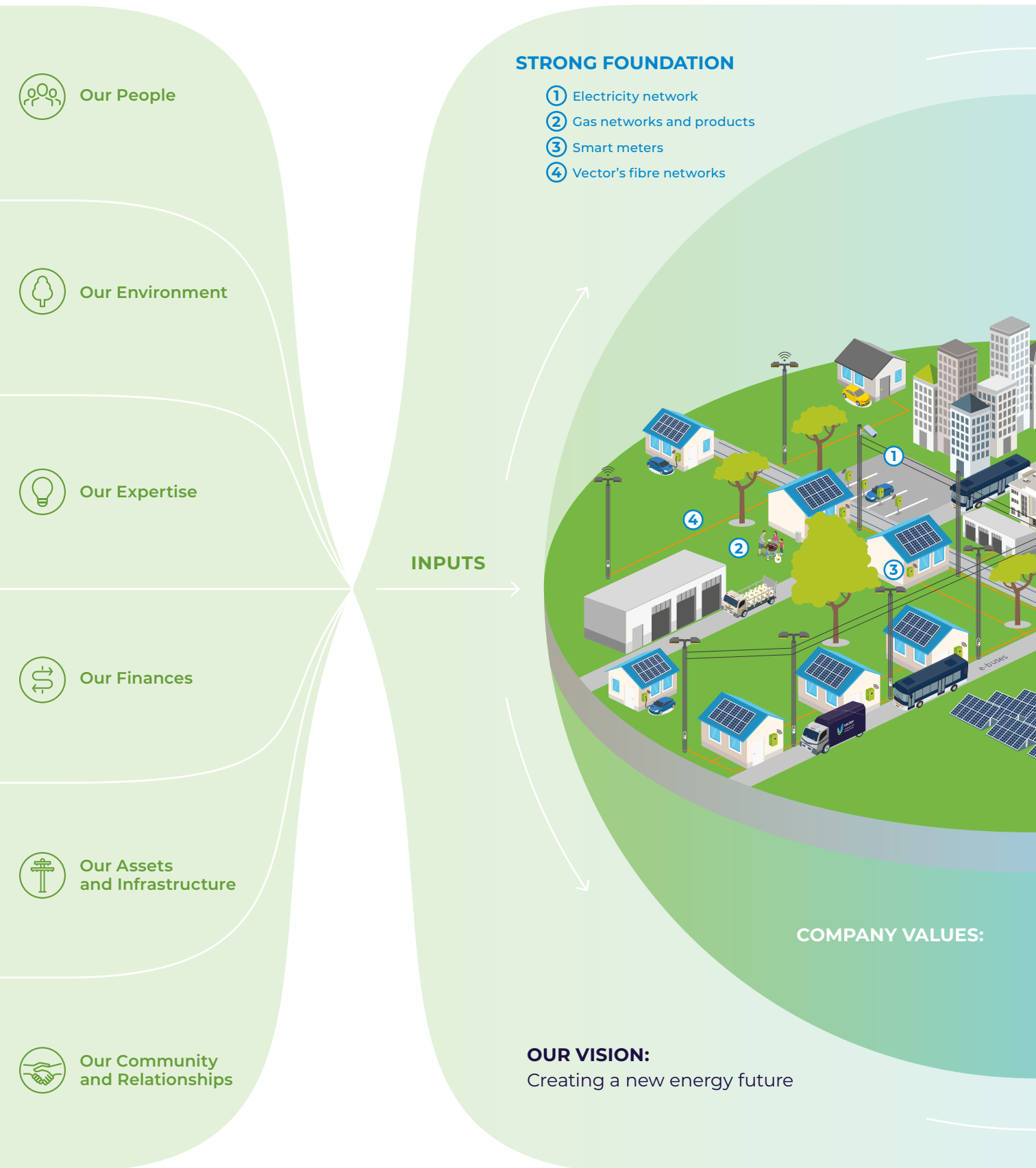


## contents

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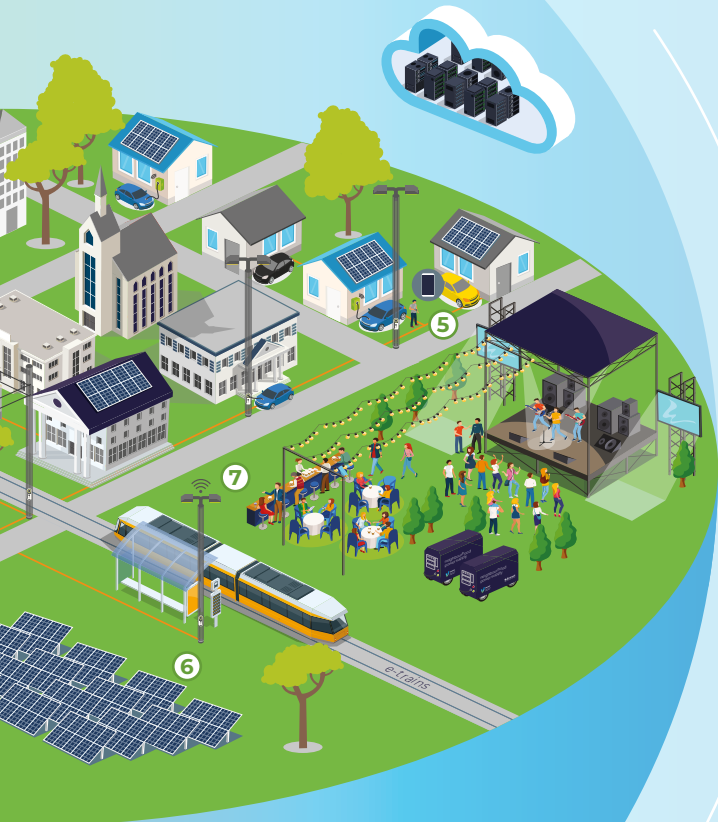
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# how Vector creates value



## NEW ENERGY FUTURE

- 5 More customer choice and control
- 6 New energy solutions
- 7 Intelligent networks



## OUTCOMES

### Consumer empowerment and choice

Enabling positive and sustainable change to give customers more choice and control over their energy needs



### Our energy networks

Safe, reliable, affordable and future-ready energy networks



### Energy innovation

Shaping the evolving energy ecosystem through innovation, and digital and engineering know-how



### Clean energy

Enabling clean energy options to support the transition to a low carbon world



### Empowered people

A workplace that empowers our people to contribute positively to the business, their families and communities



### Financial sustainability

Enabling responsible investment to help power Auckland's growing economy



Passionate, inquisitive, resilient, here to win



# performance snapshot

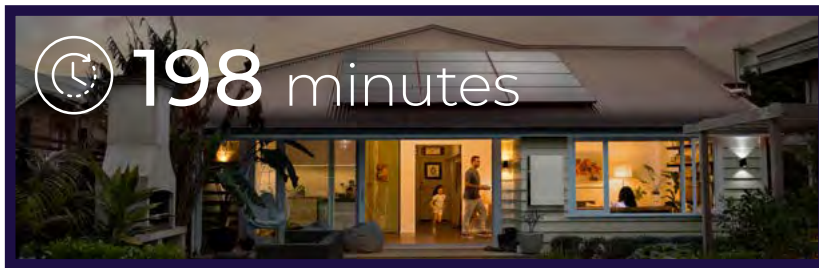
## Our energy networks

**\$260.9M** invested<sup>1</sup> 

to lift network<sup>2</sup> integrity and enable Auckland growth (over \$5 million every week)

**14,322** 

new electricity and gas connections added



system average interruption duration index (SAIDI): 198 minutes average interruption duration per customer in regulatory year 2019<sup>3</sup>



Credit: City Rail Link Ltd (cityrailink.co.nz)

major asset relocation projects to enable significant Auckland infrastructure upgrades

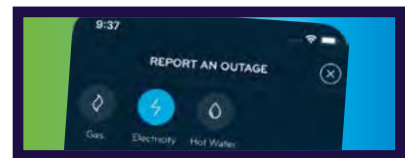
## Consumer empowerment and choice

**1.56M**

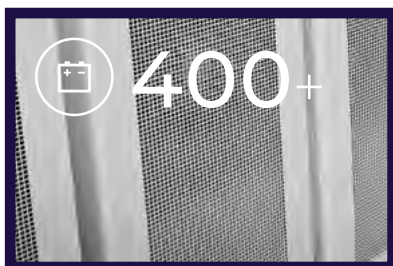
smart meters in New Zealand and Australia

**1.9%** 

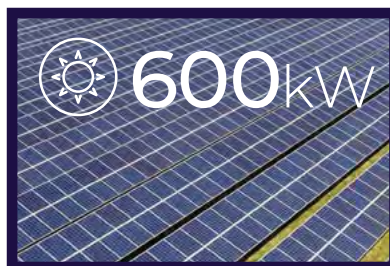
lift in gas liquid sales to 79,170 tonnes



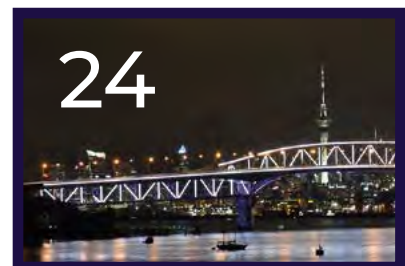
improved online Outage Centre tool launched to customers



network connected energy resources



600 kW renewable energy system installed in Niue



Vector Lights events for the people of Auckland

## Clean energy

17% 

reduction in corporate carbon intensity this year

1,183 tonnes 

CO<sub>2</sub> emissions saved from entering the environment at Vector EV charging stations<sup>4</sup>



31,000

native trees planted through Vector's Urban Forest Initiative over the past year



 96,591

free EV charging sessions provided at Vector's rapid charging stations

## Empowered people

40% 

reduction in our TRIFR<sup>5</sup> compared with FY18, 35% reduction in LTIFR<sup>5</sup>

Accessibility  Tick

Vector is the first New Zealand business to gain the Accessibility Tick

15,750  hours

of learning and development provided across the Vector group this year

## Financial sustainability

\$485.8M

Adjusted EBITDA<sup>6</sup>

\$84.0M

Group net profit after tax

16.50 cents

Per share full-year dividend

1. Gross regulated capital expenditure.
2. Vector's regulated electricity and gas networks.
3. This figure includes SAIDI minutes resulting from Vector's changed health and safety practices.
4. Compared with equivalent energy used by petrol powered vehicles.
5. Lost Time Injury Frequency Rate (LTIFR) and Total Recordable Injury Frequency Rate (TRIFR).
6. Earnings before interest, tax depreciation and amortisation (EBITDA). Accounting changes are consistent with the CFO report.

# strong governance in a climate of change

## Meet our new Chair: Dame Alison Paterson

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**Dame Alison Paterson started her career as an accountant before becoming a professional company director in 1976. She was the first female director of a publicly listed company and has since held senior governance roles with some of the country's foremost organisations, including as Chair of Landcorp and Deputy Chair of the Reserve Bank. In 2018 Dame Alison was appointed Chair of Vector's Board after serving as a director for eleven years.**

**Her services to business were recognised in the 2014 New Year Honours in which she was made a Dame Companion of the New Zealand Order of Merit. Along with Vector, Dame Alison chairs the Boards of Kiwi Wealth, the Forestry Industry Safety Council, Te Aupouri Commercial Development and Te Aupouri Fisheries Management. She is also a member of the Health Quality and Safety Commission.**

**In this interview, we ask Dame Alison about the key changes to Vector's Board over the past year, and what's next for the company.**

### **What have been the key changes to Vector's Board this year?**

After a long period of stability, Vector has worked through a process of Board renewal and we are privileged to have three new business leaders join our Board this year. Tony Carter, Dame Paula Rebstock and Bruce Turner are outstanding appointments. They bring with them wide-ranging commercial and governance experience to complement the capability already in place around the Vector Board table. We look forward to their contribution as we continue towards our goal of creating a new energy future.

### **What new skills and experience have been brought to the Board table?**

We followed a rigorous process to ensure we were introducing the right mix of skills and capabilities to complement those already in place. It is very important to get this combination right, given our role is to govern on behalf of shareholders.

While each new director has a wide variety of governance competencies, particular strengths are shown by Dame Paula Rebstock in regulatory policy and government relations, Bruce Turner in distribution network engineering, operations and market trading, and Tony Carter in customer experience, new technology disruption, government relations and corporate governance.

### **How are you all developing as a team?**

As with any new team it takes time to develop a fresh dynamic, but overall everyone is working well together. What we all have in common is a passion for the energy sector and the critical role Vector will play in enabling a new energy future for Auckland and New Zealand – both now and into the future.

We are developing a strong working relationship with Simon Mackenzie and his management team, many of whom are also new to the business this year. The Board is energised by the wave of fresh thinking combined with institutional knowledge. It's a powerful balance and I am excited about where it's leading us.



### **What excites the Board most about Vector's future?**

We remain excited by Vector's vision to create a new energy future, recognising the changing world, the development of new technologies and how the consumer is at the centre of new technology and behaviours. Much of this is driven by the responsibilities we have within an environment characterised by relentless growth and the increasing electrification of motor vehicles which will only accelerate as New Zealand works towards achieving its net zero carbon goals.

Our ambition is to remain at the forefront of new technology solutions that deliver for our customers. Vector's strategy has two key elements. The first is optimising our core network – the foundation of our business – by making it truly intelligent. Traditional assets will continue to play a key role but they will be integrated with digital and consumer assets. This capability will allow us to more efficiently manage loads and smooth out the demand curve. This will mean we don't have to invest so much in continuing to build more and more infrastructure that runs the risk of future redundancy as technology drives energy efficiency and alternatives.

The second element is to enable a new energy future by empowering customers to better manage and use their energy. Vector has led the way in smart metering and is now developing real traction in alternative technologies such as batteries and solar. We have engaged expertise in New Zealand and internationally, and will continue to take in these insightful global perspectives as we progress this element of our strategy.

Furthermore, the Board is energised by our responsibility to have a strong voice on behalf of our customers and to represent their interests on a variety of industry issues. Some parties won't agree with the positions we take – but at least they know where we stand!

### **What's keeping you awake at night?**

At a time of ultra-low interest rates and pressures on growth, real infrastructure investment in an economy assumes even greater importance. I worry that aspects of regulatory settings risk harming incentives to invest by not being aligned to the uncharted territory we are now in. Inflation within regulatory settings has been consistently over-forecast without correction for a decade. It cannot continue because it has the effect of significantly reducing cashflow available for critical infrastructure investment. Settings must adapt to changing times and regulation is no exception.

[Click here](#) to watch an interview with Dame Alison Paterson.

DAME ALISON PATERSON, CHAIR

# Chair and Group Chief Executive report

*“Through investing in the expansion and intelligence of our networks and energy solutions, and by providing greater choice and control to our customers, we are enabling the accelerating change around us.”*

Like the world around us, the pace of change at Vector is accelerating.

As a company, our work is at the heart of two key challenges facing us – investing to support Auckland’s relentless growth, and providing energy solutions which move us all towards an affordable low-carbon world.

Our customers continue to adopt new technologies in their homes, businesses and leisure activities and, increasingly, with the new electric vehicles that they drive. They tell us that they value energy services that are safe and reliable as well as giving them greater choice and control of how, where and when they use energy.

Vector’s focus is to continue leading the way in meeting these challenges. As signalled in our last two annual reports, significant investment is required to make us future-ready in our traditional energy networks, as well as digital and new energy solutions. While it is our primary responsibility to enable Auckland’s growth, we believe our new energy solutions can benefit everyone – not just Aucklanders.

April 2020 marks the start of the next five-year regulatory period in which the Commerce Commission will reset limits for our electricity network revenues and network quality standards. A key focus of our ongoing engagement with the Commerce Commission is how low interest and inflation rates will crystallise challenges within the

existing regulatory model. We also remain committed to meeting our regulatory compliance requirements.

We strongly believe that regulatory settings should not restrict our ability to deliver Auckland growth or invest in technology to future-proof our network. Within the broader regulatory regime, there are avenues for Vector and the Commerce Commission to work together to correct these anomalies, and better align cashflows with investment needs.

The Commission’s final reset decision is due on 28 November 2019. As has been signalled previously, we will be reviewing our dividend policy once we have the Commission’s decision.

For the past decade, we have worked hard to build a strategic asset portfolio which provides more options for sustainable returns. Alongside our regulated electricity and gas businesses, we have continued to grow our wider businesses, particularly Vector PowerSmart, Vector Advanced Metering Services (AMS) and Vector Communications, which, along with our Gas Trading business, define our company as an energy group with a growing domestic and international footprint.

We are pleased to report solid progress towards our vision of creating a new energy future. Through investing in the expansion and intelligence of our networks and energy solutions, and by providing greater choice and control to our customers, we are enabling the accelerating change around us.

## our year

### Steady earnings performance

The group delivered a steady earnings performance for the year, with the adjusted EBITDA of \$485.8 million ahead of FY18 and in the mid-point of the guidance range provided over the year.

While our revenues continued to benefit from strong connection growth across our networks and the further expansion of the metering business in New Zealand and Australia, these gains were partially offset by increased maintenance expenditure to improve electricity network reliability and the underperformance of E-Co Products Group (trading as HRV).

Group net profit after tax was \$84.0 million and includes a non-cash impairment of \$46.6 million in respect of E-Co Products Group. The prior year's net profit of \$149.8 million included a one-off tax gain of \$16.7 million. If we exclude these, Group net profit after tax of \$130.6 million was down slightly on the prior year.

As a result of the disappointing performance of E-Co Products Group leading to impairment, we have new leadership in place and have repositioned the business with our other technology solutions, through Vector PowerSmart.

More detailed information about our financial performance is provided in the Financial Review on pages 16 to 17.

### Dividend

Our steady earnings performance enabled the Board to declare a final dividend of 8.25 cents per share, taking the full year's dividend to 16.50 cents, up from 16.25 cents last year.

### Lifting our customer delivery

Auckland's relentless growth continues, with 14,322 new electricity and gas connections over the year, averaging around 275 connections each week. Combined with ever-changing customer behaviour, this growth continues to provide significant opportunities and, at the same time, challenges.

Whether it be constructing new assets, adding intelligence to our networks and systems, or developing energy solutions – we have long understood that putting customers' needs at the centre is essential.



Dame Alison Paterson  
CHAIR



Simon Mackenzie  
GROUP CHIEF EXECUTIVE

We invested a further \$260.9 million – or \$5 million every week – in our networks to make them smarter, more resilient and to support Auckland's growth. Our strengthened focus on electricity network reliability is part of our commitment to meet network quality targets in the 2020 regulatory year.

During the year we successfully integrated a software platform into our network which has been co-developed with technology firm mPrest. In the long-term, this platform will support our key objective of keeping energy prices affordable for consumers, while still meeting their expectations around network reliability and enabling energy choice. This exciting project milestone has been made possible by the increasing focus on digitisation of our company over recent years.

We have also continued to invest in our wider portfolio of businesses which remain central to providing the choice and control our customers demand.

Further information on how our businesses have delivered for customers this year can be found on pages 26 to 31.

### Technology leading change

Vector's group of Technology businesses is an integral part of our vision to create a new energy future.

We are pleased with the ongoing growth of our smart metering business Vector AMS, with 1.56 million meters now installed in homes and businesses across New Zealand and Australia.



The Electricity Pricing Review process has drawn attention to the critical importance and value of consumer data across the entire energy value chain. We support the broad consensus that unlocking access to smart meter data across the sector will bring customer service innovation, greater retail competition and more efficient network investment. We are optimistic that this will occur and that these opportunities can be realised for the benefit of consumers.

Our commercial energy solutions business, Vector PowerSmart, has also had a successful year, enabling customers across New Zealand and the Pacific to adopt greater energy independence with solar and battery technology. As an example, our Technology report on page 31 showcases a partnership between Vector PowerSmart and the New Zealand and Niuean governments to install an integrated renewable energy solution for the people of Niue.

We are excited by the substantial changes in both our Vector PowerSmart and Vector Communications technology businesses this year. We welcomed new leadership to both businesses and have embedded new plans to drive future growth.

Of course, our most visible example of new, sustainable energy technology is Vector Lights on Auckland Harbour Bridge, which celebrated its first year anniversary in January 2019. Vector Lights is part of a 10-year partnership between Vector and Auckland Council, in collaboration with the NZ Transport Agency, and already holds growing cultural significance for the people of Auckland. Since its launch, Vector Lights has generated more energy than it has used.

### **Making work an ever-safer place**

Both the Board and management place the highest priority on ensuring that Vector has best-practice health and safety practices. Every one of our staff and contractors must be able to come to work each morning in the knowledge that they will be going home again safely at the end of their work day.

We are delighted with the progress made towards our safety goals this year. We have significantly reduced both the occurrence of injury incidents and their severity, particularly in our contracting workforce. While this progress is clearly a company-wide effort, we acknowledge the award-winning initiatives of our OnGas Bottle Swap team at their new Papakura facility.

### **the Future of Energy is here**

While the challenges facing our networks – relentless urban growth and electrification of transport – are not unique to Vector, they are intensified by the size of our region and the rate of change. Timely investment is critical, both in traditional energy network infrastructure and in new technologies which give our networks the intelligence to meet these challenges.

### **Advancement towards an intelligent electricity network**

Traditional network assets will continue to form the backbone of our network for the foreseeable future. However, the integration of new technologies and digital solutions into the broader system remains critical to efficient capital spend, and to provide the flexibility needed to better manage energy flows as demand grows and changes.

We are continuing to prepare our electricity business for the unabated integration of EV chargers. In light of the Government's recently

announced clean vehicle 'feebate' scheme, it is almost certain New Zealand's 15,000-strong EV fleet – more than 40% of which is on Auckland's roads – will expand considerably.

Our 2019 – 2029 Electricity Asset Management Plan outlines how we will ensure our network has the flexibility to respond to a surge in EV uptake. This includes a digitisation programme to enable better asset management and load optimisation, supported by innovative outage management services. This network platform will provide a strong foundation to give consumers more choice and control over their energy needs. More information on our efforts to enable the convergence of transport and energy can be found on page 26.

The importance of having smarter networks will only increase over time. To this end, we will continue to work with local and central government and regulators to highlight the real value of these platforms, in terms of decarbonisation, customer choice and affordability.

### **Funding efficient investment**

The ability to invest at the right level at the right time is critical. Vector's holistic strategy to fundamentally change its energy system requires significant, ongoing investment as it supports Auckland's growth while investing in a step-change in technology to future-proof its physical assets.

As previously mentioned, a key focus of our ongoing engagement with the Commerce Commission is how low interest and inflation rates are crystallising challenges within the existing regulatory model. Since 2013, significant regulatory forecasting inaccuracies have resulted in around \$270 million of lost revenue for Vector. We believe the case to align regulatory settings with the sector's investment requirements has never been stronger, and we are not alone in calling for change. The Electricity Pricing Review

“ We are advocating the benefits of bringing forward cash flow to support investment, customer outcomes and meet market expectations regarding fair financial returns.”

panel's recent analysis also highlights the issue of persistent revenue under-recovery for many electricity distributors.

This calls into question two critical regulatory settings. The first is the indexation of asset values, which are heavily reliant on inflation forecasts. These have been significantly over-forecasted for a decade, resulting in major revenue impacts to electricity distributors, without correction. More fundamentally, any indexation of asset values is treated as non-cash revenue. From a timing perspective, this reduces the cashflow available to Vector to support critical infrastructure investment at times of high growth and changing consumer behaviour. In our engagement with the Commerce Commission, we are advocating a switch to non-indexing asset values. This change would be net present value (NPV) neutral in respect of what customers pay over the life of the assets, and therefore offers a strong case for regulatory indifference. This precedent already exists for other New Zealand regulated entities.

Secondly, the current ultra-low interest rate environment underscores the urgent need for the Commerce Commission to amend the way it derives the cost of debt in its Weighted Average Cost of Capital (WACC) determinations. Currently this is determined from a narrow window around the time of reset. International regulatory practice typically calculates debt costs based on a 10-year trailing average to better reflect efficient debt book management. Vector is advocating for New Zealand regulation to align with international practice.

We remain committed to working openly and collaboratively with the Commerce Commission – both within the current reset process and beyond – to explore all options within the regulatory framework to address these two challenges. Regulatory and policy settings must be fit for the future, with the key focus being on enabling customers to benefit from energy innovation.

## our people

On behalf of the Board and management, we would like to thank the entire team at Vector for their considerable efforts and contribution as we advance towards a new energy future. Our refreshed senior management team has provided new energy and leadership across the business, too.

For several years, all our employees have had ongoing access to learning and career development opportunities. This is resulting in an increased number of internal promotions, which is particularly pleasing.

We are also pleased with the outcome of the year's pay equity review, where we make role-by-role comparisons for all employees to identify any gender pay equity gaps. In the past year, the very small number of anomalies identified were addressed within the annual remuneration review process. Our goal is to continue to ensure we pay our employees fairly based on the market data for the role they hold, to ensure there is no gender bias.

This year Vector became the first New Zealand company to be awarded the Accessibility Tick in recognition of our efforts to make our company more accessible and inclusive for people with disabilities.

More information on how our Human Resources initiatives are delivering for our people can be found on pages 32 – 33.

## our Board

Around the Board table we saw a significant refresh during the year. Our long-serving independent chair Michael Stiassny stood down at the November annual shareholders meeting. In addition, Entrust trustee Michael Buczkowski joined as a non-executive director, taking over from former trustee James Carmichael. We would like to express

our appreciation to both these former directors for their valued contribution to Vector during their respective tenures.

Earlier this year we welcomed new independent directors Dame Paula Rebstock and Bruce Turner, and the return of former director Tony Carter. While all are highly experienced directors, each brings a different skillset and perspective, and they are adding real value to Vector's governance. Further information about our new Board, is provided on pages 36 to 37.

## looking ahead

While acknowledging the key challenges ahead of us, we remain committed to Vector's vision to create a new energy future for New Zealanders.

We remain confident in our plan to rise to the challenges of Auckland's growth and increasing electrification of transport. We will continue to target investment as efficiently as we can by supporting traditional network assets with digital and new energy solutions for the long-term benefit of energy consumers. However, changes to regulatory settings which enable this investment will be critical.

We are pleased by our ongoing success in the Australian metering market and look forward to continued growth in the coming year. Our revised approach for Vector Communications and the newly consolidated Vector PowerSmart business are already gaining traction, and we look forward to reporting on progress and improved profitability. Our Gas Trading business will continue to adapt and seek new opportunities in the challenging market conditions.

Following the final Default Price Path 3 (DDP3) decision later this year, Vector will be able to provide guidance about expected future dividend payments and FY20 adjusted EBITDA, which may be affected by the reset of our future electricity revenues.



**Dame Alison Paterson**  
Chair



**Simon Mackenzie**  
Group Chief Executive

# Chief Financial Officer report

**Vector delivered a steady financial performance for the year, recording adjusted earnings before interest, tax, depreciation and amortisation (adjusted EBITDA) of \$485.8 million. This was up \$15.7 million or 3.3% on last year's result and in the middle of the company's guidance range of \$480 million to \$490 million. The result includes an uplift due to recent accounting changes.<sup>1</sup> Excluding these changes, comparable adjusted EBITDA was up \$4.8 million or 1.0% on the previous corresponding period.**

**Group net profit after tax was \$84.0 million and includes a non-cash impairment of \$46.6 million in respect of E-Co Products Group. The prior year's net profit of \$149.8 million included a one-off tax gain of \$16.7 million. If we exclude these, Group net profit after tax of \$130.6 million was down slightly on the prior year.**

Adjusted EBITDA for Vector's technology segment grew \$11.5 million<sup>1</sup> (8.8%) to \$142.0 million, as a result of continued growth in smart meter deployments in New Zealand and Australia.

## Impairment

The improved performance of the metering business was offset by the underperformance of E-Co Products Group (trading as HRV). This result was partly driven by the ongoing market challenges faced by HRV's heat pump and solar divisions, as well as the investment made in a leadership change, restructure and repositioning of the business in the second half of the year.

The new management team and CEO, put in place in September 2018, have undertaken a strategic review, and will focus on a new commercial energy solutions approach under the Vector PowerSmart brand. With this new approach, we expect a return to profitability.

In view of the above changes, the Vector group has recognised a non-cash impairment of \$46.6 million.

## Capital contributions

Capital contributions grew by 10.9% to \$79.3 million during the year, resulting from continued connection growth and significant infrastructure development taking place across Auckland.

## Cash flow

Operating cash flow was 10.7% lower at \$348.1 million. This decrease was largely due to the payment of Loss Rental Rebate surpluses directly to electricity account holders. This payment occurred in August/September 2018 and was for Loss Rental Rebates accumulated over the course of the prior year. In addition, the accumulation of Loss Rental Rebates for FY19 have been less than the prior year.

## FINANCIAL HIGHLIGHTS

**\$485.8M**

Adjusted EBITDA

**\$84.0M**

Group Net Profit after tax

**16.50 CENTS PER SHARE**

Full year dividend

## Segment adjusted EBITDA

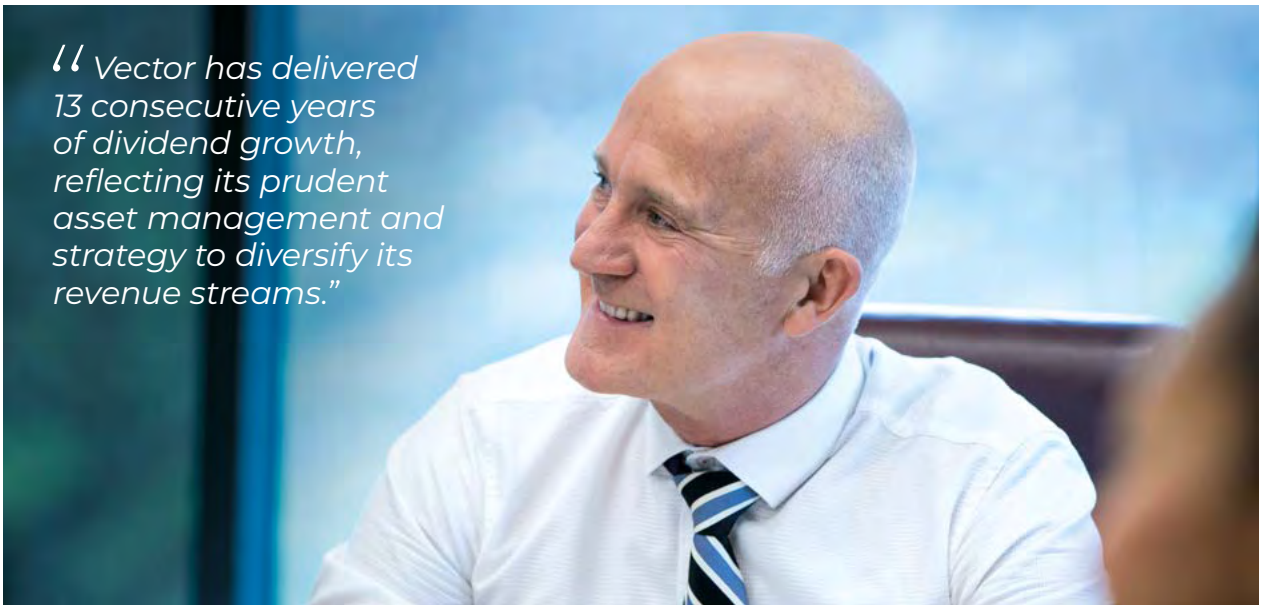
Earnings for our Regulated Networks were \$367.0 million, up \$8.4 million<sup>1</sup> (2.3%) against the prior year. Continued Auckland residential connection growth drove a \$7.1 million increase in underlying electricity revenue<sup>2</sup>, while gas revenue was \$1.7 million lower, mainly due to the full year impact of the October 2017<sup>3</sup> gas price reset.

Total network maintenance expenditure increased by \$2.2 million, largely due to new initiatives focused on improving electricity network reliability and SAIDI performance (refer pages 26 to 27). During the year, Vector and the Commerce Commission agreed to recommend to the Court a penalty of \$3.6 million in recognition of Vector's breaches of the electricity network quality standards in 2015 and 2016.

Gas Trading earnings were \$31.3 million, down \$3.1 million<sup>1</sup> against the prior year total of \$34.4 million, impacted by the loss of a major customer in January 2019 and continued gas constraint supply issues which drove natural gas volumes down by 12.0%. This was partly offset by increased LPG sales and improved cost efficiencies at the new OnGas Bottle Swap processing plant.

1. As at 1 July 2018, Vector adopted new accounting standards for revenue from contracts and leases (NZ IFRS 15 and 16) and changed the way we account for gains/losses on disposal of fixed assets. For more information and a breakdown of NZ IFRS changes by segment see notes to the financial statements.  
2. Net of capital contributions, loss rental rebates and pass-throughs.  
3. The gas distribution reset resulted in a 14% reduction in prices from 1 October 2017.

“Vector has delivered 13 consecutive years of dividend growth, reflecting its prudent asset management and strategy to diversify its revenue streams.”



Jason Hollingworth  
CHIEF FINANCIAL OFFICER

### Capital expenditure

Capital expenditure was \$425.1 million, \$43.9 million (11.5%) higher than last year. This increase reflected continued investment in infrastructure to support Auckland’s continued growth, higher network replacement expenditure, and increasing deployments of smart meters as market demand continues to accelerate in Australia. Network investment projects included the installation of new grid-scale batteries in Warkworth and Snells Beach and a new substation at Hobsonville Point.

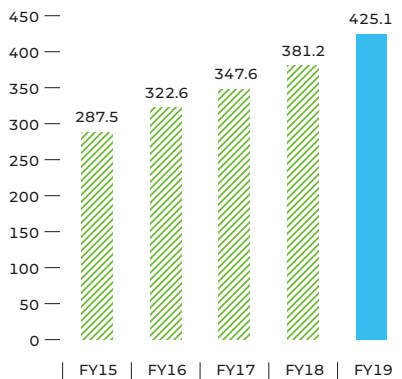
### Balance sheet

Our balance sheet remains healthy, with gearing at 30 June 2019 at 52.2%, up from 48.8% a year earlier, and 49.6% at 31 December 2018. Reflecting our strong balance sheet, Vector continues to hold a BBB credit rating by Standard & Poor’s and successfully issued a \$250 million senior bond in May this year.

### Dividend

Despite operating in a challenging regulatory environment, Vector has delivered 13 consecutive years of dividend growth, as a result of its prudent asset management and strategy to diversify its revenue streams. This year, shareholders will receive a fully imputed final dividend of 8.25 cents per share, taking the full-year dividend to 16.50 cents per share, up from 16.25 cents per share in 2018. The final dividend will be paid to investors who are on the register at 9 September 2019 and distributed to investors on 16 September 2019.

### CAPITAL EXPENDITURE \$ MILLION



**\$348.1M**

Net operating cash flow

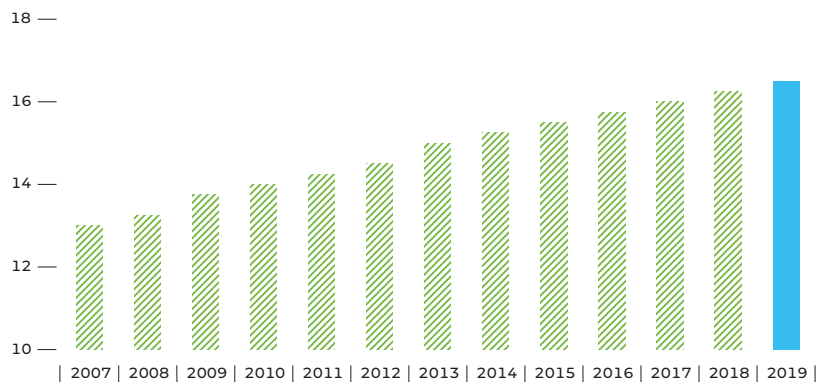
**\$425.1M**

Capital expenditure

**\$250M**

Successful senior bond issued

### DIVIDEND DECLARED CENTS PER SHARE



# our journey to a new energy future

1

Auckland's growth is unprecedented. Since 2013, Auckland's population has grown by the size of Tauranga and Whangarei's populations combined!



+



=



In this time, we've spent nearly \$1.3 billion to strengthen network integrity and support Auckland's growth, and added 59,222 new customers. We've also added 1,019km of network – enough to stretch in a direct line from Auckland to Queenstown!

2

5

And to meet New Zealand's net zero carbon goals, we need an electrified transport system.




We're not the only ones managing the challenges and opportunities of growth. In recent years, significant infrastructure projects have been announced, including:

- + \$1.6 BILLION for Watercare (next 3 years)
- + \$28+ BILLION Auckland Council capital plans for infrastructure (over coming decade)
- + \$82.5 BILLION Auckland Council capital expenditure (next 30 years)

4



And it's not stopping. In the next 10 years we'll see:

-  ~300,000 more people – population of 2 million!
-  Up to 250,000 more vehicles on our roads (based on current ownership rates)
-  117,000 new energy network connections

3

- ⚡ **MORE THAN 40% OF EVs** are on Auckland roads
- ⚡ The approach favoured by the ICCC\* to reduce emissions from the energy sector includes **REPLACING ~2 MILLION VEHICLES** with EVs by 2035
- ⚡ **A FAST<sup>1</sup> EV CHARGER** can add the equivalent demand of 8.8 houses to the grid



Growth and EV uptake puts pressure on infrastructure.



New technology can shift our network peaks and keep energy affordable.



Already we are:

- + **MANAGING MULTI-DIRECTIONAL POWER** flows with network connected energy resources and digital platforms
- + **FLATTENING PEAK DEMAND** with network batteries
- + **TARGETING ASSET MANAGEMENT** through better data
- + **PUTTING MORE EV CHARGERS ACROSS AUCKLAND** to fuel EVs and track usage trends

6

Vector's ambition is to create a new energy future by:



Empowering customers with choice to better manage their energy needs



Making data-driven decisions to invest more cost-effectively



Enabling Auckland growth through asset relocations and new connections



Deepening our understanding of customer needs



Making our network more intelligent to improve management of peak loads



Integrate digital assets and new energy solutions to benefit consumers

10

7

It's a sector-wide challenge to transition New Zealand to the future of energy. We have a shared responsibility to:



- + **DELIVER ENERGY** through safe, resilient and secure networks
- + **PROVIDE AFFORDABLE ENERGY**
- + **IMPLEMENT NEW TECHNOLOGY** to the benefit of all customers

- + **ENABLE ACCELERATING EV UPTAKE** and the electrification of public transport
- + **ENERGISE A NET ZERO CARBON WORLD**
- + **EMPOWER CUSTOMERS** with choice around their energy needs

9

8

We are trialing new things.



- + **POWER DOWN TRIAL** to see if customer incentives can reduce peak loads
- + **VEHICLE TO HOME (V2H) TRIAL** to see if V2H can control loads and boost customer independence
- + **DISTRIBUTED ENERGY RESOURCE MANAGEMENT (DERMS)** ongoing platform development
- + **NEW CUSTOMER CHANNELS (BOTS)**

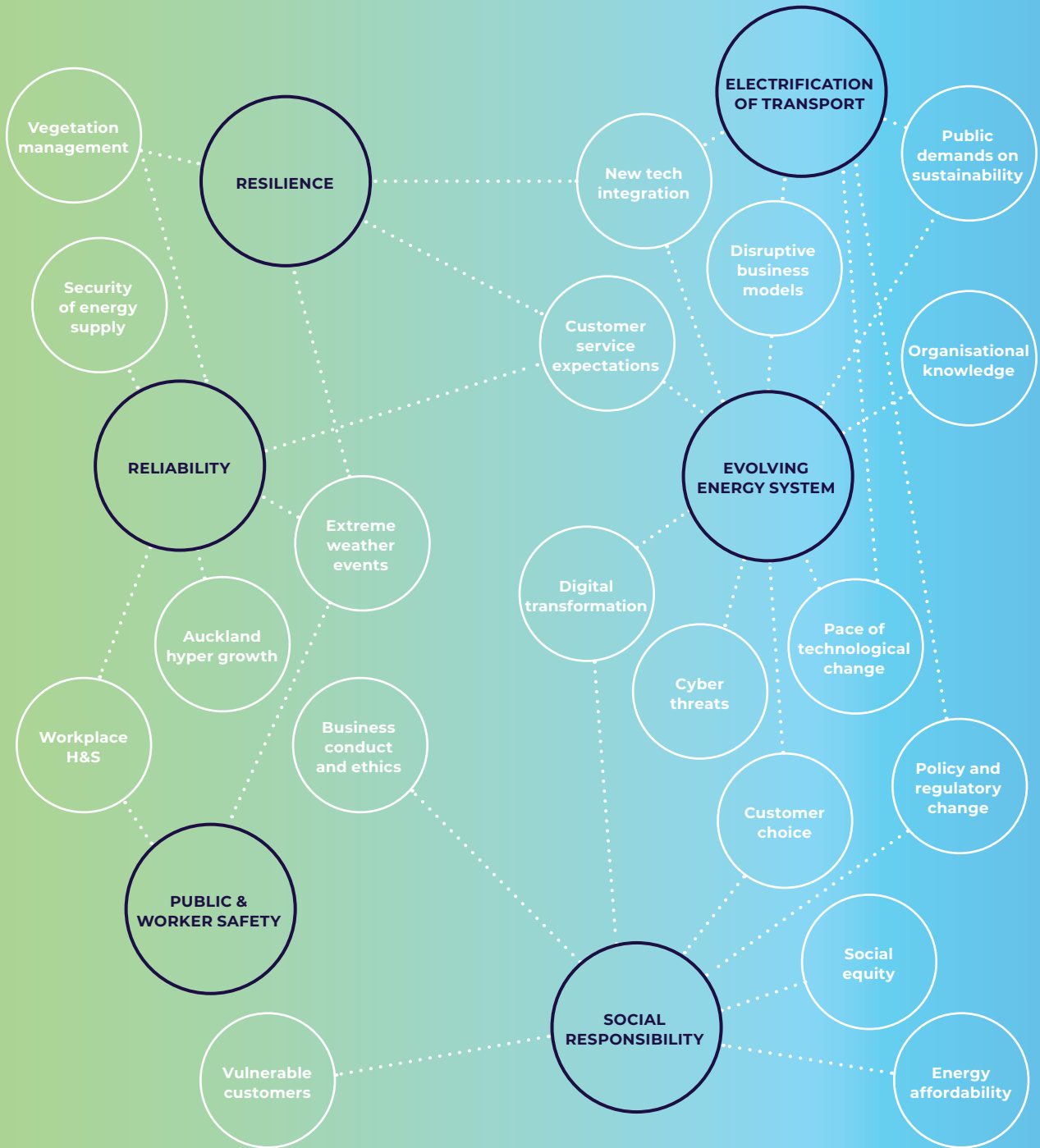
\* Independent Climate Change Committee.

1. Vector estimates adding a 22kW 'fast' charger to a home equates to adding approximately 8.8 homes to the grid.

# our material issues

Vector monitors the changing business landscape, using global and national trends to inform and determine key issues impacting our operating environment, and to support the identification of emerging risks and opportunities.

- CORE ISSUES
- CONTRIBUTING ISSUES



← MAINTAINING VALUE CREATING VALUE →

## Our stakeholders have told us about the matters they consider to be material to our business

---

### Customers

- Safe, reliable, resilient and affordable energy networks
- Real-time updates about outages
- Choice and control over their energy needs

### Employees

- Safe and rewarding workplace that gives them opportunities to grow and develop
- Ability to sufficiently support themselves, their families and communities

### Shareholders

- Stable and sustainable returns
- Confidence in Vector's long term strategy

### Central government

- Safe, reliable, resilient and affordable energy networks
- Aligned approach to achieving policy objectives
- Enabling urban growth, energy affordability, safety and equality
- Enabling the transition to a low carbon economy

### Local government

- Safe, reliable, resilient and affordable energy networks
- Informed about issues and opportunities
- Open partnerships and opportunities for joint infrastructure projects

### Regulators

- Delivering a safe, high-quality network for customers at a fair price

### Suppliers

- Opportunities to collaborate, innovate and cooperate
- Fair and constructive engagement

### Iwi

- Deeper understanding of Māori culture and values
- Opportunity to work together on matters of mutual interest

### Community

- Choice and control over their energy needs
- Safety
- Access to the benefits of an evolving intelligent energy system

### Energy industry

- Fair and competitive energy system that enables positive outcomes for consumers and the environment

### Media

- Informed commentary on issues impacting the energy industry
- Useful and timely outage updates for their audiences





operations, leadership  
and sustainable business

# safety always

**Vector is committed to safety in everything we do. The only thing we care about more than keeping the lights on is keeping our community and our people safe. Vector's aim is to manage the risks inherent in working and living around electricity, gas and other technology systems.**

## Improved safety at work

We have made strong progress towards our safety goals this year, with a significant reduction in both the occurrence of injury incidents and their severity.

Our focus on managing safety centres around the proactive steps we can take to avoid incidents. This includes training to ensure our workers have the right skills to do their jobs safely, audits and inspections to check we are delivering the right outcomes, and leadership engagement to demonstrate commitment from the highest levels of the organisation.

To track how we are progressing, Vector measures its Lost Time Injury Frequency Rate (LTIFR) and Total Recordable Injury Frequency Rate (TRIFR). This year we are pleased to report a 35% improvement in our LTIFR compared with FY18, and a 40% improvement in our TRIFR compared with FY18. Both LTIFR and TRIFR include our own directly employed workforce as well as our contracting workforce. A large portion of the TRIFR improvements have come from our contracting workforce (47% improvement compared with FY18).

Our severity rate (number of working days lost due to injury) has improved by 83% compared with FY18. This shows we are not only reducing both the occurrence of injury incidents but also the severity in nature of those incidents.

## Supporting wellness

Our focus on promoting employee wellness continued throughout this year with initiatives stemming from feedback in our annual Wellbeing 360 survey and other initiatives. Highlights included our Blue September roadshows to raise awareness of prostate and testicular cancer, and where more than 100 male workers underwent a prostate cancer screening test.

To promote healthier eating, we delivered fruit trees and established vegetable gardens at our OnGas Bottle Swap plant in Papakura, providing ready access to a variety of fresh fruit and vegetables. Feedback has been encouraging, and in the coming year we intend to repeat this initiative at other Vector sites.

Vector also welcomed back MINDsense founder Michael Duff, who ran a series of sessions with more than 100 employees participating each time. These sessions help our people to build a more positive self-view by exploring positive ways to direct thoughts, actions and outcomes.

## Safer communities

Vector is committed to educating communities about the importance of keeping safe around electricity and other energy infrastructure.

Our award-winning Stay Safe Around Electricity schools programme is offered free of charge to schools and links directly to the New Zealand Curriculum. The programme runs in Years 3 to 8. In the last year, we visited 28 schools and engaged with 5,070 children.

Vector continues to support 'beforeUdig', an online service giving anyone undertaking excavation works access to information on the location of cables, pipes and other utility assets in and around any proposed dig site. This helps to protect people and valuable assets during these works. In 2018, more than 172,000 enquiries were managed through the site.

5,070 

students attended Vector's Stay Safe Around Electricity schools programme

4801 

certification maintained for New Zealand and Australian businesses, 7901 certificates continued

90 

Health and safety leadership engagements undertaken

400 

employees have participated in 'fatigue awareness' roadshows over the past two years



OnGas Bottle Swap Plant won Health and Safety Initiative of the Year at the 2018 Deloitte Energy Excellence Awards

40% 

reduction in our TRIFR compared with FY18

83% 

reduction in severity rate (number of working days lost due to injury) compared with FY18

35% 

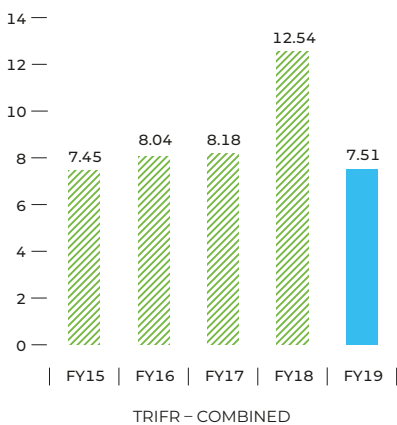
reduction in our LTIFR compared with FY18

6,070 

HSE training hours completed

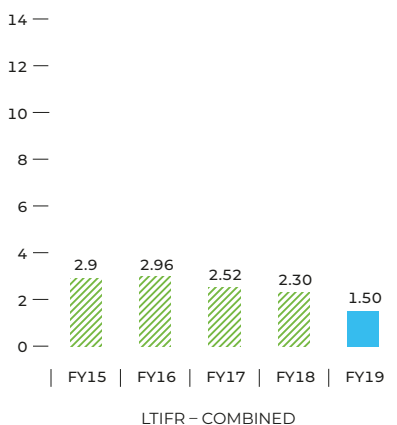
**TOTAL RECORDABLE INJURY FREQUENCY RATE**

Number of recordable cases per million hours worked including contractors



**LOST-TIME INJURY FREQUENCY RATE**

Number of lost time injury incidents per million hours worked including contractors



**Helping our people manage fatigue**

We know fatigue is a key underlying contributor to many of our critical health and safety risks. With many of our people holding safety-critical roles, we want to ensure we are managing the risk of fatigue well. This year, we have adopted new technology to help.

Building on our safety awareness roadshows, which included fatigue management strategies, we are trialling the effectiveness of the Readiband device. Similar to a Fitbit, the device is worn on the wrist to record sleep data, and is helping to build a fatigue risk profile so we can proactively identify and manage fatigue issues.

Our OnGas business is also trialling the Guardian Seeing Eye Machine camera, which is installed in vehicles to detect eye movement, including 'micro-sleeps' and distractions. An alert is sent to the driver if the camera picks up any concerns. Depending on the effectiveness of this trial, we may install the cameras in the company fleet.

# regulated networks

**Our Regulated Networks, which include the electricity and gas distribution networks, provide the strong foundation for us to build a new energy future for Auckland. Maintaining the integrity of these networks is critical as we continue adapting to the disruptive pressures of urban growth, our changing climate, advances in new energy technology and ever-evolving customer needs.**

In FY19 we invested \$260.9 million to improve the safety, reliability and resilience of our network and facilitate Auckland growth.

Adjusted EBITDA was \$367.0 million, up \$8.4 million<sup>1</sup> on last year, largely driven by higher electricity revenue from increased connections due to consistently high residential growth in Auckland. This was partially offset by increased maintenance expenditure.

## Volumes and consumption trends

Volumes transported across the electricity network fell 0.4% to 8,410 GWh, largely due to warmer average temperatures in May and June 2019 compared with the corresponding period last year. Electricity consumption per household appears to have stabilised after more than a decade of decline. Auckland gas distribution volumes fell 0.7% to 14.4 PJ from 14.5 PJ in the prior year.

## Enabling urban growth

In the last year, we added another 11,000 new electricity connections and 3,322 gas connections to our networks. Total electricity connections stood at 571,125, 1.4% higher than a year ago, and total gas connections were 111,642, up 2.2% from 109,229 in the prior year.

Vector plays a critical role in enabling new connections and asset relocation for infrastructure development, including roads and wastewater systems, housing and public transport.

During the year, we worked on 17 major asset relocation projects to enable major Auckland infrastructure upgrades. For example, in the City Rail Link project assets were relocated to make way for tunnelling. With no sign of a slowdown, we are working with our regulator to ensure these projects can be appropriately funded in the future.

## Convergence of transport and energy

In the past year, we've seen increasing Government policy focus on the accelerated electrification of the transport sector, to help New Zealand achieve its zero carbon goals. Vector has been proactively preparing Auckland for the impacts that the rise of electric vehicles (EVs) will have on our energy systems. With some fast residential EV chargers adding the equivalent of 8.8 new houses to the electricity grid, it is imperative that we understand future network impacts.

Over the past year Vector's 29 EV charging stations installed around the city provided more than 96,000 free charging sessions and 800 MWh of electricity to EV users. The chargers are providing us with valuable insights about customer charging behaviour for future network planning.

## Improving reliability for our customers

In recent years, we have faced a range of challenges which have resulted in the increased frequency and duration of outages on our network. We remain committed to meeting our regulatory compliance requirements, and this year we have strengthened our focus on improving electricity network reliability. An example is a changed approach to the significantly increasing travel times, which remain an ongoing challenge for our crews.

**\$260.9M**

invested in our Regulated Networks<sup>2</sup>

**14,322** 

new electricity and gas connections

**400+** 

network connected energy resources



problem trees removed to protect overhead power lines and 31,000 native trees planted through our Urban Forest initiative

1. For the breakdown of NZ IFRS changes by segment, see notes to the financial statements.  
2. Gross regulated capital expenditure.

The Automobile Association recently reported that the average Auckland motorway commuter lost 85 hours to congestion in 2018. In an effort to reduce the travel required to assess and repair faults, we have significantly strengthened both the number of fault crews and the amount of network equipment stored at strategic locations around the city.

Under its agreement with Entrust, Vector has invested in more standby mobile generation, which has already improved our ability to restore power quickly to customers while our crews work to repair the faults.

We are also stepping up our community engagement to better manage problematic trees surrounding power lines, and have adopted aerial imaging and data analytics to identify problem vegetation more accurately. In tandem, we continue to collaborate with industry to reform tree regulations that constrain our ability to trim and cut vegetation. The Government's long-awaited review of tree regulations is currently underway and is expected to provide greater clarity of tree owners' accountability where trees threaten wider community electricity resilience.



## Turning EVs into power sources

Our development of a Vehicle to Home (V2H) solution for New Zealand continues at pace, mostly thanks to an Energy Efficiency and Conservation Authority (EECA) grant to explore the customer and network benefits of V2H technology. We currently have customers in Piha trialling V2H systems which can effectively turn EVs into mobile batteries. The trial will help determine how this technology would help ease expensive peak demand on our network as well as providing a backup supply for customers during short-term outages.

This research is important because, as EV uptake grows, so will the demand for electricity, especially when people want to recharge their EVs at peak times. While we can always keep building more network infrastructure to meet demand peaks, this comes at a very high cost for consumers. Investigating the potential of new technology like V2H allows us to consider alternatives which are more fit-for-purpose and affordable.

## Vector DERMS platform

In 2018, Vector successfully introduced the first stage of a full company implementation of our Distributed Energy Resources Management System, (DERMS), taking the management of our core assets into the cloud. DERMS is a highly intelligent software system, able to connect distributed energy assets like solar panels and storage battery connections to our traditional infrastructure and management systems. Over the past year, more than 400 customer and network connected resources have been integrated with the network using the DERMS platform to provide visibility and manage the complex and real-time interactions between the network and the ever-increasing number of distributed energy assets. In addition, DERMS is providing an unmatched level of security and reliability to our energy management, including predictions around loading on critical infrastructure assets such as power transformers, and supports improved response to unexpected events, including extreme weather. This has given us confidence that we can scale it up to more than half a million homes and businesses within the next decade. We expect this system to be a high-value strategic asset for many years to come.





### Mixing traditional assets with new technology

Vector recently published its updated [Asset Management Plan \(AMP\)](#), setting out how we intend to deliver a resilient, reliable electricity network to Auckland over the next 10 years – a period in which the region’s population is expected to exceed two million people.

In our AMP, a smart mix of traditional and digital assets underpins our drive to provide safe, reliable and affordable energy for a continually growing customer base. We have a digitisation programme underway to enable better asset management and load optimisation, and supporting innovative outage management services. This platform is the foundation of a new customer proposition that will give consumers more choice and control over their energy needs.

Based on our experience to date, we know that further investment in digital technology will significantly enhance the capabilities of our physical networks, as well as our ability to quickly adapt to changing demand.

In the new five-year regulatory period beginning next April, these types of investment decisions will increasingly challenge the current regulatory settings, which have been built from historical spending categories. Vector is working with the Commerce Commission and the Government to ensure regulatory settings do not limit our ability to invest in new technology for the long term benefit of consumers as Auckland grows.

### Warkworth and Snells Beach battery systems

Auckland Council estimates that Auckland will have two million residents by 2028. It’s therefore no surprise we’re experiencing increasing customer density in the established parts of the network and new demand at the fringes. As once sparsely populated rural areas like Warkworth and Snells Beach grow, the associated increase in electricity demand is putting real pressure on local networks.

Last year, Vector reinforced electricity supply to Warkworth and Snells Beach by installing large battery systems. They work by drawing and storing electricity during periods when the community is using little power, and releasing the electricity when needed to support the local network during high-use periods. This approach allows us to cater for localised growth in the near term while considering how the needs of the area should be met in the long term.

An added benefit is flexibility – should a battery system no longer be required, we can move it to a new location.



# gas trading

**Natural Gas faced a challenging year on the supply side, with multiple planned and unplanned outages of major gas fields. These outages led to significant supply disruption for some customers and contributed to a 9.0% fall in segment earnings for Gas Trading. Adjusted EBITDA for Gas Trading was down to \$31.3 million<sup>1</sup> from \$34.4 million a year earlier.**

Our Gas Trading business provides energy choice for consumers in their homes and businesses, and this year we saw further evidence of its enduring popularity. The LPG business delivered another strong performance, with cylinder LPG operations seeing increased volumes, while bulk LPG supplies were flat. Gas liquid sales were up 1.9% to 79,170 tonnes. Bottle Swap 9kg cylinder volumes were up 0.8% to 658,159 swaps and sales from 652,859 a year earlier. Liquigas tolling volumes were down 17.1% to 152,206 tonnes, mainly due to lack of exports over the period.

On the supply side, we welcomed an 8.5% increase in field production and throughput from our Kapuni gas treatment plant this year, which contributed to the overall result.

## Delivering in a challenging wholesale environment

Total natural gas supply in the period was 16.1 PJ, down 12.0% on last year. The gas field outages led to unprecedented market volatility as gas-fired generation remains important for the security of New Zealand's electricity supply. Shortages of gas have a flow-on impact on retail electricity bills, particularly in periods of low hydro lake levels or high demand in winter.

On behalf of our customers, Vector continues to advocate for greater transparency around upstream outages to enable better planning. In the coming year, we hope to see progress towards regulatory changes that will bring the industry more transparency, efficiency and confidence in the wholesale gas sector.

1. For the breakdown of NZ IFRS changes by segment, see notes to the financial statements.

## Lifting standards in residential and industrial gas use

Our OnGas Bottle Swap Plant won the 'Health and Safety Initiative of the Year' at the 2018 Deloitte Energy Excellence Awards in recognition of its leading plant and process innovations. The award marks the culmination of five years of careful design to address the wellness of its operators, including gas recapture technologies, on-site breakfasts and adoption of water-based paints.

Innovation continued over the year with the introduction of new shot-blasting equipment that adopts automated machine loading functionality, increasing the Bottle Swap Plant's capacity for gas recapture. This has dual benefits of reducing waste and limiting emissions.

We have also introduced health and safety training material for our commercial customers and partners, which includes a training video specific to our forklift cylinder exchange and on-site forklift cylinder filling activities.

Our bulk-use transport partners are also receiving the benefit of our new dedicated virtual-reality simulation experience. This assists drivers to run through common procedures in a safe environment.

## Helping shape the future

Our Gas Trading business performs best when we put customer needs, innovation and great service at the centre, and this will remain our approach as we work to achieve continued growth in FY20. A key area of focus will be to further leverage Vector group's leading approach to risk, safety and sustainability to add value to customers in an increasingly competitive market. This includes continued efforts to share safety and hazard mitigation expertise with customers to help them advance towards their own compliance targets.

8.5% 

increase in field production and throughput at Kapuni treatment plant

1.9% 

lift in gas liquid sales to 79,170 tonnes



# technology

**Our Technology business unit encompasses a range of energy expertise, products and solutions that are crucial to our vision of creating a new energy future for our customers.**

These solutions range from smart meters which give households better visibility and control over their energy use, to the clean energy microgrids installed by Vector PowerSmart, which are helping small Pacific nations to reduce their dependence on imported fossil fuels.

Adjusted EBITDA for the Technology segment was \$142.0 million<sup>1</sup>, up \$11.5 million or 8.8% from a year earlier, with gains from the smart meter roll-out offset by a disappointing result from E-Co Products Group.

## Metering

Our smart metering business, Vector Advanced Metering Services (Vector AMS), continues to stand out as a market leader, helping retailers to better manage their business and respond to their customers' needs.

We are pleased to report continued strong demand for our smart meters in homes and businesses across New Zealand and Australia. In the past year, our smart meter fleet grew by 10.8% to 1.56 million, which includes more than 160,000 smart meters in Australia. With this accelerating pace of deployment, we are now averaging nearly 9,000 installations in Australia per month. Back home, growth also remains strong, with almost 57,000 meters installed in New Zealand this year. An example of our innovation this year is the halving of delivery time for meter data to customers, boosting quality and timeliness of our service delivery.

In September 2018, Vector AMS acquired Vircom, which is a nationwide provider of field services for residential and commercial smart metering customers. Vircom has enhanced our existing services, enabling us to provide a full-service nationwide metering capability. It is now integrated into our core metering operations.

## Communications

Vector Communications delivered a steady performance over the year. Customer dependency on high-speed telecommunication services continues to increase across the board and we recognise an opportunity for Vector Communications to further capitalise on its fibre assets in the wholesale market.

## New energy solutions

Over the past year, our new energy solutions businesses have experienced tremendous challenge and change. New Vector PowerSmart CEO Colin Daly started in September 2018 and immediately set about reviewing operations and refreshing the group's vision and direction.

Critical to the new direction has been the consolidation of the various businesses, rationalisation of products and services, and distillation of brands to a focused, concentrated offer to market.

The E-Co Products Group will operate solely as the well-known brand HRV. HRV will focus on ventilation, heating and air-conditioning and will be regionally based to stay close to its customers and improve both service and experience.

HRV has joined with Vector's commercial solar and battery storage company, PowerSmart, to form Vector PowerSmart. With some of Vector's top product and marketing talent also joining the Vector PowerSmart business, focus will be placed on the development and delivery of technologically advanced energy solutions.

These solutions promise to be compelling to customers, commercially focused and meeting the needs of rapidly evolving markets.

With the changes outlined above now in place, we are confident that Vector PowerSmart has the right structure, team and approach to succeed. Accordingly, we expect an improved performance in FY20 with the HRV business returning to profitability.

**10.8%** 

growth in smart meter fleet

**1.56M**

smart meters in New Zealand and Australia

**600kW**

renewable energy system installed in Niue

1. For the breakdown of NZ IFRS changes by segment, see notes to the financial statements.

## Vector PowerSmart supporting Niue's new energy future

The past decade has seen massive development and investment in renewable energy, centred around solar electricity and large-scale batteries. With the South Pacific region at the forefront of the effects of global warming due to rising sea levels, the need to reduce carbon emissions in the Pacific Islands is very real. This has led most South Pacific countries to start investing in renewable energy and introducing renewable energy targets.

### The situation in Niue

The small island nation of Niue, like many other countries in the South Pacific, has relied on diesel generators for their electricity for decades. Niue has historically been supplied by four 500kVA diesel generators which distribute the electricity via two networks across the island. Over the past decade, this supply has been supported by solar power arrays, which has brought mixed results due to the challenges of balancing

the demands of Niue's electricity grid with the solar and diesel-generated electricity. This resulted in curtailing the solar generation to try and maintain grid stability, which meant that not all solar electricity produced on the island was able to be used.

### Vector PowerSmart's solution

Working with Ministry of Foreign Affairs and Trade (MFAT) and the Niuean Government, Vector PowerSmart designed and built a sustainable generation plant and energy management system for the island, using new solar and battery technology. The 600kW of solar technology has produced 320,000kWh of electricity in the six months since 1 January 2019. Diesel consumption has reduced alongside CO<sub>2</sub> emissions.

Practically speaking, this means on sunny days the diesel generators of Niue are often switched off for up to 12 hours. The solar system is connected to a 3MWh lithium ion battery energy storage solution (BESS) connected to the grid at Niue's power station. Vector PowerSmart's state-of-the-art energy management system controls

the flow of electricity from the diesel generators, solar arrays (old and new) and the BESS to maximise Niue's use of renewable solar electricity.

### A new energy future for Niue

In 2015 the government of Niue released its Strategic Energy Roadmap, which stated a target of having 80% of electricity produced from renewables by 2025. Vector PowerSmart's newly implemented energy technology will go a long way to helping Niue achieve this goal by increasing the island's use of renewable energy.

*This project was implemented in partnership with the Government of Niue and MFAT.*



# our people

**Our people are a key ingredient in how Vector ensures its customers enjoy affordable access to energy, when and where they need it.**

Over the past year, we have continued to invest in engaging and developing our own people, as well as helping to broaden the pool of future talent. We are pleased to report solid progress, as evidenced by increased internal promotions, a significant lift in external applications from all parts of the community and the continued strengthening of Vector's reputation as an employer of choice.

**Developing from within**

Vector delivers a broad range of development programmes, aimed at the continued strengthening of organisational capability and helping our people reach their potential. During the year, more than 15,750 hours of learning and development were provided across the organisation. Over the past three years, more than 190 people have participated in our core leadership programmes and, pleasingly, 32% have received internal promotions. Notably, 35% of participants from the 2018 Women in Leadership cohort have received internal promotions.

Such visibility for career progression has encouraged more people to participate this year, with nearly 300 people attending programmes focused on mentoring, career and personal development, and leadership development. We celebrated the graduation of the third cohort of Women in Leadership, as well as over 50 new or emerging leaders completing the Foundations of Leadership programme.

**The future of work**

For the first time, we are fast approaching a workforce comprising four different generations, and it is evident that the traditional cookie-cutter approach to employment and conditions is no longer fit for purpose. While Vector has always offered flexibility in roles and conditions to meet changing employee needs, we have commenced a wider review of the entire employee experience and HR model this year.

The review began with a series of workshops, focused on understanding what is important to our people. Engagement was high and Vector's supportive culture was positively viewed, as were our flexible working conditions and our collaborative approach to problem solving.

**Pay and conditions**

With key skill shortages remaining a fact of life, Vector has continued to review and refine its employment conditions

to ensure it remains an employer of choice. The introduction of enhanced parental leave conditions and greater job flexibility has been positively received, both in the market and internally.

Following our first pay equity audit in 2017, we have continued to focus on reducing the equity gap by ensuring similar roles in the organisation are in line with market data and internal relativity. In the past year, the very small number of anomalies identified were addressed within the annual remuneration review process. Our goal is to continue to ensure we fairly pay our employees based on the market data for the role they hold to ensure there is no gender bias.

**Increasing the talent pool**

Evidence shows that a truly customer-centric organisation needs a workforce aligned with its customer base to drive ideas, improvements and innovation across the business. This is a key goal for Vector and we are slowly and steadily making progress towards having a community-representative workforce, in respect of gender, ethnicity and age.

While all employee appointments remain uncompromisingly merit based, Vector is also committed to enhancing the pool of people applying for roles. Specifically, we are investing to promote opportunities to parts of the community that would not normally participate in our business or in science, technology engineering and manufacturing (STEM) roles. We are challenging ourselves to rethink the attributes required for roles too, and to address unconscious bias which may have developed over time.

Vector has continued to deliver external programmes focused on developing a larger talent pool in the traditionally under-represented areas of Pasifika and women in STEM roles. These include the Growing Pasifika Niu Leaders programme and Women in Leadership. This year has also seen a strong focus on developing our youth pipeline and our future talent, with Vector actively participating in external career programmes including

**15,750 HOURS**

of learning and development provided across Vector group this year

**35%** 

of participants from the 2018 Women in Leadership cohort have received internal promotions

**190 PEOPLE**

have participated in our core leadership programmes in the past three years, of these 32% receiving internal promotions

**VECTOR EMPLOYEES BY GENDER**

VECTOR GENDER BREAKDOWN	MALE 2019	FEMALE 2019	DIVERSE 2019	MALE 2018	FEMALE 2018
Directors	5 (62.5%)	3 (37.5%)		5 (62.5%)	3 (37.5%)
Executive team	5 (71.4%)	2 (28.6%)		6 (85.7%)	1 (14.3%)
Direct reports to the executive team	29 (78.4%)	8 (21.6%)		25 (65.8%)	13 (34.2%)
Across Vector group	635 (65.5%)	334 (34.4%)	1 (0.1%)	563 (67.5%)	271 (32.5%)

Data in all charts and tables on these pages 32 and 33 exclude statistics from subsidiaries PowerSmart and E-Co Products Group.

GirlBoss, Engineering NZ Careers Evening, Shadow Tech and Shadow a Leader. We have also provided our under-30-year-old employees with development opportunities such as the RYLA and Smartseeds leadership programmes and the sponsorship of the internal GenR8 team to work on cross-functional projects. Further information about these programmes is available on the company's website.

We are pleasingly seeing the positive impacts of these initiatives in the number of job applications, as well as the proportion of women in STEM roles in our digital business increasing from 25% to 41% since 2018.

Progress towards a more diverse workforce has been slow and steady, but we are satisfied it is heading in the right direction. In the past four years, we have seen a gender composition shift, with the number of female employees increasing from 29.5% to 34.4%. Age-wise, our employees aged 20 to 39 years have increased 7.8% and those 40-years-old+ have decreased by 7.5%. Our ethnicity profile has moved only slightly, with Māori and Pasifika representation up only 1 to 2%.

### Supporting all employees

Vector's proud reputation as a diverse and inclusive organisation was further enhanced in 2018 when it became New Zealand's first business to gain the Accessibility Tick. The accreditation followed a review of our policies, practices and working environment for people with disabilities, including mental health. A 12-month action plan is now underway to further improve the accessibility and support for people with disabilities within the company.

Vector's leadership in employee diversity and inclusion has been recognised externally. We were a finalist at the Rainbow Excellence Awards (Leadership category) and a finalist in two categories at the Diversity Works Awards (Empowerment – Women in Leadership; and Diversability – Accessibility programme).



4.9% 

rise in female employees, up from 29.5% to 34.4% in four years

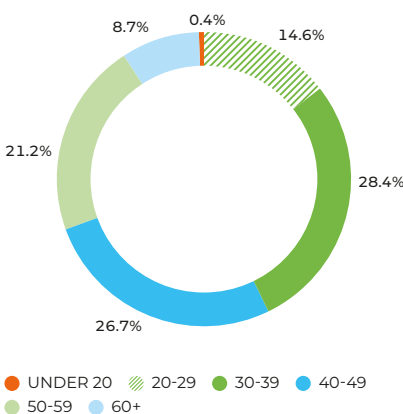
**Accessibility Tick**

first New Zealand business to gain the Accessibility Tick

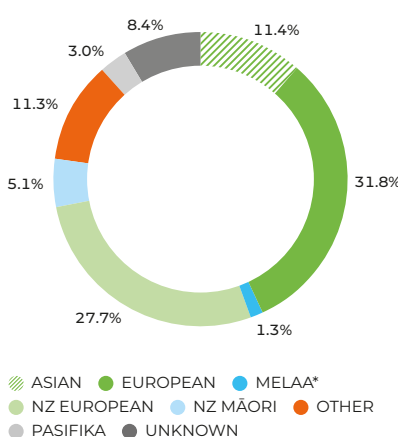
### EMPLOYEES BY AGE AND GENDER

Age	MALE	FEMALE	DIVERSE	TOTAL
UNDER 20	2	2		4
20-24	17	25		42
25-29	58	41	1	100
30-34	93	45		138
35-39	88	49		137
40-44	84	44		128
45-49	77	54		131
50-54	82	39		121
55-59	64	21		85
60+	70	14		84
<b>Total</b>	<b>635</b>	<b>334</b>	<b>1</b>	<b>970</b>

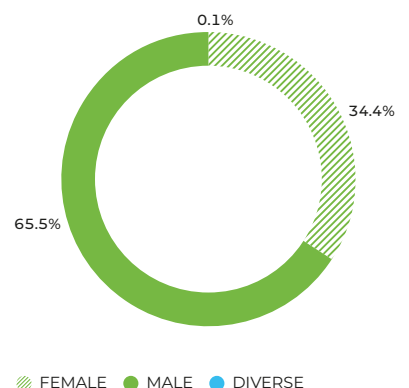
### EMPLOYEES BY AGE



### EMPLOYEES BY ETHNICITY



### EMPLOYEES BY GENDER



\* Middle Eastern, Latin American and African.

# our environment

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## **Our relationship to the environment is becoming increasingly important as we respond to the changing climate and the challenges posed by pressures on resources and biodiversity.**

### **Improving understanding through scenario analysis and modelling**

We are continuing to improve our understanding of the financial and operational implications of climate change on the company. Scenario analysis and modelling on both the physical and economic impacts of climate change is being used to inform key decision-making and planning across the business. As an example, our updated AMP has integrated projections of increased high winds and the expected demand-side changes for electricity that were identified in the scenario analysis.

Our adaptation to the physical impacts of climate change is part of a broader resilience focus. This includes increased battery storage on the network; trials with Vehicle to Home (V2H) technology; aerial bundled conductors and an increase in vegetation management, recognising the increasing role that changing weather has on the network. Vector has invested in fault prediction capability that analyses weather, vegetation and network information to predict likely network impacts from a weather event.

### **Working together on climate change issues**

We have been proactive in engaging with stakeholders on climate change. Over the past year, Vector shared its learnings on how to assess the physical impacts of climate change with a range of organisations, including in the energy sector. We have also been engaging with suppliers on greenhouse gas (GHG) emissions. Measuring and reducing emissions is a key part of our soon to be released supplier code of conduct and through the development of this, conversations have been had with a number of key suppliers.

Vector continues to work with other corporates to create the transformation required to address climate change. We are active in both the Climate Leaders Coalition (CLC) and the recently formed Aotearoa Circle. Climate-X, an innovation platform funded by the CLC and developed with support from Vector and other CLC businesses, was launched in 2018 and the first sprint event took place in July 2019.

At a city level, Vector has been involved in the development of Auckland's climate action plan, participating in workshops and the Climate Symposium. We are co-leading one of the flagship actions to explore how ultra-low carbon and resilient energy solutions can be delivered at scale in Auckland. This action involves collaboration with other energy businesses as well as housing developers.

Our progress on climate action was acknowledged this year, with an award from the Carbon Disclosure Project (CDP) for the best first-time performance across Australia and New Zealand. CDP reporting requirements are based on the Task Force on Climate related Financial Disclosures (TCFD). The process of preparing a response has highlighted to the business areas where we continue to improve.

We have also convened an industry group to develop a product stewardship scheme for large lithium ion batteries, called the Battery Industry Group. Batteries are a key element in the new energy future, but without a clear plan for managing both the second-life and end-of-life of these batteries, there will be lost value and environmental and social consequences. In a report to be released later this year, several opportunities are identified which would allow New Zealand to bring innovative solutions and build new businesses based around reuse and recycling of batteries.

17% 

reduction in corporate carbon intensity

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native trees planted through Vector's Urban Forest initiative

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awarded 'Best-first-time performance' from the Carbon Disclosure Project (Aus/NZ)

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convened the Battery Industry Group to address end-of-life battery issues

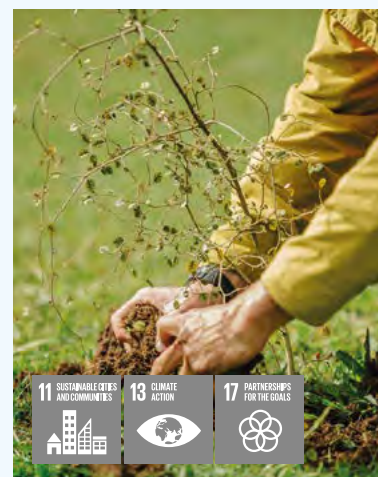
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## Right tree, right place

This year we created the Vector Urban Forest, an initiative that has resulted in 31,000 native trees and other plants being introduced into urban areas of Auckland. The Vector Urban Forest stems from a promise we have made to plant two native trees for every tree we cut down to protect Auckland's power lines. The initiative has two purposes – firstly, to encourage Aucklanders to be smart about planting near power lines, and secondly to help regenerate Auckland's ecosystems which provide key environmental and social benefits.

In establishing urban forests, Vector is aiming to create a future positive legacy for the residents of Auckland too. With 20,000 to 30,000 trees to be planted each year, the initiative will help address the issue of tree inequality within Auckland by targeting areas with lower canopy cover, which generally coincide with lower socioeconomic groups. Vector's Urban Forest will help to create a valuable resource for neighbouring communities.

This initiative is engaging our staff and suppliers also. It's encouraging them to step outside their everyday roles and connect with the natural environment through planting, as well as building relationships across the wider Vector business.



## Greenhouse gas emissions

Our primary emission sources are associated with our gas processing operation at Kapuni, which represents around 83.0% of Vector's total emissions. These emissions increased by 9% in FY19 due to increases in the CO<sub>2</sub> content of the raw gas supplied and a growth in demand for gas in the New Zealand economy.

Our Scope 2 emissions, which relate to our purchased electricity (all sites) and the electricity distribution losses from our Auckland electricity network, decreased by 18% during FY19. This resulted from slightly lower electricity distribution losses and a reduction in the published emissions factor for these emission types. Vector reports on emissions associated with distribution losses, these fluctuate, with demands for different energy sources and the

generation mix for electricity, both of which are outside our control.

We are reporting Scope 3 emissions, which relate to fuel consumption for all our key field service providers, for the first time. The largest source of these Scope 3 emissions is the service delivery vehicles used by our network maintenance crews.

We have successfully addressed some 'low-hanging fruit' in our corporate emissions profile by continuing to transition our corporate fleet to EV or hybrid vehicles. This transition resulted in a 12.6% reduction in associated carbon emissions in our OnGas sales fleet. Other initiatives have included installing solar power on buildings, including some substations, and changing the fuel used in our mobile generator fleet to bio-diesel.

For FY19, we have expanded our carbon reporting to include Scope 1 and 2 data for our PowerSmart business, as well as fuel consumption by our main service providers in New Zealand and Australia (Scope 3). To gain a better understanding of carbon exposure, the business has also identified a number of key products that are high in carbon and has calculated an estimate of embodied emissions.

For the second consecutive year we have successfully exceeded our corporate carbon intensity reduction target, with a 17% reduction compared with a target of 5%. This covers business travel, fleet fuel use and electricity consumption across our offices and is a ratio of tCO<sub>2</sub>e to EBITDA. Since 2017 we have reduced this intensity value by 32% (a reduction of absolute emissions by 30% for these sources).

## TOTAL CARBON BASELINE

	FY17 (adjusted)*	FY18 (adjusted)*	FY19	% Change from FY17 baseline
Scope 1**	341,964	371,084	402,575	+17.72%
Scope 2**	31,599	29,070	23,768	-24.78%
Scope 3**	-	5,869	11,009	

\* Baseline and FY18 Scope 1 and 2 data adjusted due to changes in published emission factors for the relevant reporting year. The emissions associated with our gas distribution network increased 5.67% in FY17 and 3.5% in FY18.

\*\* Scope 3 emission sources include business travel and fuel consumption for our key service providers in each business unit. Our Scope 1 and 2 carbon data is inclusive of the co-generation facility at Kapuni Gas Treatment Plant, which has been apportioned 50% between the two joint venture parties but excludes emissions from E-Co Products Group Limited.



**The Aotearoa Circle**

Mā te Kaitiakitanga ko te Tōnuitanga Prosperity Through Guardianship

## our board



**DAME ALISON PATERSON**  
DNZM, QSO, DCom(hc), FCA, ADistFInstD

INDEPENDENT NON-EXECUTIVE  
CHAIR

—

Appointed on 7 March 2007

Dame Alison Paterson is Chair of the Forestry Industry Safety Council, Kiwi Wealth Group, Te Aupouri Commercial Development Limited and Te Aupouri Fisheries Management Limited. She is also a member of the Health Quality & Safety Commission New Zealand.



**MICHAEL BUCZKOWSKI**  
BE (Electrical), MBA (With Dist)

NON-INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 12 November 2018

Michael Buczkowski is an experienced Trustee and Deputy Chairman of Entrust. He was General Manager Operations at Ricoh from 2007 to 2018 and, prior to that, Managing Director of Hirepool and also Director of Owens Industrial (NZX top 40). His professional experience includes: Consulting Electrical Engineer at Beca, registered Electrical Engineer from 1984 to 2004 as well as international consulting expertise in the energy sector.



**TONY CARTER**  
BE (Hons), ME, MPhil

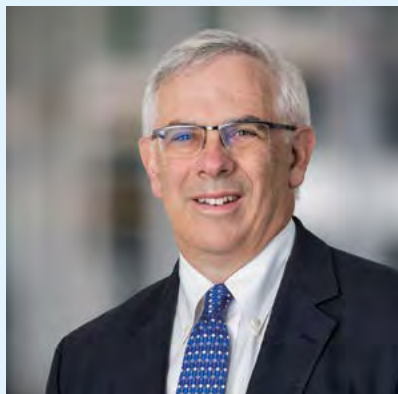
INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 1 May 2019

Tony Carter was managing director of Foodstuffs New Zealand Limited for ten years until his retirement in 2010. Tony is Chair of Fisher & Paykel Healthcare Limited and Air New Zealand Limited\* and is a director of ANZ Bank New Zealand Limited and Fletcher Building Limited\*, and a trustee of the Maurice Carter Charitable Trust.

\* Tony is retiring from the Boards of Air New Zealand and Fletcher Building Limited in September and November respectively and joined the Datacom Group Limited Board on 1 August.



**JONATHAN MASON**  
MBA, MA, BA

INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 10 May 2013

Jonathan Mason has extensive commercial experience. He has worked in financial management positions in the oil and gas, chemicals, forest products and dairy industries in New Zealand and the USA for International Paper, ExxonMobil Corporation, Carter Holt Harvey, Cabot Corporation and Fonterra. Jonathan also has experience as a non-executive director on boards in both New Zealand and the USA and is currently a director of Air New Zealand Limited, New Zealand Assets Management Limited (NZAM), Westpac New Zealand Limited and Zespri Group Limited. He is also an Adjunct Professor of Management at the University of Auckland, focusing on finance.



**DAME PAULA REBSTOCK**

BSc (Econ), Dip & MSc (Econ)

INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 16 April 2019

Dame Paula Rebstock is a leading Auckland-based economist and company director, who was made a Dame Companion of the New Zealand Order of Merit in 2015. She is Chair of ACC, Kiwi Group Holdings Limited, Ngāti Whātua Ōrākei Whai Maia and the New Zealand Defence Force Board and a director of Auckland Transport. Dame Paula is the former Chair of the New Zealand Commerce Commission.



**KAREN SHERRY**

QSM, BA, MA (Hons), LLB (Hons), C.FinstD.

NON-INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 24 July 2006

Karen Sherry is a director and shareholder of the firm Donnell Sherry Limited where she specialises in commercial and trust law. She is a trustee and former Chair of Entrust. Karen is the Chair of Energy Trusts of New Zealand Inc. and a director of the Energy Efficiency and Conservation Authority. She is also a Chartered Fellow of the Institute of Directors in New Zealand.



**BOB THOMSON**

BEng (Electrical), DipBS

INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 18 March 2005

Bob Thomson was chief executive of Transpower Limited and, since 2004, has been an adviser to Energy Trusts of New Zealand Inc. Prior to his appointment at Transpower, he held a range of senior management and engineering positions in the New Zealand Electricity Department and Electricity Corporation of New Zealand Limited. Bob was involved in the reform of the electricity industry, including as a board member of the Electricity Market Company Limited from 1994 to 1998. He is a fellow of Engineering New Zealand (formerly the Institution of Professional Engineers New Zealand).



**BRUCE TURNER**

BE (Hons), ME, BCom

INDEPENDENT NON-EXECUTIVE  
DIRECTOR

—

Appointed on 16 April 2019

Bruce Turner is Director of Central Portfolio Management at Fonterra. He is a highly experienced senior executive who has held leadership roles in the energy industry, both in New Zealand and overseas. Bruce is a member of the Electricity Authority's Security and Reliability Council and an advisory board member at the University of Colorado's JP Morgan Center for Commodities. He was involved in the reform of the electricity industry, as a member of the despatch rules working group, the NZEM Rules Committee, the MARIA governance board and the development of industry common quality standards.

\* Bruce is joining New Zealand Butter Cannery Ltd as a director from 5 August.

## our management team

### **SIMON MACKENZIE**

Grad DipBS (Dist), DipFin, NZCE

GROUP CHIEF EXECUTIVE

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Simon Mackenzie is passionate about the power of technology to transform the energy industry and consumers' lives. As Group Chief Executive, he has expanded and driven Vector's portfolio of businesses to embrace innovative technologies and strategies to deliver efficient, sustainable energy solutions to consumers.

Simon was appointed Vector's Group Chief Executive in 2008. His tertiary qualifications include engineering, finance and business studies, and the Advanced Management Programme at the Wharton School, University of Pennsylvania.



### **KATE BEDDOE**

BA, LLB

CHIEF RISK AND SUSTAINABILITY OFFICER

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Kate Beddoe leads Vector's risk, sustainability and Health, Safety and Environment teams to ensure these areas are aligned and support Vector's strategy and culture. Her areas of responsibility include risk management and assurance, business continuity and crisis management, sustainability and HSE. Kate has over 25 years' experience in leading change in areas such as strategic and operational risk management, sustainability, business continuity, OHSE, insurance, human resources and commercial law. Prior to joining Vector, Kate was with Amcor Limited where she held the global position of Vice-President, Risk and Sustainability and has held management roles with Toyota and Bonlac Foods Ltd (Fonterra). Kate is also a director and Vice-President of RIMS (the Risk Management Society) New Zealand & Pacific Islands and is a faculty contributor to the Cambridge Institute for Sustainability Leadership – Business and Sustainability Executive Leadership Program (Melbourne).



### **ANDRE BOTHA**

BEng, MEng, PG DipBus

CHIEF NETWORKS OFFICER

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Andre Botha is Vector's Chief Networks Officer, accountable for Vector's electricity and gas businesses. He brings 29 years' experience in the energy sector with a proven track record at executive level, locally and internationally.

Andre holds a B.Eng (Electrical) and a M.Eng (Electrical and Electronic) from the University of Pretoria, South Africa, and a PGDipBus (Finance) from the University of Auckland.



### **COLIN DALY**

PG Dip (Operations)

CHIEF EXECUTIVE OFFICER – VECTOR  
POWERSMART

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Initially joining Vector to lead our E-Co Products Group, Colin Daly now leads newly formed Vector PowerSmart which encompasses HRV and PowerSmart Solar operations and, at group level, our strategic marketing, business development, product innovation and technology functions.

Colin brings extensive experience in business and organisational strategy, innovation, customer service and market growth, and has led businesses in B2C, B2B and hybrid channels to market across New Zealand, Australia and the United Kingdom.

He has a proven track record in building high-performing teams, cultural transformation and the delivery of innovative business strategies leading to significant revenue growth. He is also a member of New Zealand's Institute of Directors and a director of Hauraki Marine (Burnsco).





**JASON HOLLINGWORTH**  
MCom (Hons), FCA, CMIInstD  
CHIEF FINANCIAL OFFICER

—

Jason Hollingworth joined Vector as Chief Financial Officer in May 2019. He has over 30 years' experience in a range of senior corporate finance roles including being CFO of public listed pay television company SKY TV, CFO of telecommunications company TelstraClear, Investment Manager for the diversified investment company Ngai Tahu Holdings, Executive Director at Asian private power development company AsiaPower and a Director of corporate advisory firm Southpac Corporation. Jason has a Master of Commerce degree, is a Fellow of the Institute of Chartered Accountants ANZ and a member of the Institute of Directors.



**FIONA MICHEL**  
MBA  
CHIEF PEOPLE OFFICER

—

Fiona Michel is Vector's Chief People Officer, responsible for people, capability and culture. She has worked in the technology, banking, insurance and public sectors for over two decades in New Zealand and overseas. Fiona has won awards in New Zealand and Australia for achievement in human resources, leadership, culture transformation and industrial relations. She has a Master of Business Administration, is an alumnus of Harvard Business School and is completing her Doctorate at the University of Auckland. Professionally, Fiona is a Chartered Fellow of the Chartered Institute of Personnel and Development in the United Kingdom and a Fellow Certified Practitioner HR of the Australian Human Resources Institute.



**NIKHIL RAVISHANKAR**  
BSc BCom (Hons)  
CHIEF DIGITAL OFFICER

—

Nikhil Ravishankar leads Vector's digital team and is responsible for managing the company's digital and IT functions. He is charged with harnessing the performance of both existing and emerging disruptive digital technologies to ensure Vector is able to provide reliable, relevant and innovative services, and compete in the modern customer driven energy marketplace. Prior to joining Vector, Nikhil was with Accenture where he held the position of Managing Director for New Zealand operations and also sat on its Global Advisory Council for Telecommunications and Media practice. Prior to his role at Accenture, he was the Head of Technology Strategy for Spark and was part of their group transformation office.

# governance report

**This section of the annual report is an overview of selected aspects of Vector's corporate governance framework. A copy of Vector's full Corporate Governance Statement for the 2019 financial year, which provides detailed information about the company's framework of corporate governance policies, practices and processes, is available at the corporate governance section of the company's website at [www.vector.co.nz/investors/governance](http://www.vector.co.nz/investors/governance).**

Vector's Board is committed to maintaining high standards of corporate governance, ensuring transparency and fairness, and recognising the interests of our shareholders and other stakeholders.

The Board has an established set of guiding principles that state that the company will:

- Be a leading commercial enterprise in Australasia with a reputation for delivering results through sound strategy;
- Have entrepreneurial agility, being the first to identify opportunities and bring them to market;
- Be a great employer which values knowledge and talent;
- Strive to ensure that everyone who does work for Vector, goes home healthy and safe;
- Deal fairly and honestly with its customers; and
- Be a good corporate citizen.

Vector's governance practices are consistent with the principles in the NZX Corporate Governance Code (2019) (NZX Code), except that Vector has not adopted a formal protocol for responding to takeovers (NZX Code Recommendation 3.6). Because Entrust holds 75.1% of Vector's shares, it is not practically possible for a takeover offer of Vector to be made by a party other than Entrust.

## Roles and responsibilities of the Board and management

The primary objective of the Board is to protect and enhance the value of the company in the interests of the company and its shareholders.

To ensure that Vector's business objectives and strategies are achieved and to deliver value to the company and its shareholders, the Board strives to understand, meet and appropriately balance the expectations of all its stakeholders, including its employees, customers and the wider community.

In carrying out its responsibilities and powers, the Board at all times recognises its overriding responsibility to act honestly, fairly, diligently and in accordance with the law. The Board works to promote and maintain an environment within Vector that establishes these principles as basic guidelines for all of its employees and representatives.

The Group Chief Executive has responsibility for the day-to-day management of Vector and its businesses. He is supported in this function by the Vector executive team. Details of the members of the executive team are set out on pages 38 and 39 of this annual report and in the About Us section of Vector's website ([www.vector.co.nz/about-us/board-executive-team](http://www.vector.co.nz/about-us/board-executive-team)). The Board maintains ultimate responsibility for strategy and control of Vector and its businesses.

## Board membership

Vector's Board comprises experienced directors from diverse backgrounds and who lead the company on behalf of its shareholders and other stakeholders. The directors are committed to maintaining high standards of corporate governance, ensuring transparency and fairness and recognising the interests of our stakeholders.

The Board comprises eight directors, all of whom are non-executive. Biographies are set out on pages 36 and 37 of this report. The current directors possess an appropriate mix of skills, expertise and diversity to enable the Board to discharge its responsibilities and deliver the company's strategic priorities.

## Director independence

The Nominations Committee has responsibility on behalf of the Board for making determinations as to the independence status of all directors. The committee's assessment of independence is guided by the NZX Listing Rules and NZX Code Recommendation 2.4.

The Board has reviewed the position and relationships of all directors in office and considers that six of the non-executive directors are independent. Those directors are Dame Alison Paterson who is Vector's Chair, Jonathan Mason who is Deputy Chair, Tony Carter, Dame Paula Rebstock, Bob Thomson and Bruce Turner. Michael Buczkowski and Karen Sherry represent Vector's majority shareholder Entrust, and are therefore not independent directors.

## Board committees

There are currently four Board committees; an Audit Committee, a Nominations Committee, a Remuneration Committee and a Risk and Assurance Committee. During the year the Regulatory Committee and Sustainability Committee were discontinued following a determination by the Board that it was more appropriate for these matters to be considered by the full Board.

Each committee has a written charter setting out its purpose, objectives, responsibilities, structure and composition, meetings and procedure, authority and reporting.

The members and chairs of each committee are:

COMMITTEE	MEMBERS
Audit Committee	Jonathan Mason (Chair) Alison Paterson Karen Sherry Bob Thomson
Nominations Committee	Alison Paterson (Chair*) Jonathan Mason Karen Sherry Bob Thomson
Remuneration Committee	Bob Thomson (Chair*) Alison Paterson Karen Sherry
Risk and Assurance Committee	Karen Sherry (Chair) Jonathan Mason Alison Paterson Bob Thomson

\* effective 3 December 2018.

## External auditor

The effectiveness, performance and independence of the external auditor is reviewed annually by the Audit Committee.

The company's external auditor is KPMG. Malcolm Downes has been the Audit Partner since 2018 and Laura Youdan has been the Assurance Partner since 2018. KPMG has provided the Board with the required independence declaration for the financial year ended 30 June 2019. The Audit Committee has determined that there are no matters that have affected the auditor's independence.

It is the Board's policy that all non-audit services proposed to be undertaken by the external auditor must be pre-approved by the Audit Committee. The Audit Committee considered and gave its approval for the auditor to undertake certain non-audit related matters. KPMG was paid \$1.2m for services in the financial year to 30 June 2019. Of this sum, \$1.0m was for audit-related services and \$0.2m was for non-audit related services. Further detail is provided on page 64 of this annual report.

## Risk management

At Vector, we recognise that rigorous risk and opportunity management is essential for corporate stability and performance, and supports Vector in its pursuit to create a new energy future. To drive sustainable growth and ensure business resilience, we must anticipate risks to our operations while capitalising on opportunities as they arise.

Vector's enterprise risk management (ERM) framework provides a flexible and purpose-built approach to the application of risk management across Vector and is consistent with the Australian/New Zealand Risk Management Standard "AS/NZS ISO 31000:2009 Risk management – Principles and Guideline". Our risk management processes and tools are embedded within our business operations to drive consistent, effective and accountable decision-making.

Consistent with the "Three Lines of Defence" principle, all Vector people are responsible for applying Vector's ERM framework within their individual roles and are encouraged to proactively identify, analyse, escalate and treat risks.

This risk mindset has been implemented through:

- Acknowledgement of risk management's value at Executive and Board level;
- Relatable and easily applied risk management policies, processes and tools;
- Integration of risk champions throughout the business; and
- Continuous training and education, both formal and informal.

Vector regularly monitors the changing business landscape, assessing the influence of macro-trends on Vector's operating environment. These perspectives, along with material risks from individual business unit risk profiles, support the identification of key group wide risks and opportunities.

To further promote accountability and transparency, key business areas formally present their material risks to the Risk and Assurance Committee on an annual basis. These material risks are assessed against a group wide set of criteria covering both consequence and likelihood, as defined in Vector's Group Risk Assessment Matrix.

## Our key and emerging risks

### STRATEGIC RISKS

● Business evolution and adaptation	Changing customer needs and expectations; managing the balance of regulated and non-regulated revenues effectively
● Rapid digitalisation and technology changes	Appropriately innovating and keeping pace with technological advancements as they emerge
● Product/service commercialisation	Delivery of new revenue streams in a dynamic marketplace, needing a strong coordinated approach
● Portfolio management	Delivery of acceptable returns in the medium term, through actively managing the investment portfolio and capturing growth opportunities
● Political and regulatory uncertainty	Ongoing changes in the New Zealand and Australian political and regulatory landscape; ensuring the regulatory environment keeps pace with technological and operational change
● Accelerated climate change adaptation and mitigation	Exposure of network assets to potential changes in weather trends and increased severe weather events; transition to a net zero emissions economy (presents both risks and opportunities for the business)
● Data governance and management	Heightened focus on ensuring organisations appropriately manage, use and safeguard data

### OPERATING RISKS

● Cyber security	Vector's IT/OT environment being compromised, leading to disruption to critical services or confidential information being released, modified or deleted
● Significant HSE incident	Safety Always is fundamental to Vector's operations, to protect our people, contractors and the wider public
● Core business operational failure	Strong business continuity practices to minimise disruption from the unlikely event of a significant operational incident at a critical site
● Compliance with quality standards	External factors, resourcing and technical constraints and Auckland's ongoing growth; challenging Vector's ability to achieve SAIDI and SAIFI targets
● Reputational damage	The use, speed and hyper-transparency of social media, coupled with increasing engagement with customers

### EMERGING RISKS

● Trust and ethical conduct perceptions	Heightened focus on organisational trust, transparency and conduct
● Talent, capability and capacity	Resourcing capability and capacity due to the volume and speed of change, together with evolving workforce requirements and skillsets
● Growing value of intangible assets	Increasing role of intangibles in supporting and driving business value (presents both long-term opportunities and risks)

● ENVIRONMENTAL RISKS

● TECHNOLOGICAL RISKS

● ECONOMIC RISKS

● SOCIETAL RISKS

● OPERATIONAL RISKS

### Internal audit

Vector's Group Internal Audit function provides independent and objective assurance on the effectiveness of governance, risk management and internal controls across all business operations. The team follows a co-sourced model, drawing on both in-house and external expertise, and has unrestricted access to all Vector staff, records and third parties. The team liaises closely with KPMG, as Vector's external auditor, to share the outcomes of the internal audit programme to the extent that they are relevant to the financial statements.

### Ethical and responsible behaviour

The Code of Conduct and Ethics outlines the responsibilities of Vector's people and explains the standards of conduct and ethics.

*At Vector our vision and values are the foundation of our business; they reflect who we are and how we do business. Together as a team, as well as with our customers, partners and the wider community, each and every one of us*

*has an important role to play in bringing our values to life.*

*The purpose of our Code is to provide a framework for ethical decision making. However, the Code is not a substitute for good judgment. As Vector employees we strive to carry out our work in accordance with our values, and this Code should be used as a practical set of guiding principles to help us make decisions in our daily jobs.*

### Diversity and inclusion

The Board's commitment to creating and maintaining both a diverse workforce and an inclusive workplace for all employees is reflected in its Diversity and Inclusion Policy. A Diversity Council, made up of senior management representatives, provides governance over the implementation of the Policy. The Diversity Council also provides guidance and direction in relation to the activity of the Diversity Committee, which consists of employee representatives from across the business.

Vector has sought to establish measurable objectives for achieving

diversity, including gender diversity, and its annual assessment of its diversity objectives for FY19 and the company's progress towards achieving these objectives are set out on pages 32 to 33 of this annual report.

### Investor engagement

Vector's Board is committed to maintaining open and transparent communications with investors and other stakeholders and it supports a programme for two-way engagement with shareholders, debt investors, the media and the broader investment community.

Annual and interim reports, NZX releases, quarterly reports on operational performance, governance policies and charters and a wide variety of corporate information are posted on Vector's website. Vector conducts detailed market briefings in conjunction with the release of the annual and interim financial results. Transcripts of the briefings are available at the annual reports page of the Investor section of the website.



## Introducing the Audit-Bot

The core purpose of the internal audit function is to add value and improve the operations of the organisation. However, the exponential pace of change in today's business environment means that the traditional assurance model is unable to meet the shifting needs of our stakeholders and is ill-equipped to address emerging risks.

At Vector, we have recognised the role that emerging technologies and innovation will play in the future of internal audit. Over the course of the year, the internal audit function has been automating controls testing and exception reporting using data analytics and robotic automation with cognitive intelligence technologies.

This has enabled a move from manual, point in time sample based testing towards an automated and continuous assurance model that is able to analyse the whole data population. For example the audit-bot can now review all business expenditure and identify those that may have been approved outside of delegated authority levels and require further investigation.

Using cognitive technologies, the audit-bot's capability has also been extended to look at external risk factors such as reputation through tracking of social networking and online news media. This supplements existing external controls by Vector supporting early detection via continuous monitoring.

This innovation delivered by the audit-bot has also been transformational in enabling greater assurance across the business, increased operational efficiency, extended audit coverage, improved effectiveness of controls and continuous monitoring of controls.

Over the coming year internal audit will continue to bolster its armoury with more emerging and disruptive technologies, such as artificial intelligence and machine learning. This will improve our ability to anticipate and efficiently respond to stakeholder needs, address the challenge of emerging risks, improve operations and assist in safeguarding the business as management pursues new methods of creating and delivering value.

# Entrust, majority shareholder of Vector



**Community trust Entrust was formed more than 25 years ago to ensure that stewardship over Auckland's electricity network remains in the hands of Aucklanders. Entrust acts in the interests of its 333,000 families and businesses in Auckland, Manukau, northern Papakura and eastern Franklin. Entrust protects the \$2.8 billion<sup>1</sup> investment in Vector through its role in the appointment of directors to Vector's Board.**

*“Entrust, in the community since 1993”*



### Here for the community

Entrust is proud of the work it has undertaken for its beneficiaries and all Aucklanders.

### Advocacy on behalf of energy consumers

Entrust regularly advocates on behalf of energy consumers on important matters such as the Electricity Pricing Review and transmission pricing.



### Enabling projects with direct benefit

Entrust has an agreement with Vector that requires an average of \$10.5 million to be invested in projects in the Entrust District every year.

In the year to 30 June 2019, key undergrounding projects have been undertaken in Franklin Road (Freemans Bay), Station Road (Otahuhu), Alba Road (Greenlane), St Georges Road (Avondale), Sarsfield Street (Herne Bay), Dominion Road (Mt Eden), Rahiri Road (Mt Eden), and Taurarua Terrace and Windsor Street (Parnell).

*In September 2018, each of Entrust's 333,000 beneficiaries received a \$350 dividend – that's more than \$115 million going straight into the Auckland economy.*



Entrust's agreement with Vector also results in other projects on the Vector network which have a direct benefit to Entrust beneficiaries. This year these include procurements of mobile community generators to supply power during periods of extended maintenance on Vector's network.

### Passing on a share of Vector's profits to beneficiaries

In addition, Vector's growth and operating performance enables Entrust to distribute an annual dividend to beneficiaries through its 75.1% stake in Vector.

# OVER 135

undergrounding projects have been completed since the programme began, in Auckland, Manukau and northern Papakura



- WILLIAM CAIRNS (CHAIR)
- MICHAEL BUCZKOWSKI (DEPUTY CHAIR)
- ALASTAIR BELL
- PAUL HUTCHISON
- KAREN SHERRY

1. Based on recent Vector NZX quoted share price.

# joint ventures and investments

Vector has investments in a number of businesses that complement our network businesses and strengthen our capabilities in the energy services field.



50%

## KAPUNI ENERGY JOINT VENTURE

Vector Kapuni Limited (a wholly owned subsidiary of Vector) holds a 50% interest in an unincorporated joint venture that operates a cogeneration plant situated at the Kapuni Gas Treatment Plant, producing electricity and steam for the gas treatment plant and other customers.



50%

## TREESCAPE

Vector holds a 50% shareholding in Tree Scape Limited, one of Australasia's largest specialist tree and vegetation management companies, with depots throughout New Zealand and in Queensland and New South Wales. Treescape employs more than 600 staff. Its customers include councils, utilities, government agencies, construction companies and developers. Treescape implements Vector's planned vegetation management programme, which plays a major role in minimising the impact of severe weather on Vector's electricity network.

[www.treescape.co.nz](http://www.treescape.co.nz)



60.25%

## LIQUIGAS

NGC Holdings Limited (a wholly owned subsidiary of Vector) holds a 60.25% shareholding in Liquigas Limited, New Zealand's leading company for tolling, storage and distribution of bulk LPG. Liquigas has staff and depots in Auckland, New Plymouth, Christchurch and Dunedin.

[www.liquigas.co.nz](http://www.liquigas.co.nz)



8.1%

## mPREST

Vector holds a 8.1% shareholding in mPrest Systems (2003) Limited. The mPrest technology allows companies to better monitor, analyse, and control energy networks and connect traditional infrastructure like electricity lines and substations with new technology like solar and battery energy solutions.

[www.mprest.com](http://www.mprest.com)

# operating statistics

YEAR ENDED 30 JUNE	2019	2018
<b>ELECTRICITY</b>		
Customers <sup>1,4</sup>	571,125	563,076
New connections	11,000	11,135
Net movement in customers <sup>2</sup>	8,049	7,976
Volume distributed (GWh)	8,410	8,442
Networks length (km) <sup>1</sup>	18,884	18,694
SAIDI (minutes) <sup>3</sup>		
Normal operations	198.2	226.2
Major network events	377.2	41.3
<b>Total</b>	<b>575.4</b>	<b>267.5</b>
<b>GAS DISTRIBUTION</b>		
Customers <sup>1,4</sup>	111,642	109,229
New connections	3,322	3,165
Net movement in customers <sup>2</sup>	2,413	2,559
Volume distributed (PJ)	14.4	14.5
<b>GAS TRADING</b>		
Natural gas sales (PJ) <sup>5</sup>	16.1	18.3
Gas liquid sales (tonnes) <sup>6</sup>	79,170	77,656
9kg LPG bottles swapped <sup>7</sup>	658,159	652,859
Liquigas LPG tolling (tonnes) <sup>8</sup>	152,206	183,540
<b>TECHNOLOGY</b>		
Electricity: smart meters <sup>1,9</sup>	1,558,291	1,405,936
Electricity: legacy meters <sup>1</sup>	76,367	86,505
Electricity: prepay meters <sup>1</sup>	39	62
Electricity: time-of-use meters <sup>1</sup>	12,473	12,327
Gas meters <sup>1</sup>	228,027	224,770
Data management and service connections <sup>1</sup>	8,824	8,810

1. As at 30 June.

2. Net number of customers added during the 12-month period, includes disconnected, reconnected and decommissioned ICPs.

3. Regulatory year - 12 months to 31 March (audited).

4. Billable ICPs.

5. Excludes gas sold as gas liquids. These sales are included within the gas liquids sales tonnages.

6. Total of retail and wholesale LPG and natural gasoline. Includes wholesale volumes from Kapuni and retail volumes via OnGas. Product sold from Kapuni to OnGas is counted twice for the purpose of this metric.

7. Number of 9kg LPG bottles swapped and sold during the year.

8. Product tolled in Taranaki and further tolled in the South Island is counted twice for the purpose of this metric.

9. The number of smart meters deployed as at 30 June 2019 includes 156,713 meters managed but not owned by Vector (30 June 2018: 135,284).

## FIVE YEAR FINANCIAL PERFORMANCE

YEAR ENDED 30 JUNE (\$ MILLION)	2019	2018	2017	2016	2015
<b>PROFIT OR LOSS – CONTINUING OPERATIONS<sup>1</sup></b>					
Total income	1,318.6	1,328.4	1,226.7	1,144.6	1,153.4
Adjusted EBITDA	485.8	470.1	474.4	473.0	451.9
Depreciation and amortisation	(246.8)	(225.9)	(199.6)	(194.6)	(179.0)
Adjusted EBIT	239.0	244.2	274.8	278.4	272.9
Net profit – continuing operations	84.0	149.8	168.9	58.9	88.3
<b>PROFIT OR LOSS – DISCONTINUED OPERATIONS</b>					
Total income	-	-	-	110.7	140.6
Adjusted EBITDA	-	-	-	75.3	88.5
Depreciation and amortisation	-	-	-	(5.8)	(16.2)
Adjusted EBIT	-	-	-	69.5	72.3
<b>Net profit – including discontinued operations</b>	<b>84.0</b>	<b>149.8</b>	<b>168.9</b>	<b>274.4</b>	<b>149.4</b>
<b>BALANCE SHEET</b>					
Total equity	2,349.4	2,457.9	2,448.3	2,398.3	2,298.6
Total assets	6,061.0	5,808.0	5,574.6	5,603.0	6,123.0
Economic net debt (borrowings net of cash and short-term deposits)	2,627.5	2,377.9	2,220.1	1,932.9	2,745.1
<b>CASH FLOW</b>					
Operating cash flow	348.1	389.9	335.7	352.1	369.2
Capital expenditure	(418.4)	(386.8)	(354.3)	(340.1)	(311.8)
Dividends paid	(164.1)	(163.9)	(161.0)	(159.2)	(155.4)
<b>KEY FINANCIAL MEASURES</b>					
Adjusted EBITDA/total income	36.8%	35.4%	38.7%	41.3%	39.2%
Adjusted EBIT/total income	18.1%	18.4%	22.4%	24.3%	23.7%
Equity/total assets	38.8%	42.3%	43.9%	42.8%	37.5%
Return on assets (adjusted EBITDA/assets)	8.0%	8.1%	8.5%	8.4%	7.4%
Gearing <sup>2</sup>	52.2%	48.8%	47.1%	43.7%	53.6%
Net interest cover – continuing ops (adjusted EBIT/net finance costs) (times)	1.8	1.8	2.0	1.6	1.5
Earnings (NPAT) per share (cents) including discontinued activities	8.3	14.8	16.7	27.2	14.6
Dividends declared, cents per share (fully imputed)	16.50	16.25	16.00	15.75	15.50

1. Prepared on a continuing basis, excluding contribution from gas transmission and non-Auckland gas distribution for all periods presented.

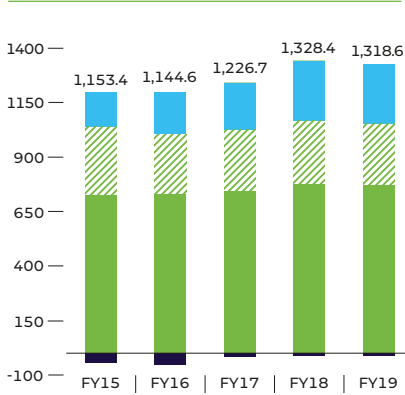
2. Gearing is defined as economic net debt to economic net debt plus adjusted equity. Adjusted equity means total equity adjusted for hedge reserves.

**ADJUSTED EBITDA** (continuing operations)

\$ MILLION

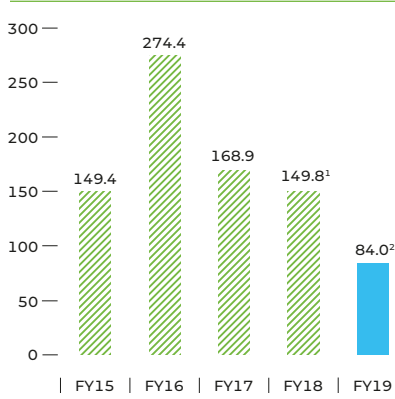


**TOTAL INCOME**  
(continuing operations)  
\$ MILLION



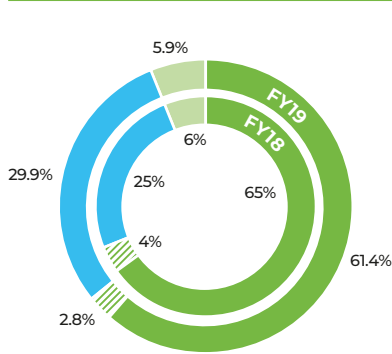
REGULATED NETWORKS GAS TRADING  
TECHNOLOGY CORPORATE  
INTER-SEGMENT

**NET PROFIT**  
(including discontinued operations)  
\$ MILLION



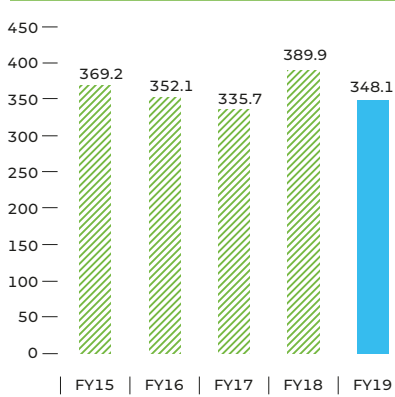
1. FY18 includes a \$16.7 million one-off tax gain.  
2. FY19 includes a \$46.6 million non-cash impairment.

**CAPITAL EXPENDITURE**

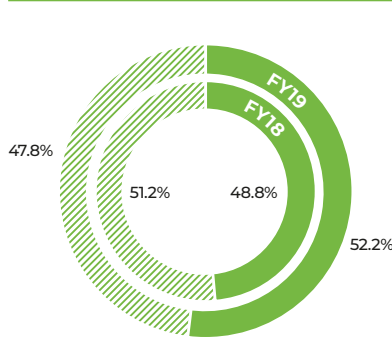


REGULATED NETWORKS GAS TRADING  
TECHNOLOGY CORPORATE

**OPERATING CASH FLOWS**  
(including discontinued operations)  
\$ MILLION



**SOURCE OF FUNDING - GEARING**  
AS AT 30 JUNE



ECONOMIC NET DEBT ADJUSTED EQUITY

# Non-GAAP financial information

Vector's standard profit measure prepared under New Zealand Generally Accepted Accounting Practice (GAAP) is net profit. Vector has used non-GAAP profit measures when discussing financial performance in this document. The directors and management believe that these measures provide useful information as they are used internally to evaluate the performance of business units, to establish operational goals and to allocate resources. For a more comprehensive discussion on the use of non-GAAP profit measures, please

refer to the policy 'Reporting non-GAAP profit measures' available on our website (vector.co.nz).

Non-GAAP profit measures are not prepared in accordance with New Zealand International Reporting Standards (NZ IFRS) and are not uniformly defined; therefore, the non-GAAP profit measures reported in this document may not be comparable with those that other companies report and should not be viewed in isolation from or considered as a substitute for measures reported by Vector in accordance with NZ IFRS.

## DEFINITIONS

<b>EBITDA:</b>	Earnings before interest, taxation, depreciation and amortisation from continuing operations
<b>Adjusted EBITDA:</b>	EBITDA from continuing operations adjusted for fair value changes, associates, impairments, capital contributions, and significant one-off gains, losses, revenues and/or expenses.

## GAAP TO NON-GAAP RECONCILIATION

### YEAR ENDED 30 JUNE (\$ MILLION)

Group EBITDA and adjusted EBITDA from continuing operations	2019	2018
<b>Reported net profit for the period (GAAP)</b>	<b>84.0</b>	149.8
Add back: net interest costs	133.3	130.7
Add back: tax (benefit)/expense	52.5	36.8
Add back: depreciation and amortisation	246.8	225.9
<b>EBITDA</b>	<b>516.6</b>	543.2
<i>Adjusted for:</i>		
Associates (share of net (profit)/loss)	(0.6)	1.5
Capital contributions	(79.3)	(71.5)
Fair value change on financial instruments	2.5	(3.1)
Impairment	46.6	-
<b>Adjusted EBITDA</b>	<b>485.8</b>	470.1

YEAR ENDED 30 JUNE (\$ MILLION)	2019			2018		
	REPORTED SEGMENT EBITDA	LESS CAPITAL CONTRIBUTIONS	SEGMENT ADJUSTED EBITDA	REPORTED SEGMENT EBITDA	LESS CAPITAL CONTRIBUTIONS	SEGMENT ADJUSTED EBITDA
<b>Segment adjusted EBITDA</b>						
Technology	142.3	(0.3)	142.0	131.8	(1.3)	130.5
Gas Trading	31.3	-	31.3	34.4	-	34.4
<b>Unregulated segments</b>	<b>173.6</b>	<b>(0.3)</b>	<b>173.3</b>	<b>166.2</b>	<b>(1.3)</b>	<b>164.9</b>
<b>Regulated segment</b>	<b>446.0</b>	<b>(79.0)</b>	<b>367.0</b>	<b>428.8</b>	<b>(70.2)</b>	<b>358.6</b>
<b>Corporate</b>	<b>(54.5)</b>	<b>-</b>	<b>(54.5)</b>	<b>(53.4)</b>	<b>-</b>	<b>(53.4)</b>
<b>TOTAL</b>	<b>565.1</b>	<b>(79.3)</b>	<b>485.8</b>	<b>541.6</b>	<b>(71.5)</b>	<b>470.1</b>



financials

# financial statements

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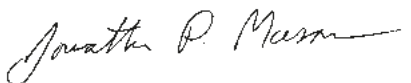
## 2019 FINANCIAL STATEMENTS

These financial statements for the year ended 30 June 2019 are dated 22 August 2019, and signed for and on behalf of Vector Limited by:



**Director**

22 August 2019



**Director**

22 August 2019

And management of Vector Limited by:



**Group Chief Executive**

22 August 2019



**Chief Financial Officer**

22 August 2019

## PROFIT OR LOSS

for the year ended 30 June

	NOTE	2019 \$M	2018 \$M
Revenue	5	<b>1,318.6</b>	1,328.4
Operating expenses	6	<b>(753.5)</b>	(786.8)
Depreciation and amortisation		<b>(246.8)</b>	(225.9)
Interest costs (net)	7	<b>(133.3)</b>	(130.7)
Fair value change on financial instruments	8	<b>(2.5)</b>	3.1
Associates (share of net profit/(loss))	12.2	<b>0.6</b>	(1.5)
Impairment	13.1	<b>(46.6)</b>	-
<b>Profit/(loss) before income tax</b>		<b>136.5</b>	186.6
Income tax benefit/(expense)	9	<b>(52.5)</b>	(36.8)
<b>Net profit/(loss) for the period</b>		<b>84.0</b>	149.8
<b>Net profit/(loss) for the period attributable to</b>			
Non-controlling interests		<b>1.1</b>	1.6
Owners of the parent		<b>82.9</b>	148.2
<b>Basic and diluted earnings per share (cents)</b>	22.3	<b>8.3</b>	14.8

## OTHER COMPREHENSIVE INCOME

for the year ended 30 June

	NOTE	2019 \$M	2018 \$M
<b>Net profit/(loss) for the period</b>		<b>84.0</b>	149.8
<b>Other comprehensive income net of tax</b>			
<i>Items that may be re-classified subsequently to profit or loss:</i>			
Net change in fair value of hedge reserves	19	(21.0)	8.9
Translation of foreign operations		(2.1)	(0.3)
<i>Items that will not be re-classified to profit or loss:</i>			
Fair value change on financial asset	12.4	0.6	1.1
<b>Other comprehensive income for the period net of tax</b>		<b>(22.5)</b>	9.7
<b>Total comprehensive income for the period net of tax</b>		<b>61.5</b>	159.5
<b>Total comprehensive income for the period attributable to</b>			
Non-controlling interests		1.1	1.6
Owners of the parent		60.4	157.9

# BALANCE SHEET

as at 30 June

	NOTE	2019 \$M	2018 \$M
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	21.3	27.6	27.9
Trade and other receivables	11	100.1	104.5
Contract assets	5.2	105.2	105.5
Inventories		8.4	11.6
Intangible assets		1.9	1.0
Income tax	9	52.4	84.7
<b>Total current assets</b>		<b>295.6</b>	<b>335.2</b>
<b>NON-CURRENT ASSETS</b>			
Receivables	11	1.7	0.1
Derivatives	19	109.3	56.6
Investment in associate	12.2	8.7	8.1
Other investments	12.4	15.6	15.0
Intangible assets	13	1,354.9	1,397.2
Property, plant and equipment (PPE)	14	4,184.6	3,995.7
Right of use assets (ROU)	15.1	38.1	–
Income tax	9	52.3	–
Deferred tax	10	0.2	0.1
<b>Total non-current assets</b>		<b>5,765.4</b>	<b>5,472.8</b>
<b>Total assets</b>		<b>6,061.0</b>	<b>5,808.0</b>
<b>CURRENT LIABILITIES</b>			
Trade and other payables	16	200.1	214.1
Provisions	17	17.4	24.4
Borrowings	18	481.3	224.2
Derivatives	19	4.9	65.8
Contract liabilities	5.2	48.4	44.4
Lease liabilities	15.2	7.2	–
Income tax	9	0.8	0.7
<b>Total current liabilities</b>		<b>760.1</b>	<b>573.6</b>
<b>NON-CURRENT LIABILITIES</b>			
Payables	16	1.8	0.2
Provisions	17	27.4	22.6
Borrowings	18	2,279.7	2,171.1
Derivatives	19	78.2	51.2
Contract liabilities	5.2	43.9	44.7
Lease liabilities	15.2	32.7	–
Deferred tax	10	487.8	486.7
<b>Total non-current liabilities</b>		<b>2,951.5</b>	<b>2,776.5</b>
<b>Total liabilities</b>		<b>3,711.6</b>	<b>3,350.1</b>
<b>EQUITY</b>			
Equity attributable to owners of the parent		2,332.4	2,440.4
Non-controlling interests in subsidiaries		17.0	17.5
<b>Total equity</b>		<b>2,349.4</b>	<b>2,457.9</b>
<b>Total equity and liabilities</b>		<b>6,061.0</b>	<b>5,808.0</b>
Net tangible assets per share (cents)	22.3	97.8	104.2
Gearing ratio (%)	22.3	52.2	48.8

## CASH FLOWS

for the year ended 30 June

	NOTE	2019 \$M	2018 \$M
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Receipts from customers		1,316.5	1,312.2
Interest received		1.1	2.0
Dividends received		-	0.5
Payments to suppliers and employees		(765.3)	(736.5)
Interest paid		(142.6)	(127.0)
Income tax paid		(61.6)	(61.3)
<b>Net cash flows from/(used in) operating activities</b>	21.1	<b>348.1</b>	389.9
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Proceeds from sale of PPE and software intangibles		0.6	0.4
Proceeds from sale of investments		-	7.8
Purchase and construction of PPE and software intangibles		(418.4)	(386.8)
Acquisition of businesses		(8.0)	(1.7)
Post-completion payment for acquisition of businesses		-	(1.4)
Other investments		(1.6)	(14.0)
<b>Net cash flows from/(used in) investing activities</b>		<b>(427.4)</b>	(395.7)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Proceeds from borrowings		535.0	570.8
Repayment of borrowings		(285.6)	(400.0)
Dividends paid		(164.1)	(163.9)
Sale of treasury shares		-	14.0
Lease liabilities payments		(6.2)	-
Other financing cash flows		(0.1)	(2.1)
<b>Net cash flows from/(used in) financing activities</b>	21.2	<b>79.0</b>	18.8
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>(0.3)</b>	13.0
Cash and cash equivalents at beginning of the period		27.9	14.9
<b>Cash and cash equivalents at end of the period</b>		<b>27.6</b>	27.9
<b>Cash and cash equivalents comprise:</b>			
Bank balances and on-call deposits		22.0	19.6
Short-term deposits		5.6	8.3
	21.3	<b>27.6</b>	27.9

## CHANGES IN EQUITY

for the year ended 30 June

	NOTE	ISSUED SHARE CAPITAL \$M	TREASURY SHARES \$M	HEDGE RESERVES \$M	OTHER RESERVES \$M	RETAINED EARNINGS \$M	NON- CONTROLLING INTERESTS \$M	TOTAL EQUITY \$M
<b>Balance at 30 June 2017</b>		875.0	(9.2)	(49.0)	0.8	1,613.0	17.7	2,448.3
Net profit/(loss) for the period		-	-	-	-	148.2	1.6	149.8
Other comprehensive income		-	-	8.9	0.8	-	-	9.7
<b>Total comprehensive income</b>		-	-	8.9	0.8	148.2	1.6	159.5
Dividends		-	-	-	-	(162.1)	(1.8)	(163.9)
Sale of treasury shares		5.0	9.0	-	-	-	-	14.0
<b>Total transactions with owners</b>		5.0	9.0	-	-	(162.1)	(1.8)	(149.9)
<b>Reclassification on sale of financial asset</b>		-	-	-	(1.9)	1.9	-	-
<b>Balance at 30 June 2018</b>		<b>880.0</b>	<b>(0.2)</b>	<b>(40.1)</b>	<b>(0.3)</b>	<b>1,601.0</b>	<b>17.5</b>	<b>2,457.9</b>
Impact of adopting NZ IFRS 15 at 1 July 2018		-	-	-	-	(6.0)	-	(6.0)
<b>Adjusted balance at 1 July 2018</b>		<b>880.0</b>	<b>(0.2)</b>	<b>(40.1)</b>	<b>(0.3)</b>	<b>1,595.0</b>	<b>17.5</b>	<b>2,451.9</b>
Net profit/(loss) for the period		-	-	-	-	82.9	1.1	84.0
Other comprehensive income		-	-	(21.0)	(1.5)	-	-	(22.5)
<b>Total comprehensive income</b>		-	-	(21.0)	(1.5)	82.9	1.1	61.5
Dividends	3	-	-	-	-	(162.5)	(1.6)	(164.1)
Employee share purchase scheme transactions		-	(0.2)	-	0.3	-	-	0.1
<b>Total transactions with owners</b>		-	(0.2)	-	0.3	(162.5)	(1.6)	(164.0)
<b>Balance at 30 June 2019</b>		<b>880.0</b>	<b>(0.4)</b>	<b>(61.1)</b>	<b>(1.5)</b>	<b>1,515.4</b>	<b>17.0</b>	<b>2,349.4</b>

# notes to the financial statements

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Note 25	<b>Events after balance date</b>	91

## 1. Company information

Reporting entity	<p>Vector Limited is a company incorporated and domiciled in New Zealand, registered under the Companies Act 1993 and listed on the NZX Main Board (NZX). The company is an FMC reporting entity for the purposes of Part 7 of the Financial Markets Conduct Act 2013. The financial statements comply with this Act.</p> <p>The financial statements presented are for Vector Limited Group (“Vector” or “the group”) as at, and for the year ended 30 June 2019. The group comprises Vector Limited (“the parent”), its subsidiaries, and its investments in associates, financial assets and joint arrangements.</p> <p>In accordance with the Financial Markets Conduct Act 2013, where a reporting entity prepares consolidated financial statements, parent company disclosures are not required.</p> <p>Vector Limited is a 75.1% owned subsidiary of Entrust which is the ultimate parent entity for the group.</p> <p>The primary operations of the group are electricity and gas distribution, natural gas and LPG sales, gas processing, metering, telecommunications and new energy solutions.</p>
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## 2. Summary of significant accounting policies

Statement of compliance	<p>The financial statements comply with New Zealand equivalents to International Financial Reporting Standards (NZ IFRS), and other applicable Financial Reporting Standards, as appropriate for Tier 1 for-profit entities. They also comply with International Financial Reporting Standards.</p>
Basis of preparation	<p>The financial statements have been prepared in accordance with New Zealand Generally Accepted Accounting Practice (NZ GAAP) as appropriate to Tier 1 for-profit entities.</p> <p>They are prepared on the historical cost basis except for the following items, which are measured at fair value:</p> <ul style="list-style-type: none"><li>— the identifiable assets and liabilities acquired in a business combination; and</li><li>— certain financial instruments, as disclosed in the notes to the financial statements.</li></ul> <p>The presentation currency is New Zealand dollars (\$). All financial information has been rounded to the nearest 100,000, unless otherwise stated.</p> <p>The statements of profit or loss, other comprehensive income, cash flows and changes in equity are stated exclusive of GST. All items in the balance sheet are stated exclusive of GST except for trade receivables and trade payables, which include GST.</p>
Significant accounting policies, estimates and judgements	<p>Vector’s management is required to make judgements, estimates, and apply assumptions that affect the amounts reported in the financial statements. They have based these on historical experience and other factors they believe to be reasonable. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised and in the future periods affected.</p> <p>Accounting policies, and information about judgements, estimations and assumptions that have had a significant effect on the amounts recognised in the financial statements are disclosed in the relevant notes as follows:</p> <ul style="list-style-type: none"><li>— Revenue recognition (Note 5)</li><li>— Consolidation basis and classification and valuation of investments (Note 12)</li><li>— Impairment and valuation of goodwill (Note 13)</li><li>— Property, plant and equipment: valuation and classification of expenses (Note 14)</li><li>— Provisions (Note 17)</li><li>— Borrowings: measurement bases (Note 18)</li><li>— Valuation of derivatives (Note 19)</li><li>— Financial risk management – impairment of financial instruments (Note 20)</li></ul>

## 2. Summary of significant accounting policies CONTINUED

New accounting standards adopted

On 1 July 2018 the following accounting standards were adopted:

- i) NZ IFRS 15: *Revenue from Contracts with Customers*
- ii) NZ IFRS 16: *Leases*

### **NZ IFRS 15: Revenue from Contracts with Customers**

NZ IFRS 15 *Revenue from Contracts with Customers* provides an entity with guiding principles on when, how, and how much revenue to recognise in an entity's financial statements in any given reporting period. The standard and its subsequent amendment replace all existing IFRS guidance for revenue recognition. The most relevant to Vector are: NZ IAS 18 *Revenue*, NZ IAS 11 *Construction Contracts*, NZ IFRIC 8 *Transfers of Assets from Customers*. Refer to Note 5 for details of accounting policies and impact from adoption of NZ IFRS 15.

### **NZ IFRS 16: Leases**

The group has elected to early adopt NZ IFRS 16 *Leases*, effective from 1 July 2018. The group applied NZ IFRS 16 using the modified retrospective transition approach. Comparative information and opening equity are therefore not restated and continue to be reported under NZ IAS 17 *Leases* and IFRIC 4 *Determining whether an arrangement contains a lease*. Refer to Note 15 for details of accounting policies and impact from adoption of NZ IFRS 16.

New standard effective and previously adopted

### **NZ IFRS 9: Financial Instruments**

NZ IFRS 9 *Financial Instruments* is mandatory for the group effective from 1 July 2018.

The group has previously completed the adoption of NZ IFRS 9 by electing to early adopt NZ IFRS 9 (2013) *Financial Instruments* in the year ended 30 June 2015 (initial application 1 July 2014) and NZ IFRS 9 (2014) *Financial Instruments* in the year ended 30 June 2017 (initial application 1 July 2016).

## 3. Significant transactions and events

Significant transactions and events that have occurred during the year ending 30 June 2019:

The Commerce Commission

### **Over-recovery of electricity revenue**

On 7 July 2017, Vector and the Commerce Commission ("the Commission") agreed the settlement of an over-recovery of electricity revenue by Vector during the regulatory years ended 31 March 2014 and 31 March 2015.

The settlement is effected through a \$13.9 million (including accumulated interest of \$3.8 million) price adjustment for the regulatory years ending 31 March 2019 and 31 March 2020, impacting the group's reported revenues and interest costs for the financial years ended 30 June 2018 (3 months), and financial years ending 30 June 2019 (12 months) and 2020 (9 months).

The impact in the current year ended 30 June 2019 is a \$4.8 million (2018: \$1.0 million) decrease in revenue and a \$1.7 million (2018: \$0.4 million) increase in interest costs.

### **Breaches of electricity network quality measures**

Vector have breached the electricity network reliability targets, set by the Commission, for the regulatory years ended 31 March 2017, 2018 and 2019. The breaches are in large part expected results from Vector's work safety policy to perform electricity line work in a de-energised state. The policy was effective for a full year in 2018 and 2019, and a portion of 2017.

Should the Commission seek penalty charges Vector will face up to \$15.0 million in liability (\$5.0 million per year of breach). For similar breaches in regulatory years 2015 and 2016, the Commission brought a total penalty charge of \$3.6 million.

### 3. Significant transactions and events

**CONTINUED**

Debt programme	<p>On 14 January 2019, the group repaid \$285.6 million (GBP \$115.0 million) of medium-term notes using existing facilities.</p> <p>On 27 May 2019, the group raised \$250.0 million of unsubordinated bonds with a fixed rate of 3.45% maturing on 27 May 2025.</p> <p>During the year ended 30 June 2019, the group drew down a net of \$285.0 million (2018: \$15.0 million) from the bank facilities.</p>
Dividends	<p>Vector Limited's final dividend for the year ended 30 June 2018 of 8.00 cents per share was paid on 14 September 2018, with a supplementary dividend of 1.41 cents per non-resident share. The total dividend paid was \$80.0 million.</p> <p>Vector Limited's interim dividend for the year ended 30 June 2019 of 8.25 cents per share was paid on 11 April 2019, with a supplementary dividend of 1.46 cents per non-resident share. The total dividend paid was \$82.5 million.</p> <p>Liquigas Limited, a subsidiary of the group, paid an interim dividend in December 2018 of \$0.6 million and a final dividend in June 2019 of \$1.0 million to the company's non-controlling interests.</p>

### 4. Segment information

Segments	<p>Vector reports on three reportable segments in accordance with NZ IFRS 8 <i>Operating Segments</i>. These segments are reported internally to the group chief executive and the Board. This reporting is used to assess performance and make decisions about the allocation of resources.</p> <p>The segments are unchanged from those reported in Vector's annual report for the year ended 30 June 2019. The segments are:</p> <p><b>Regulated Networks</b> Auckland electricity and gas distribution services.</p> <p><b>Gas Trading</b> Natural gas and LPG sales, storage and processing, and cogeneration.</p> <p><b>Technology</b> Metering services, telecommunications and new energy solutions.</p> <p>Segment information is prepared and reported in accordance with Vector's accounting policies. Intersegment transactions included in the revenues and operating expenses for each segment are on an arms' length basis.</p>
Segment profit	<p>The measures of segment profit reported to the group chief executive and the Board are earnings before interest and tax and earnings before interest, tax, depreciation and amortisation (EBITDA).</p>
Corporate activities	<p>Corporate activities, comprising shared services and investments, earn revenues that are incidental to Vector's operations and do not meet the definition of an operating segment under NZ IFRS 8. The results for corporate activities are reported in the reconciliations of segment information to the group's financial statements.</p> <p>Interest costs (net), fair value change on financial instruments and associates (share of net profit/(loss)) are reported as corporate activities and are not allocated to the segments.</p>
Major customers	<p>Vector engages with three major customers, each of which contribute greater than ten percent of the group's revenue. These customers are large energy retailers. For the year ended 30 June 2019, the customers contributed \$220.4 million (2018: \$223.6 million), \$172.3 million (2018: \$177.2 million) and \$164.6 million (2018: \$162.7 million) respectively, which is reported across all segments.</p>

#### 4. Segment information CONTINUED

	REGULATED NETWORKS \$M	GAS TRADING \$M	TECHNOLOGY \$M	INTER- SEGMENT \$M	TOTAL \$M
<b>2019</b>					
External revenue:					
Sales	676.8	284.1	269.2	–	1,230.1
Third party contributions	79.0	–	0.3	–	79.3
Other	8.8	–	–	–	8.8
Intersegment revenue	4.5	–	5.3	(9.8)	–
<b>Segment revenue</b>	<b>769.1</b>	<b>284.1</b>	<b>274.8</b>	<b>(9.8)</b>	<b>1,318.2</b>
External expenses:					
Electricity transmission expenses	(209.6)	–	–	–	(209.6)
Gas purchases and production expenses	–	(179.2)	–	–	(179.2)
Technology cost of sales	–	–	(68.3)	–	(68.3)
Network and asset maintenance	(60.6)	(17.1)	(11.0)	–	(88.7)
Employee benefit expenses	(16.3)	(13.6)	(28.5)	–	(58.4)
Other expenses	(32.8)	(38.4)	(23.2)	–	(94.4)
Intersegment expenses	(3.8)	(4.5)	(1.5)	9.8	–
<b>Segment operating expenses</b>	<b>(323.1)</b>	<b>(252.8)</b>	<b>(132.5)</b>	<b>9.8</b>	<b>(698.6)</b>
<b>Segment EBITDA</b>	<b>446.0</b>	<b>31.3</b>	<b>142.3</b>	<b>–</b>	<b>619.6</b>
Depreciation and amortisation	(122.4)	(15.6)	(91.4)	–	(229.4)
<b>Segment profit/(loss)</b>	<b>323.6</b>	<b>15.7</b>	<b>50.9</b>	<b>–</b>	<b>390.2</b>
<b>Segment capital expenditure</b>	<b>260.9</b>	<b>11.8</b>	<b>127.3</b>	<b>–</b>	<b>400.0</b>

During the year, the Technology segment delivered technology related network projects for Regulated Networks at a margin of \$0.1 million. The assets are included in the segment capital expenditure for Regulated Networks. The \$0.1 million margin is included in the segment information presented for Technology and has been eliminated in the reconciliation below.

Reconciliation to revenue, profit/(loss) before income tax and capital expenditure reported in the financial statements:	PROFIT/(LOSS) BEFORE INCOME TAX		
	REVENUE \$M	INCOME TAX \$M	CAPITAL EXPENDITURE \$M
<b>2019</b>			
<b>Reported in segment information</b>	<b>1,318.2</b>	<b>390.2</b>	<b>400.0</b>
Amounts not allocated to segments (corporate activities):			
Revenue	0.4	0.4	–
Impairment	–	(46.6)	–
Employee benefit expenses	–	(30.8)	–
Other operating expenses	–	(24.0)	–
Elimination of margin on inter-segment transaction	–	(0.1)	–
Depreciation and amortisation	–	(17.4)	–
Interest costs (net)	–	(133.3)	–
Fair value change on financial instruments	–	(2.5)	–
Associates (share of net profit/(loss))	–	0.6	–
Capital expenditure	–	–	25.1
<b>Reported in the financial statements</b>	<b>1,318.6</b>	<b>136.5</b>	<b>425.1</b>

**4. Segment information  
CONTINUED**

<b>2018</b>	<b>REGULATED NETWORKS \$M</b>	<b>GAS TRADING \$M</b>	<b>TECHNOLOGY \$M</b>	<b>INTER- SEGMENT \$M</b>	<b>TOTAL \$M</b>
External revenue:					
Sales	684.6	290.3	263.9	-	1,238.8
Third party contributions	70.2	-	1.3	-	71.5
Other	17.2	-	-	-	17.2
Intersegment revenue	4.2	-	8.4	(12.6)	-
<b>Segment revenue</b>	<b>776.2</b>	<b>290.3</b>	<b>273.6</b>	<b>(12.6)</b>	<b>1,327.5</b>
External expenses:					
Electricity transmission expenses	(220.6)	-	-	-	(220.6)
Gas purchases and production expenses	-	(187.1)	-	-	(187.1)
Technology cost of sales	-	-	(78.5)	-	(78.5)
Network and asset maintenance	(58.4)	(16.9)	(12.4)	-	(87.7)
Employee benefit expenses	(15.1)	(13.4)	(31.4)	-	(59.9)
Other expenses	(46.5)	(33.5)	(18.7)	-	(98.7)
Intersegment expenses	(6.8)	(5.0)	(0.8)	12.6	-
<b>Segment operating expenses</b>	<b>(347.4)</b>	<b>(255.9)</b>	<b>(141.8)</b>	<b>12.6</b>	<b>(732.5)</b>
<b>Segment EBITDA</b>	<b>428.8</b>	<b>34.4</b>	<b>131.8</b>	<b>-</b>	<b>595.0</b>
Depreciation and amortisation	(115.0)	(20.7)	(76.2)	-	(211.9)
<b>Segment profit/(loss)</b>	<b>313.8</b>	<b>13.7</b>	<b>55.6</b>	<b>-</b>	<b>383.1</b>
<b>Segment capital expenditure</b>	<b>245.8</b>	<b>17.1</b>	<b>93.7</b>	<b>-</b>	<b>356.6</b>

During the year, the Technology segment delivered technology related network projects for Regulated Networks at a margin of \$0.7 million. The assets are included in the segment capital expenditure for Regulated Networks. The \$0.7 million margin is included in the segment information presented for Technology and has been eliminated in the reconciliation below.

<b>2018</b>	<b>REVENUE \$M</b>	<b>PROFIT/(LOSS) BEFORE INCOME TAX \$M</b>	<b>CAPITAL EXPENDITURE \$M</b>
<b>Reconciliation to revenue, profit/(loss) before income tax and capital expenditure reported in the financial statements:</b>			
<b>Reported in segment information</b>	1,327.5	383.1	356.6
Amounts not allocated to segments (corporate activities):			
Revenue	0.9	0.9	-
Employee benefit expenses	-	(28.6)	-
Other operating expenses	-	(25.0)	-
Elimination of margin on inter-segment transaction	-	(0.7)	-
Depreciation and amortisation	-	(14.0)	-
Interest costs (net)	-	(130.7)	-
Fair value change on financial instruments	-	3.1	-
Associates (share of net profit/(loss))	-	(1.5)	-
Capital expenditure	-	-	24.6
<b>Reported in the financial statements</b>	<b>1,328.4</b>	<b>186.6</b>	<b>381.2</b>

**5. Revenue****5.1 Revenue from contracts with customers**

	NOTE	2019 \$M	2018 \$M
Sales		1,230.1	1,238.8
Third party contributions		79.3	71.5
Other		9.2	18.1
<b>Total</b>		<b>1,318.6</b>	1,328.4

## Transition

The group adopted NZ IFRS 15 with a date of initial application of 1 July 2018 using the cumulative retrospective approach. Under this approach, the cumulative effect of applying NZ IFRS 15 is recognised as an adjustment to the opening balance of equity at 1 July 2018. Comparative information has not been restated and continues to be reported under NZ IAS 18 and NZ IAS 11.

The adoption of NZ IFRS 15 has impacted the timing of recognising revenue from third party contributions for some construction contracts. The table below summarises the impacts on the group's consolidated financial statements for the year ended 30 June 2019.

BALANCE SHEET AS AT 30 JUNE 2019	BALANCE BEFORE TRANSITION \$M	ADJUSTMENT \$M	AS REPORTED \$M
<b>Current liabilities</b>			
Contract liabilities	47.1	1.3	48.4
<b>Non-current liabilities</b>			
Deferred tax	490.1	(2.3)	487.8
Contract liabilities	38.1	5.8	43.9
<b>Equity</b>			
Retained earnings	1,509.4	6.0	1,515.4
<b>PROFIT OR LOSS FOR THE YEAR ENDED 30 JUNE 2019</b>			
Revenue – Regulated Networks	767.9	1.2	769.1

## Policies

Revenue is measured at the value of consideration received, or receivable, as specified in a contract with a customer. Amounts collected on behalf of third parties are excluded. The group recognises revenue when it transfers control over a good or service to a customer.

## 5. Revenue CONTINUED

### 5.1 Revenue from contracts with customers

#### CONTINUED

Major sources of revenue

#### Regulated Networks

##### *Electricity and gas distribution services*

Revenue from electricity and gas distribution services are measured at fair value, to the extent that pricing is determined by the regulator within a defined pricing path set. Revenue is recognised over time using an output method. The right to payment corresponds directly with the customers' pattern of electricity and gas consumption.

##### *Third party contributions*

Third party contributions towards the construction of property, plant and equipment are recognised over time, reflecting the percentage completion of the underlying construction activity or the performance obligation if the activity is bundled with other goods or services.

A contract liability is presented on the balance sheet representing the portion of consideration received from the customer on acceptance of a contract but where the performance obligation associated with the contract is not yet satisfied.

#### Gas Trading

##### *Sale of natural gas*

The group receives revenue from customers for the provision of a continuous supply of natural gas over a time period. Revenue is recognised over time in line with a customer's consumption of natural gas and measured at the transaction price of the contract.

The transaction price for a gas supply contract includes variable consideration in the form of indexed pricing, volume pricing, and take or pay arrangements. The group estimates the amount of variable consideration present in each contract using the expected value method, which is the sum of probability weighted amounts in a range of possible consideration amounts.

#### Technology

##### *Metering revenue*

Metering revenue earned from the provision of metering services is recognised over time as the customer simultaneously receives and consumes the benefits from operations of the group's network of meters.

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### 5.2. Contract balances

Policies

#### Contract liabilities

Of the revenue recognised this year, \$29.2 million was included in the contract liability balance at the beginning of the reporting period.

#### Contract assets

Contract assets represent balances due from customers for performance obligations (or series of performance related milestones) completed but that have not been invoiced. A contract asset is reclassified to trade receivables at the point when it is invoiced to the customer.

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**6. Operating expenses**

	NOTE	2019 \$M	2018 \$M
Electricity transmission	4	209.6	220.6
Gas purchases and production	4	179.2	187.1
Technology cost of sales	4	68.3	78.5
Network and asset maintenance	4	88.7	87.7
Other direct expenses		55.0	59.0
Employee benefit expenses	4	89.2	88.5
Administration expenses		26.0	20.0
Professional fees		13.0	15.0
IT expenses		16.0	15.0
Other indirect expenses		8.5	15.4
<b>Total</b>		<b>753.5</b>	<b>786.8</b>

## Fees paid to auditors

Fees were paid to KPMG as follows:

- audit or review of financial statements: \$597,000 (2018: \$506,000);
- regulatory assurance: \$392,185 (2018: \$366,000);
- other assurance fees: \$74,485 (2018: \$50,000);
- non-audit fees: \$174,000 (2018: \$nil).

Other assurance fees include fees for the audit of guaranteeing group financial statements, bond registers, and agreed upon procedures required by certain contractual arrangements. Non-audit fees include fees for IT forensics and other forensic services.

**7. Interest costs (net)**

	NOTE	2019 \$M	2018 \$M
Interest expense		125.9	131.6
Amortisation costs		6.5	5.1
Capitalised interest		(5.4)	(4.4)
Interest income		(1.1)	(2.2)
Interest on leases	15.3	2.0	–
Decommissioning costs	17	2.0	1.8
Other		3.4	(1.2)
<b>Total</b>		<b>133.3</b>	<b>130.7</b>

## Policies

Interest costs (net) include interest expense on borrowings and interest income on funds invested which are recognised using the effective interest rate method.

## Capitalised interest

Vector has capitalised interest to PPE and software intangibles while under construction at an average rate of 5.3% per annum (2018: 5.8%).

**8. Fair value change on financial instruments**

	2019 \$M	2018 \$M
Fair value movement on hedging instruments	54.7	32.2
Fair value movement on hedged items	(57.2)	(29.1)
<b>Total gains/(losses)</b>	<b>(2.5)</b>	<b>3.1</b>

**9. Income tax expense/  
(benefit)**

	2019 \$M	2018 \$M
<b>Reconciliation of income tax expense/(benefit)</b>		
Profit/(loss) before income tax	136.5	186.6
<b>Tax at current rate of 28%</b>	<b>38.2</b>	52.2
<i>Current tax adjustments:</i>		
Non-deductible expenses	3.3	3.3
Relating to prior periods – others	0.1	1.9
Relating to MEL Network Limited removal	–	(16.7)
Impairment	13.0	–
Other	(0.3)	(1.3)
<i>Deferred tax adjustments:</i>		
Relating to prior periods – others	(1.8)	(2.6)
<b>Income tax expense/(benefit)</b>	<b>52.5</b>	36.8
Comprising:		
Current tax	40.8	28.1
Deferred tax	11.7	8.7

Other adjustments

**MEL Network Limited removal**

MEL Network Limited (MEL), a wholly owned subsidiary of Vector, was removed from the Companies Office register on 27 March 2018. Following the removal, the related party advance between MEL and Vector Limited was written off, resulting in an income tax benefit of \$16.7 million to the group in the year ended 30 June 2018. A private binding ruling was obtained to confirm the income tax benefit.

Policies

Income tax expense/(benefit) comprises current and deferred tax and is calculated using rates enacted or substantively enacted at balance date.

Current and deferred tax is recognised in profit or loss unless the tax relates to items in other comprehensive income, in which case the tax is recognised as an adjustment in other comprehensive income against the item to which it relates.

Income tax asset

Vector's current policy is to fully impute its dividend payments to shareholders. This has driven the recognition of a current income tax asset at 30 June 2019 of \$52.4 million (2018: \$84.7 million) and a non-current income tax asset of \$52.3 million (2018: nil).

The group intends to review its dividend and imputation policy during the year ended 30 June 2020 following confirmation of the Commerce Commission's Default Price Path (DPP3) due on 28 November, 2019.

Imputation credits

There are no imputation credits available for use as at 30 June 2019 (2018: nil), as the imputation account has a debit balance as of that date.

**10. Deferred tax****Deferred tax liability/ (asset)**

	NOTE	PPE AND INTANGIBLES \$M	PROVISIONS AND ACCRUALS \$M	HEDGE RESERVES \$M	OTHER \$M	TOTAL \$M
<b>Balance at 1 July 2017</b>		492.4	(8.3)	(19.0)	10.4	475.5
Recognised in profit or loss		23.5	(11.3)	–	(3.5)	8.7
Recognised in other comprehensive income		–	–	3.5	–	3.5
Recognised from business combinations		(1.1)	–	–	–	(1.1)
<b>Balance at 30 June 2018</b>		514.8	(19.6)	(15.5)	6.9	486.6
Recognised in profit or loss		<b>20.5</b>	<b>(5.9)</b>	–	<b>(2.9)</b>	<b>11.7</b>
Recognised in other comprehensive income		–	–	<b>(8.2)</b>	–	<b>(8.2)</b>
Recognised from adoption of NZ IFRS 15	5	–	–	–	<b>(2.3)</b>	<b>(2.3)</b>
Recognised from adoption of NZ IFRS 16		–	–	–	<b>(0.2)</b>	<b>(0.2)</b>
<b>Balance at 30 June 2019</b>		<b>535.3</b>	<b>(25.5)</b>	<b>(23.7)</b>	<b>1.5</b>	<b>487.6</b>

The group's deferred tax position is presented in the balance sheet as follows:

	2019 \$M	2018 \$M
Deferred tax asset	(0.2)	(0.1)
Deferred tax liability	<b>487.8</b>	486.7
<b>Total</b>	<b>487.6</b>	486.6

**Policies****Deferred tax is:**

- Recognised on temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.
- Not recognised for the initial recognition of goodwill.
- Measured at tax rates that are expected to be applied to the temporary differences when they reverse.

**11. Trade and other receivables**

	2019 \$M	2018 \$M
<b>Current</b>		
Trade receivables	<b>76.3</b>	71.6
Interest receivable	<b>9.4</b>	17.3
Prepayments	<b>11.1</b>	11.7
Other	<b>3.3</b>	3.9
<b>Balance at 30 June</b>	<b>100.1</b>	104.5
<b>Non-current</b>		
Other receivables	<b>1.7</b>	0.1
<b>Balance at 30 June</b>	<b>1.7</b>	0.1

## 11. Trade and other receivables CONTINUED

At 30 June, the exposure to credit risk for trade and other receivables by type of counterparty was as follows.

	2019 \$M		2018 \$M	
	NOT CREDIT IMPAIRED	CREDIT IMPAIRED	NOT CREDIT IMPAIRED	CREDIT IMPAIRED
Business customers	62.4	2.8	60.1	0.7
Mass market customers	6.6	–	4.4	–
Third party asset damages	0.3	5.2	0.4	3.9
Residential and other	4.2	0.9	5.2	–
<b>Total gross carrying amount</b>	<b>73.5</b>	<b>8.9</b>	<b>70.1</b>	<b>4.6</b>
Loss allowance	(0.2)	(4.2)	(0.1)	(3.0)
	<b>73.3</b>	<b>4.7</b>	<b>70.0</b>	<b>1.6</b>

The following table provides information about the exposure to credit risk and expected credit losses for trade receivables as at 30 June.

	2019 \$M		2018 \$M	
	CARRYING AMOUNT	LOSS ALLOWANCE	CARRYING AMOUNT	LOSS ALLOWANCE
Not past due	65.9	–	56.5	–
Past due 1 – 30 days	7.1	–	7.2	–
Past due 31 – 120 days	2.9	0.2	4.1	0.1
Past due more than 120 days	2.1	4.2	3.8	3.0
<b>Balance at 30 June</b>	<b>78.0</b>	<b>4.4</b>	<b>71.6</b>	<b>3.1</b>

### Policies

Receivables are initially recognised at fair value. They are subsequently adjusted for credit impairment losses.

Discounting is not applied to receivables where collection is expected to occur within the next twelve months.

### Credit risk

In assessing credit losses for trade receivables, the group applies the simplified approach and records lifetime expected credit losses (“ECLs”) on trade receivables.

Lifetime ECLs result from all possible default events over the expected life of a trade receivable. The group considers the probability of default upon initial recognition of the trade receivable, based on reasonable and available information on the group’s customers and groups of customers. The group’s trade receivables are monitored in two groups: business customers, and mass market residential customers.

In assessing ECLs on trade receivables the group considers both quantitative and qualitative inputs. Quantitative data includes past collection rates, industry statistics, ageing of receivables, and trading outlook. Qualitative inputs include past trading history with the group.

The group’s customer acceptance process includes a check on credit history, profitability, and the customer’s external credit rating if available. Different levels of sale limits are also imposed on customer accounts by nature.

## 12. Investments

**Judgements** Classifying investments as either subsidiaries, associates, financial assets or joint operations requires management to judge the degree of influence which the group holds over the investee. These judgements impact upon the basis of consolidation accounting which is used to recognise the group's investments in the consolidated financial statements.

### 12.1 Investments in subsidiaries

**Trading subsidiaries** Significant trading entities and holding companies in the group are listed below.

	PRINCIPAL ACTIVITY	PERCENTAGE HELD	
		2019	2018
Vector Gas Trading Limited	Natural gas trading and processing	100%	100%
Vector Kapuni Limited	Joint operator – cogeneration plant	100%	100%
Liquigas Limited	Bulk LPG storage, distribution, and management	60%	60%
On Gas Limited	LPG sales and distribution	100%	100%
Vector Metering Data Services Limited	Holding company	100%	100%
Advanced Metering Assets Limited	Metering services	100%	100%
Advanced Metering Services Limited	Metering services	100%	100%
Arc Innovations Limited	Metering services	100%	100%
Vector Communications Limited	Telecommunications	100%	100%
Vector Energy Solutions Limited	Holding company	100%	100%
PowerSmart NZ Limited	Energy solutions services	100%	100%
Vector ESPS Trustee Limited	Trustee company	100%	100%
E-Co Products Group Limited	Holding company	100%	100%
Cristal Air International Limited	Ventilation, heating and water systems sales and assembly	100%	100%
Ventilation Australia Pty Limited	Holding company	100%	100%
HRV Australia Pty Limited	Ventilation systems and parts sales	100%	100%
Vector Advanced Metering Services (Australia) Pty Limited	Metering services	100%	100%
Vector Advanced Metering Assets (Australia) Limited	Metering services	100%	100%
Vector Energy Solutions (Australia) Pty Limited	Energy solutions services	100%	100%

**Policies** Subsidiaries are entities controlled directly or indirectly by the parent. Vector holds over 50% of the voting rights in all entities reported as subsidiaries. There are currently no indicators that Vector does not have control consistent with these voting rights. The financial statements of subsidiaries are reported in the financial statements using the acquisition method of consolidation. Intra-group balances and transactions between group companies are eliminated on consolidation.

**Geography** All subsidiaries are incorporated in New Zealand, except for the following which are incorporated in Australia:

- Vector Advanced Metering Services (Australia) Pty Limited;
- Vector Energy Solutions (Australia) Pty Limited;
- Ventilation Australia Pty Limited;
- HRV Australia Pty Limited.

## 12. Investments CONTINUED

### 12.2 Investment in associate

ASSOCIATE	PRINCIPAL ACTIVITY	BALANCE DATE	COUNTRY OF INCORPORATION	PERCENTAGE HELD	
				2019	2018
Tree Scape Limited	Vegetation management	31 March	New Zealand	50%	50%
				2019 \$M	2018 \$M
<b>Carrying amount of associates</b>					
<b>Balance at 1 July</b>				8.1	9.6
Share of net profit/(loss) of associate				0.6	(1.5)
<b>Balance at 30 June</b>				8.7	8.1
<b>Equity accounted earnings of associate</b>					
Profit/(loss) before income tax				0.8	(2.1)
Income tax benefit/(expense)				(0.2)	0.6
<b>Share of net profit/(loss) of associate</b>				0.6	(1.5)
<b>Total recognised revenues and expenses</b>				0.6	(1.5)

#### Policies

Associates are entities in which Vector has significant influence, but not control or joint control, over the operating and financial policies. Vector holds over 20%, but not more than half, of the voting rights in all entities reported as associates and has assessed that there are currently no indicators that Vector does not have significant influence consistent with these voting rights. Where Vector has 50% voting rights in an entity reported as an associate, we have determined that this does not constitute joint control as there is more than one combination of parties that can achieve majority voting rights and control through board voting.

Investments in associates are reported in the financial statements using the equity method.

### 12.3 Interest in joint operation

JOINT OPERATION	PRINCIPAL ACTIVITY	BALANCE DATE	INTEREST HELD	
			2019	2018
Kapuni Energy Joint Venture	Cogeneration plant operator	30 June	50%	50%

#### Policies

A joint operation is where Vector is a party to a joint arrangement and has rights to the assets and obligations for the liabilities relating to the arrangement.

Vector has assessed that the contractual arrangement governing the Kapuni Energy Joint Venture, of which Vector Kapuni Limited is a party, meets the criteria of a joint arrangement, and that the rights and obligations conferred by that contract meet the classification of a joint operation.

The interest in the joint operation is reported in the financial statements using the proportionate method of consolidation.

## 12. Investments CONTINUED

### 12.4 Other investments

#### mPrest Systems (2003) Limited

On 4 October 2017, Vector invested \$14.0 million (US \$10.0 million) into mPrest Systems (2003) Limited ("mPrest"). The investment is accounted for as a financial asset at fair value through other comprehensive income ("OCI") on the Balance Sheet.

Vector holds 8.1% (2018: 7.8%) of the issued shares in mPrest. The group has determined the fair value of the asset as \$15.6 million at 30 June 2019, with the upward movement of \$0.6 million recognised in OCI.

For fair value measurement purposes, the financial asset is classified as level 3 on the fair value hierarchy (see Note 20 for explanations of various levels in the hierarchy). The table below provides information on how the fair value of the asset is determined.

The discount rate used is a post-tax, risk-adjusted rate that reflects the risks specific to the different segments of operations in mPrest.

The terminal growth rate represents an estimated long-term sustainable growth rate for the free cash flows of the business.

FAIR VALUE					
DESCRIPTION	2019 \$M	2018 \$M	VALUATION TECHNIQUE	SIGNIFICANT UNOBSERVABLE INPUT	SENSITIVITY OF FAIR VALUE TO CHANGES IN INPUT
Offshore private equity investment	15.6	15.0	Discounted cashflow	Discount rate 10%	A 1% increase in discount rate used will result in a \$2.2 million decrease in the fair value. A 1% decrease in discount rate will result in a \$2.9 million increase in fair value.
				Terminal growth rate 2%	A 1% increase in the terminal growth rate used will result in a \$1.6 million increase in the fair value. A 1% decrease in the terminal growth rate used will result in a \$1.2 million decrease in the fair value.

The group's team of valuation specialists are responsible for establishing the appropriate valuation techniques and inputs into the valuation models, including an assessment of any inputs obtained from third party or market sources.

The valuation team report to the chief financial officer, and any significant valuation issues are reported to the group's audit committee.

### 13. Intangible assets

	NOTE	CUSTOMER INTANGIBLES \$M	EASEMENTS \$M	SOFTWARE \$M	TRADE NAMES \$M	GOODWILL \$M	TOTAL \$M
<b>Carrying amount 30 June 2017</b>		38.4	16.3	59.9	16.6	1,266.0	1,397.2
Cost		49.9	16.3	252.5	16.8	1,330.0	1,665.5
Accumulated amortisation		(11.5)	-	(192.6)	(0.2)	-	(204.3)
Accumulated impairment		-	-	-	-	(64.0)	(64.0)
Transfers from PPE		-	0.5	24.4	-	-	24.9
Acquisition of business		-	-	-	-	3.6	3.6
Disposals		-	-	(0.1)	-	-	(0.1)
Amortisation for the period		(4.5)	-	(23.1)	(0.8)	-	(28.4)
<b>Carrying amount 30 June 2018</b>		33.9	16.8	61.1	15.8	1,269.6	1,397.2
Cost		49.9	16.8	276.6	16.8	1,333.6	1,693.7
Accumulated amortisation		(16.0)	-	(215.5)	(1.0)	-	(232.5)
Accumulated impairment		-	-	-	-	(64.0)	(64.0)
Transfers from PPE		-	0.5	30.6	-	-	31.1
Acquisition of business		-	-	0.1	-	7.4	7.5
Impairment	13.1	(3.9)	-	-	-	(42.7)	(46.6)
Amortisation for the period		(5.9)	-	(26.6)	(1.8)	-	(34.3)
<b>Carrying amount 30 June 2019</b>		24.1	17.3	65.2	14.0	1,234.3	1,354.9
Cost		49.9	17.3	299.0	16.8	1,341.0	1,724.0
Accumulated amortisation		(21.9)	-	(233.8)	(2.8)	-	(258.5)
Accumulated impairment		(3.9)	-	-	-	(106.7)	(110.6)

### 13. Intangible assets CONTINUED

#### 13.1 Goodwill

Goodwill by reportable segment	2019 \$M	2018 \$M
Regulated Networks	1,050.2	1,050.2
Gas Trading	156.8	156.8
Technology	27.3	62.6
<b>Total</b>	<b>1,234.3</b>	<b>1,269.6</b>

**Policies** Goodwill represents the excess of the consideration transferred over the fair value of Vector's share of the net identifiable assets of an acquired subsidiary.  
Goodwill is carried at cost less accumulated impairment losses.

**Allocation** Goodwill is monitored internally at a group level. It is allocated to operating segments, which are also reflective of the group's cash generating units ("CGUs"), for impairment testing purposes. This is the highest level permissible under NZ IFRS. The CGUs within the group are: electricity, gas distribution, metering, gas trading, communications, E-Co Products and commercial energy solutions.  
Goodwill is tested at least annually for impairment against the recoverable amount of the CGU to which it has been allocated.

**Judgements** To assess impairment, management must estimate the future cash flows of operating segments including the CGUs that make up those segments. This entails making judgements including:

- the expected rate of growth of revenues;
- margins expected to be achieved;
- the level of future maintenance expenditure required to support these outcomes; and
- the appropriate discount rate to apply when discounting future cash flows.

**Impairment** As at 30 June 2019, the group has recognised an impairment loss of \$46.6 million in respect of goodwill and intangible assets allocated to the E-Co Products ("E-Co") CGU within the technology segment. The impairment reflects various factors including the post-acquisition performance of E-Co's heat pumps and filters businesses falling below expectations, the closure of E-Co's retrofit windows business and the significant investment in establishing the HRV solar business. Following the appointment of new management in September 2018, E-Co has undertaken a detailed review of its operations with a focus on reorganisation and simplification. The business is expected to return to profitability in 2020.  
The recoverable amount of the E-Co CGU has been determined based on value in use. Post-tax discount rates of between 7.6% and 8.3% (2018: 8.3% and 9.0%) have been applied in determining the recoverable amount for the E-Co CGU.

**Assumptions** The recoverable amounts attributed to the electricity, gas distribution, metering, gas trading and communications CGUs are calculated on the basis of value-in-use using discounted cash flow models. On the basis that the recoverable amounts of these CGUs to which goodwill is allocated exceeds the net assets plus goodwill allocated, the group has determined that no impairment to goodwill has occurred during the period.  
Future cash flows are forecast based on actual results and business plans.  
For the electricity, gas distribution and metering CGUs, a ten-year period has been used due to the long-term nature of the group's capital investment in these businesses and the predictable nature of their cash flows. A five-year period has been used for the gas trading, E-Co and communications CGUs. Terminal growth rates in a range of 1.0% to 2.0% (2018: 1.0% to 2.0%) and post-tax discount rates between 4.7% to 8.9% (2018: 4.8% and 9.0%) are applied. Rates vary for the specific segment being valued.  
Projected cash flows for regulated businesses are sensitive to regulatory uncertainty. Estimated future regulated network revenues and the related supportable levels of capital expenditure are based on default price-quality path determinations issued by the Commerce Commission and are in line with estimates published in the asset management plans.

### 13. Intangible assets CONTINUED

#### 13.2 Other intangible assets

##### Policies

Other intangible assets are initially measured at cost, and subsequently stated at cost less any accumulated amortisation and impairment losses.

Software, customer intangibles, and trade names have been assessed as having a finite life greater than 12 months, and are amortised from the date the asset is ready for use on a straight-line basis over its estimated useful life. The estimated useful lives (years) are as follows:

Software	3 – 36
Customer intangibles	3 – 10
Trade names	10

Easements are not amortised, but are tested for impairment at least annually as part of the assessment of the carrying values of assets against the recoverable amounts of the operating segments to which they have been allocated.

### 14. Property, plant and equipment (PPE)

	DISTRIBUTION SYSTEMS \$M	ELECTRICITY AND GAS METERS \$M	LAND, BUILDINGS AND IMPROVE- MENTS \$M	COMPUTER AND TELCO EQUIPMENT \$M	OTHER PLANT AND EQUIPMENT \$M	CAPITAL WORK IN PROGRESS \$M	TOTAL \$M
<b>Carrying amount 1 July 2017</b>	2,861.9	448.9	172.5	107.9	135.0	111.3	3,837.5
Cost	3,818.4	756.0	204.7	208.9	229.0	111.3	5,328.3
Accumulated depreciation	(956.5)	(307.1)	(32.2)	(101.0)	(94.0)	-	(1,490.8)
Additions	-	-	-	-	2.5	381.2	383.7
Acquisition of business	0.6	-	-	-	-	-	0.6
Transfers – Intangible assets	-	-	-	-	-	(24.9)	(24.9)
Transfers – Other	223.8	73.8	1.9	6.3	34.1	(339.9)	-
Disposals	(3.7)	-	-	-	-	-	(3.7)
Depreciation for the period	(120.3)	(44.1)	(3.7)	(14.3)	(15.1)	-	(197.5)
<b>Carrying amount 30 June 2018</b>	2,962.3	478.6	170.7	99.9	156.5	127.7	3,995.7
Cost	4,028.1	829.2	206.6	206.6	265.6	127.7	5,663.8
Accumulated depreciation	(1,065.8)	(350.6)	(35.9)	(106.7)	(109.1)	-	(1,668.1)
Additions	-	-	-	-	-	424.6	424.6
Acquisition of business	-	-	-	0.1	0.3	-	0.4
Transfers – Intangible assets	-	-	-	-	-	(31.1)	(31.1)
Transfers – Other	269.8	102.0	13.0	6.1	20.2	(411.1)	-
Disposals	(1.9)	(1.7)	(0.1)	-	(0.1)	-	(3.8)
Depreciation for the period	(120.0)	(53.4)	(3.4)	(11.7)	(12.7)	-	(201.2)
<b>Carrying amount 30 June 2019</b>	3,110.2	525.5	180.2	94.4	164.2	110.1	4,184.6
Cost	4,280.4	926.7	219.4	198.4	286.0	110.1	6,021.0
Accumulated depreciation	(1,170.2)	(401.2)	(39.2)	(104.0)	(121.8)	-	(1,836.4)

**14. Property, plant and equipment (PPE)  
CONTINUED**

Policies

PPE is initially measured at cost, and subsequently stated at cost less depreciation and any impairment losses. Cost may include:

- Consideration paid on acquisition
- Costs to bring the asset to working condition
- Materials used in construction
- Direct labour attributable to the item
- Interest costs attributable to the item
- A proportion of directly attributable overheads incurred
- If there is a future obligation to dismantle and/or remove the item, the costs of doing so

Capitalisation of costs stops when the asset is ready for use.

Subsequent expenditure that increases the economic benefits derived from the asset is capitalised.

Uninstalled assets are stated at the lower of cost and estimated recoverable amount.

Depreciation commences when an asset becomes available for use.

Depreciation of PPE, other than freehold land and capital work in progress, is calculated on a straight-line basis and expensed over the useful life of the asset. Useful lives are reviewed regularly and adjusted as appropriate for the revised expectations.

Estimated useful lives (years) are as follows:

Buildings	40 – 100	Meters and meter inspections	2 – 40
Distribution systems	5 – 100	Other plant and equipment	3 – 55
Leasehold improvements	5 – 20		

Judgements

Management must apply judgement when evaluating:

- Whether costs relate to bringing the items to working condition
- The amount of overhead costs which can be reasonably directly attributed to the construction or acquisition of an asset
- Whether subsequent expenditure on the asset increases the future economic benefits to be obtained from that asset
- Whether any indicators of impairment have occurred which might require impairment testing of the current carrying values

Capital commitments

The estimated capital expenditure for PPE and software intangibles contracted for at balance date but not provided is \$83.4 million for the group (2018: \$68.0 million).

## 15. Leases

### 15.1 Right of use assets

	LAND, BUILDINGS AND IMPROVE- MENTS \$M	OTHER PLANT AND EQUIPMENT \$M	TOTAL \$M
<b>Opening net book value 1 July 2018</b>	–	–	–
Movements on transition	39.4	0.7	40.1
Additions	2.1	3.7	5.8
Depreciation for the period	(6.8)	(1.0)	(7.8)
<b>Carrying amount 30 June 2019</b>	<b>34.7</b>	<b>3.4</b>	<b>38.1</b>
Cost	41.5	4.4	45.9
Accumulated amortisation	(6.8)	(1.0)	(7.8)

### 15.2 Lease liabilities maturity analysis

	MINIMUM LEASE PAYMENTS \$M	INTEREST \$M	PRESENT VALUE \$M
Within one year	9.0	(1.8)	7.2
One to five years	23.2	(4.6)	18.6
Beyond five years	19.7	(5.6)	14.1
<b>Total</b>	<b>51.9</b>	<b>(12.0)</b>	<b>39.9</b>
Current portion			7.2
Non-current portion			32.7
<b>Total</b>			<b>39.9</b>

### 15.3 Lease expenses included in profit or loss

	2019 \$M
Short-term leases	0.3
Interest on leases	2.0

### 15.4 Lease cashflows included in cashflow statement

	2019 \$M
Total cash outflow in relation to leases	8.4

### Policies

Lease liabilities are measured at the present value of remaining lease payments, discounted at the group's incremental borrowing rate as at 1 July 2018. The weighted-average rate applied is 4.7%.

Right of use (ROU) assets are initially recognised at cost, comprising the initial amount of the lease liability less any unamortised lease incentives. ROU assets are subsequently depreciated using the straight-line method from the commencement date to the end of the lease term. In considering the lease term, the group applies judgment in determining whether it is reasonably certain that an extension or termination option will be exercised. The majority of the group's leases are property leases. These, in the main, give the group the right to renew the leases at the end of their lease terms.

## 15. Leases CONTINUED

### 15.5 Transition to NZ IFRS 16

#### Leases

	\$M
<b>Operating lease commitment at 30 June 2018 as disclosed in the Group's financial statements</b>	<b>40.2</b>
Discounted using the incremental borrowing rate at 1 July 2018	30.2
Finance lease liabilities as at 1 July 2018	0.5
Recognition exemption for:	
Short-term leases	(0.5)
Extension options reasonably certain to be exercised	13.0
Net changes in leases	(2.3)
<b>Lease liabilities recognised at 1 July 2018</b>	<b>40.9</b>

#### Transition

The group applied NZ IFRS 16 from 1 July 2018 using the modified retrospective approach.

Leases entered into and identified by the group include property leases, building access rights, and vehicle leases.

In assessing whether an arrangement is, or contains a lease, the group considers whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the group assesses whether:

- the contract involves the use of an identified asset;
- the group has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- the group has the right to direct the use of the asset.

On transition, the group applied the following practical expedient available from NZ IFRS 16:

- to not recognise right-of-use assets and liabilities for short-term leases with lease terms ending within 12 months from the date of transition. The costs related to these leases are recognised in the profit or loss; and
- to not reassess whether an arrangement is, or contains a lease, at the date of transition if such arrangement was previously identified as a lease applying NZ IAS 17 and IFRIC 4.

The table below summarises the key impacts on the group's segment note for the year ended 30 June 2019.

Profit or Loss for the year ended 30 June 2019	INCREASE / (DECREASE)				TOTAL \$M
	REGULATED NETWORKS \$M	GAS TRADING \$M	TECHNOLOGY \$M	CORPORATE \$M	
Operating expenses	(1.3)	(1.4)	(4.3)	(1.4)	(8.4)
<b>EBITDA</b>	<b>1.3</b>	<b>1.4</b>	<b>4.3</b>	<b>1.4</b>	<b>8.4</b>
Depreciation and amortisation	1.1	1.3	4.2	1.2	7.8
Interest costs	0.4	0.7	0.6	0.3	2.0
<b>Profit/(loss) before income tax</b>	<b>(0.2)</b>	<b>(0.6)</b>	<b>(0.5)</b>	<b>(0.1)</b>	<b>(1.4)</b>

## 16. Trade and other payables

	2019 \$M	2018 \$M
<b>Current</b>		
Trade payables	154.6	158.6
Employee benefits	18.0	15.6
Finance leases	-	0.3
Interest payable	27.5	39.6
<b>Balance at 30 June</b>	<b>200.1</b>	<b>214.1</b>
<b>Non-current</b>		
Finance leases	-	0.2
Other non-current payables	1.8	-
<b>Balance at 30 June</b>	<b>1.8</b>	<b>0.2</b>

Other payables

Vector accrues employee benefits which remain unused at balance date, and amounts expected to be paid under short-term cash bonus plans.

## 17. Provisions

	PROVISION FOR DISTRIBUTION TO CUSTOMERS \$M	DECOM- MISSIONING PROVISIONS \$M	OTHER \$M	TOTAL \$M
<b>Balance 1 July 2018</b>	16.6	22.6	7.8	47.0
Additions	8.8	2.8	6.5	18.1
Unwinding of discount	-	2.0	-	2.0
Payments	(16.6)	-	(4.3)	(20.9)
Reversed to profit or loss	-	-	(1.4)	(1.4)
<b>Balance at 30 June 2019</b>	<b>8.8</b>	<b>27.4</b>	<b>8.6</b>	<b>44.8</b>
Comprising:				
Current	8.8	-	8.6	17.4
Non-current	-	27.4	-	27.4

Policies

A provision is recognised where the likelihood of a resultant liability is more probable than not, and the amount required to settle the liability can be reliably estimated.

Decommissioning

The decommissioning provisions represent the present value of the future expected costs for dismantling the group's gas treatment and cogeneration plants situated at Kapuni and depot assets situated at various regions in New Zealand. Timing of economic outflows represents management's best estimate of the end of the useful life of the plant and associated assets.

Other provisions

These provisions comprise amounts that may be required to be utilised within one year or a longer period dependent on ongoing negotiations with third parties involved. There are currently no foreseeable uncertainties which would be reasonably expected to lead to material changes in the amounts provided.

**18. Borrowings**

<b>2019</b>	<b>CURRENCY</b>	<b>MATURITY DATE</b>	<b>FACE VALUE \$M</b>	<b>UNAMORT- ISED COSTS \$M</b>	<b>FAIR VALUE ADJUSTMENT ON HEDGED RISK \$M</b>	<b>CARRYING VALUE \$M</b>	<b>FAIR VALUE \$M</b>
Bank facilities – variable rate	NZD	Mar 2020 – Jul 2021	395.0	(1.2)	–	393.8	393.8
Capital bonds – 5.7% fixed rate	NZD	–	307.2	(1.0)	–	306.2	345.7
Wholesale bonds – 4.996% fixed rate	NZD	Mar 2024	240.0	3.9	–	243.9	278.7
Senior notes – fixed rate	USD	Sep 2019 – Sep 2029	1,112.9	(2.1)	109.7	1,220.5	1,291.6
Floating rate notes – variable rate	NZD	Oct 2020	350.0	(0.5)	–	349.5	351.8
Unsubordinated bonds – 3.45% fixed rate	NZD	May 2025	250.0	(2.9)	–	247.1	277.3
<b>Balance at 30 June</b>			<b>2,655.1</b>	<b>(3.8)</b>	<b>109.7</b>	<b>2,761.0</b>	<b>2,938.9</b>

<b>2018</b>	<b>CURRENCY</b>	<b>MATURITY DATE</b>	<b>FACE VALUE \$M</b>	<b>UNAMORT- ISED COSTS \$M</b>	<b>FAIR VALUE ADJUSTMENT ON HEDGED RISK \$M</b>	<b>CARRYING VALUE \$M</b>	<b>FAIR VALUE \$M</b>
Bank facilities – variable rate	NZD	Mar 2020 – Feb 2021	110.0	(1.1)	–	108.9	108.9
Capital bonds – 5.7% fixed rate	NZD	–	307.2	(1.3)	–	305.9	324.9
Wholesale bonds – 4.996% fixed rate	NZD	Mar 2024	240.0	4.4	–	244.4	244.1
Senior notes – fixed rate	USD	Sep 2019 – Sep 2029	1,112.9	(2.6)	52.6	1,162.9	1,150.7
Floating rate notes – variable rate	NZD	Oct 2020	350.0	(1.0)	–	349.0	342.4
Medium term notes – 7.625% fixed rate	GBP	Jan 2019	285.6	(0.3)	(61.1)	224.2	231.4
<b>Balance at 30 June</b>			<b>2,405.7</b>	<b>(1.9)</b>	<b>(8.5)</b>	<b>2,395.3</b>	<b>2,402.2</b>

## 18. Borrowings CONTINUED

Policies	<p>Borrowings are initially recorded at fair value, net of transaction costs. After initial recognition, borrowings are measured at amortised cost with any difference between the initial recognised amount and the redemption value being recognised in interest costs in profit or loss over the period of the borrowing using the effective interest rate method.</p> <p>The carrying value of borrowings includes the principal converted at contract rates (face value), unamortised costs and a fair value adjustment for the component of the risk that is hedged. The fair value is calculated by discounting the future contractual cash flows at current market interest rates that are available for similar financial instruments. The fair value of all borrowings, calculated for disclosure purposes, are classified as level 2 on the fair value hierarchy, explained further in Note 20.</p>
Bank facilities	<p>New floating rate bank facilities were added with a maturity date in July 2021.</p>
Capital bonds	<p>Capital bonds of \$307.2 million are unsecured, subordinated bonds with the next election date set as 15 June 2022. The interest rate was fixed at 5.7% at the previous election date of 15 June 2017.</p>
Wholesale bonds	<p>In June 2018, Vector issued a further \$140.0 million of fixed rate wholesale bonds to the existing \$100.0 million wholesale bonds. The bonds have a fixed rate of 4.996% and mature in March 2024.</p>
Senior notes	<p>In October 2017, a total of \$415.8 million (USD \$300.0 million) of USD senior notes were issued. \$277.2 million (USD \$200 million) matures in October 2027 and \$138.6 million (USD \$100.0 million) matures in October 2029.</p> <p>In October 2014, \$150.0 million (USD \$130.0 million) of USD senior notes were issued and matures in October 2021.</p> <p>In December 2010, \$250.5 million (USD \$182.0 million) of USD senior notes were issued and matures in December 2022.</p> <p>\$296.6 million (USD \$195 million) of USD senior notes are due to be repaid in September 2019. Vector has bank facilities to provide liquidity cover for the repayment.</p>
Floating rate notes	<p>The \$350.0 million floating rate notes are credit wrapped by MBIA Insurance Corporation.</p>
Unsubordinated fixed rate bonds	<p>On 27 May 2019, the group raised \$250.0 million of unsubordinated bonds with a fixed rate of 3.45% maturing on 27 May 2025.</p>
Medium term notes	<p>The \$285.6 million medium term notes were repaid in January 2019 using existing facilities.</p>
Covenants	<p>All borrowings are unsecured and are subject to negative pledge arrangements and various lending covenants. These have all been met for the years ended 30 June 2019 and 30 June 2018.</p>

**19. Derivatives and hedge accounting**

	CASH FLOW HEDGES		FAIR VALUE HEDGES		COST OF HEDGING		TOTAL	
	2019 \$M	2018 \$M	2019 \$M	2018 \$M	2019 \$M	2018 \$M	2019 \$M	2018 \$M
<b>Derivative assets</b>								
Cross currency swaps	–	–	116.0	56.8	(6.7)	(1.7)	109.3	55.1
Interest rate swaps	–	1.4	–	–	–	–	–	1.4
Forward exchange contracts	–	0.1	–	–	–	–	–	0.1
<b>Total</b>	–	1.5	116.0	56.8	(6.7)	(1.7)	109.3	56.6
<b>Derivative liabilities</b>								
Cross currency swaps	–	(65.9)	(4.9)	(0.4)	0.1	0.5	(4.8)	(65.8)
Interest rate swaps	(78.2)	(51.0)	–	–	–	–	(78.2)	(51.0)
Forward exchange contracts	(0.1)	(0.2)	–	–	–	–	(0.1)	(0.2)
<b>Total</b>	(78.3)	(117.1)	(4.9)	(0.4)	0.1	0.5	(83.1)	(117.0)

**Key observable market data for fair value measurement**

	2019	2018
<b>Foreign currency exchange (FX) rates as at 30 June</b>		
NZD-GBP FX rate	Not applicable	0.5123
NZD-USD FX rate	0.6719	0.6766
<b>Interest rate swap rates</b>		
NZD	1.36% to 1.80%	1.89% to 3.03%
USD	1.74% to 2.40%	2.09% to 2.97%
GBP	Not applicable	0.50% to 1.64%

	2019 \$M	2018 \$M
<b>Sensitivity to changes in market rates</b>		
<b>Impact on comprehensive income:</b>		
<b>Sensitivity to change in interest rates</b>		
-1% change in interest rates	(44.9)	(35.3)
+1% change in interest rates	42.5	33.9
<b>Sensitivity to change in foreign exchange rates</b>		
-10% change in foreign exchange rates	1.0	(8.0)
+10% change in foreign exchange rates	(1.0)	7.9
<b>Impact on profit or loss:</b>		
<b>Sensitivity to change in interest rates</b>		
-1% change in interest rates	(1.1)	(0.4)
+1% change in interest rates	1.3	0.3
<b>Sensitivity to change in foreign exchange rates</b>		
-10% change in foreign exchange rates	(3.6)	–
+10% change in foreign exchange rates	5.1	0.1

## 19. Derivatives and hedge accounting CONTINUED

### Policies

Vector initially recognises derivatives at fair value on the date the derivative contract is entered into, and subsequently they are re-measured to their fair value at each balance date. All derivatives are classified as level 2 on the fair value hierarchy explained in Note 20.

Fair value is calculated as the present value of the estimated future cash flows based on observable interest yield curves and/or foreign exchange market prices. The carrying values of the financial instruments are the fair values excluding any interest receivable or payable, which is separately presented in the balance sheet in other receivables or other payables.

The resulting gain or loss on re-measurement is recognised in profit or loss immediately, unless the derivative is designated and effective as a hedging instrument, in which case the timing of recognition in profit or loss depends on the nature of the designated hedge relationship.

Vector designates certain derivatives as either:

- Fair value hedges (of the fair value of recognised assets or liabilities or firm commitments); or
- Cash flow hedges (of highly probable forecast transactions).

At inception each transaction is documented, detailing:

- The economic relationship and the hedge ratio between hedging instruments and hedged items;
- The risk management objectives and strategy for undertaking the hedge transaction; and
- The assessment (initially and on an ongoing basis) of whether the derivatives that are used in the hedging transaction are highly effective in offsetting changes in fair values or cash flows of hedged items.

The underlying risk of the derivative contracts is identical to the hedged risk component (i.e. the interest rate risk and the foreign exchange risk) therefore the group has established a one-to-one hedge ratio.

Hedge accounting is discontinued when the hedge instrument expires or is sold, terminated, exercised, or no longer qualifies for hedge accounting.

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### Fair value hedges

Vector has entered into cross currency interest rate swaps (the hedging instruments) to hedge the interest rate risk and foreign currency risk (the hedged risk) arising in relation to its USD senior notes (the hedged items). These transactions have been designated into fair value hedges.

The following are recognised in profit or loss:

- The change in fair value of the hedging instruments; and
- The change in fair value of the underlying hedged items attributable to the hedged risk.

Once hedging is discontinued, the fair value adjustment to the carrying amount of the hedged item arising from the hedged risk is amortised through profit or loss from that date through to maturity of the hedged item.

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## 19. Derivatives and hedge accounting

### CONTINUED

#### Cash flow hedges

Vector has entered into interest rate swaps (the hedging instruments) to hedge the variability in cash flows arising from interest rate movements in relation to its NZD floating rate notes.

The effective portion of changes in the fair value of the hedging instruments are recognised in other comprehensive income.

The following are recognised in profit or loss:

- any gain or loss relating to the ineffective portion of the hedging instrument; and
- fair value changes in the hedging instrument previously accumulated in other comprehensive income, in the periods when the hedged item is recognised in profit or loss.

Once hedging is discontinued, any cumulative gain or loss previously recognised in other comprehensive income is recognised in profit or loss either:

- at the same time as the forecast transaction; or
- immediately if the transaction is no longer expected to occur.

#### Market rate sensitivity

All derivatives are measured at fair value. A change in the market data used to determine fair value will have an impact on Vector's financial statements.

The table on page 80 shows the sensitivity of the financial statements to a range of possible changes in the market data at balance date.

#### Rights to offset

Vector enters into derivative transactions under International Swaps and Derivatives Association (ISDA) master agreements. The ISDA agreements do not meet the criteria for offsetting in the balance sheet for accounting purposes. This is because Vector does not have any currently legally enforceable right to offset recognised amounts. Under the ISDA agreements the right to offset is enforceable only on the occurrence of future events such as a default on the bank loans or other credit events. The potential net impact of this offsetting is disclosed in column 'amount after applying rights of offset under ISDA agreements.' Vector does not hold and is not required to post collateral against its derivative positions.

	2019 \$M		2018 \$M	
	DERIVATIVES POSITION AS PER BALANCE SHEET	AMOUNT AFTER APPLYING RIGHTS OF OFFSET UNDER ISDA AGREEMENTS	DERIVATIVES POSITION AS PER BALANCE SHEET	AMOUNT AFTER APPLYING RIGHTS OF OFFSET UNDER ISDA AGREEMENTS
Derivative assets	109.3	60.0	56.6	10.6
Derivative liabilities	(83.1)	(33.8)	(117.0)	(71.0)
<b>Net amount</b>	<b>26.2</b>	<b>26.2</b>	<b>(60.4)</b>	<b>(60.4)</b>

**19. Derivatives and  
hedge accounting  
CONTINUED**

**19.1 Effects of hedge accounting on the financial position and performance**

The tables below demonstrate the impact of hedged items and the hedging instruments designated in hedging relationships:

	FACE VALUE \$M	WEIGHTED AVERAGE RATE \$M	CARRYING AMOUNT ASSETS/ (LIABILITIES) \$M	CHANGE IN FAIR VALUE USED FOR MEASURING INEFFECTIVE- NESS \$M	HEDGING (GAIN) OR LOSS RECOGNISED IN CASH FLOW HEDGE RESERVE \$M	HEDGE INEFFECTIVE- NESS RECOGNISED IN PROFIT OR LOSS \$M	(GAIN) OR LOSS RECOGNISED IN COST OF HEDGING \$M
<b>Cash flow hedges</b>							
<b>2019</b>							
<b>Interest risk</b>							
Hedged item: NZD floating rate exposure on borrowings	(1,070.0)			(80.1)			
Hedging instrument: Interest rate swaps	(1,450.0)	3.8%	(78.2)	(78.2)	78.2	-	-
					<b>Total</b>	<b>-</b>	
<b>Cash flow hedges</b>							
<b>2018</b>							
<b>Interest risk</b>							
Hedged item: NZD floating rate exposure on borrowings	(790.0)			(49.0)			
Hedging instrument: Interest rate swaps	(1,100.0)	4.2%	(49.6)	(49.6)	49.6	-	-
<b>Interest and exchange risk</b>							
Hedged item: GBP fixed rate exposure on borrowings	(285.6)			(66.2)			
Hedging instrument: Cross currency swaps	(285.6)	10.8%	(65.6)	(65.9)	4.8	-	(0.3)
					<b>Total</b>	<b>-</b>	

The NZD floating rate exposure includes \$350.0 million from the floating rate notes (2018: \$350.0 million) and \$720.0 million arising from hedging the USD senior bonds (2018: \$440.0 million), as allowable under NZ IFRS 9.

The interest rate swaps include \$380.0 million of forward starting swaps (2018: \$310.0 million).

**19. Derivatives and  
hedge accounting  
CONTINUED**
**19.1 Effects of hedge accounting on the financial position and performance CONTINUED**

Fair value hedges	FACE VALUE \$M	WEIGHTED AVERAGE RATE \$M	ACCUM- ULATED FAIR VALUE HEDGE ADJUSTMENTS \$M	CARRYING AMOUNT ASSETS/ (LIABILITIES) \$M	CHANGE IN FAIR VALUE OF THE HEDGED ITEM \$M	CHANGE IN FAIR VALUE OF THE HEDGING INSTRUMENT \$M	CHANGE IN VALUE IN COST OF HEDGING \$M
<b>2019</b>							
<b>Interest and exchange risk</b>							
Hedged item: USD fixed rate exposure on borrowings	(1,112.9)		(109.7)	(1,220.5)	(57.2)		
Hedging instrument: Cross currency swaps	(1,112.9)	floating		104.5		54.7	(5.1)
				<b>Total</b>	<b>(57.2)</b>	<b>54.7</b>	

Fair value hedges	FACE VALUE \$M	WEIGHTED AVERAGE RATE \$M	ACCUM- ULATED FAIR VALUE HEDGE ADJUSTMENTS \$M	CARRYING AMOUNT ASSETS/ (LIABILITIES) \$M	CHANGE IN FAIR VALUE OF THE HEDGED ITEM \$M	CHANGE IN FAIR VALUE OF THE HEDGING INSTRUMENT \$M	CHANGE IN VALUE IN COST OF HEDGING \$M
<b>2018</b>							
<b>Interest and exchange risk</b>							
Hedged item: USD fixed rate exposure on borrowings	(1,112.9)		(52.6)	(1,162.9)	(29.1)		
Hedging instrument: Cross currency swaps	(1,112.9)	floating		55.0		32.2	1.8
				<b>Total</b>	<b>(29.1)</b>	<b>32.2</b>	

Hedging instruments and hedged items are included in the line items "Derivatives" and "Borrowings" respectively in the balance sheet. Ineffectiveness is the sum of the change in fair value of the hedged item and the change in fair value of the hedging instrument. The source of ineffectiveness is largely due to counterparty credit risk on the derivative instruments. Hedge ineffectiveness is included in the "Fair value change on financial instruments" in the profit or loss.

**19. Derivatives and  
hedge accounting  
CONTINUED**

**19.2 Reconciliation of  
changes in hedge reserves**

Hedge reserves	CASHFLOW HEDGE RESERVE \$M	COST OF HEDGING \$M	TOTAL \$M
<b>2019</b>			
<b>Opening balance</b>	<b>39.3</b>	<b>0.8</b>	<b>40.1</b>
Hedging gains or losses recognised in OCI	52.2	5.4	57.6
Transferred to profit or loss	(28.4)	–	(28.4)
Recognised as basis adjustment to non-financial assets	–	–	–
Deferred tax on change in reserves	(6.7)	(1.5)	(8.2)
<b>Closing balance</b>	<b>56.4</b>	<b>4.7</b>	<b>61.1</b>
<hr/>			
Hedge reserves	CASHFLOW HEDGE RESERVE \$M	COST OF HEDGING \$M	TOTAL \$M
<b>2018</b>			
<b>Opening balance</b>	<b>47.2</b>	<b>1.8</b>	<b>49.0</b>
Hedging gains or losses recognised in OCI	33.2	(1.4)	31.8
Transferred to profit or loss	(44.4)	–	(44.4)
Recognised as basis adjustment to non-financial assets	0.2	–	0.2
Deferred tax on change in reserves	3.1	0.4	3.5
<b>Closing balance</b>	<b>39.3</b>	<b>0.8</b>	<b>40.1</b>

**20. Financial risk  
management**

Policies

**Fair value measurement hierarchy**

Financial instruments measured at fair value are classified according to the following levels:

**Level 1:** Quoted prices (unadjusted) in active markets for identical assets or liabilities; or

**Level 2:** Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (prices) or indirectly (derived from prices); or

**Level 3:** Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

**Risk management framework**

Vector has a comprehensive treasury policy, approved by the Board, to manage financial risks arising from business activity. The policy outlines the objectives and approach that the group applies to manage:

- Interest rate risk;
- Credit risk;
- Liquidity risk;
- Foreign exchange risk; and
- Funding risk.

For each risk type, any position outside the policy limits requires the prior approval of the Board. Each risk is monitored on a regular basis and reported to the board.

## 20. Financial risk management

### CONTINUED

#### 20.1 Interest rate risk

Interest rate exposure 2019	< 1 YEAR \$M	1 – 2 YEARS \$M	2 – 5 YEARS \$M	> 5 YEARS \$M	TOTAL \$M
Interest rate exposure: borrowings	1,041.6	–	947.7	665.8	2,655.1
Derivative contracts:					
Interest rate swaps	(1,150.0)	450.0	320.0	380.0	–
Cross currency swaps	816.3	–	(400.5)	(415.8)	–
<b>Net interest rate exposure</b>	<b>707.9</b>	<b>450.0</b>	<b>867.2</b>	<b>630.0</b>	<b>2,655.1</b>

Interest rate exposure 2018	< 1 YEAR \$M	1 – 2 YEARS \$M	2 – 5 YEARS \$M	> 5 YEARS \$M	TOTAL \$M
Interest rate exposure: borrowings	745.6	296.6	707.7	655.8	2,405.7
Derivative contracts:					
Interest rate swaps	(1,070.0)	(30.0)	790.0	310.0	–
Cross currency swaps	1,112.9	(296.6)	(400.5)	(415.8)	–
<b>Net interest rate exposure</b>	<b>788.5</b>	<b>(30.0)</b>	<b>1,097.2</b>	<b>550.0</b>	<b>2,405.7</b>

#### Policies

Vector is exposed to interest rate risk through its borrowing activities.

Interest rate exposures are managed primarily by entering into derivative contracts. The main objectives are to minimise the cost of total borrowings, control variations in the interest expense of the borrowings from year to year, and where practicable to match the interest rate risk profile of the borrowings with the risk profile of the group's assets.

The Board has set and actively monitors maximum and minimum limits for the net interest rate exposure profile.

#### 20.2 Credit risk

#### Policies

Credit risk represents the risk of cash flow losses arising from counterparty defaults. Vector is exposed to credit risk in the normal course of business from:

- Trade receivable transactions with business and mass market residential customers; and
- Financial instruments transactions with financial institutions.

The carrying amounts of financial assets represent the group's maximum exposure to credit risk.

The group has credit policies in place to minimise the impact of exposure to credit risk and associated financial losses:

- The Board must approve placement of cash, short-term cash deposits or derivatives with financial institutions whose credit rating is less than A+. As at 30 June 2019, all financial instruments are held with financial institutions with credit rating above A+;
- The Board sets limits and monitors exposure to financial institutions; and
- Exposure is spread across a range of financial institutions. Where we deem there is credit exposure to energy retailers and customers, the group minimises its risk by performing credit evaluations and/or requiring a bond or other form of security.

**20. Financial risk management**  
**CONTINUED**

**20.3 Liquidity risk**

<b>Contractual cash flows maturity profile</b>	<b>PAYABLE &lt; 1 YEAR \$M</b>	<b>PAYABLE 1 – 2 YEARS \$M</b>	<b>PAYABLE 2 – 5 YEARS \$M</b>	<b>PAYABLE &gt; 5 YEARS \$M</b>	<b>TOTAL CONTRACTUAL CASH FLOWS \$M</b>
<b>2019</b>					
<b>Non-derivative financial liabilities</b>					
Trade payables	154.6	–	–	–	154.6
Contract liabilities	9.7	9.6	19.0	2.2	40.5
Lease liabilities	9.0	6.9	16.3	19.7	51.9
Borrowings: interest	89.4	74.8	147.0	74.4	385.6
Borrowings: principal	685.2	350.0	1,011.6	696.5	2,743.3
<b>Derivative financial (assets)/liabilities</b>					
Cross currency swaps: inflow	(332.3)	(33.8)	(532.0)	(512.2)	(1,410.3)
Cross currency swaps: outflow	326.1	25.8	458.1	484.2	1,294.2
Forward exchange contracts: inflow	(13.0)	–	–	–	(13.0)
Forward exchange contracts: outflow	13.1	–	–	–	13.1
<b>Net settled derivatives</b>					
Interest rate swaps	29.7	22.6	28.8	6.2	87.3
<b>Group contractual cash flows</b>	<b>971.5</b>	<b>455.9</b>	<b>1,148.8</b>	<b>771.0</b>	<b>3,347.2</b>

<b>Contractual cash flows maturity profile</b>	<b>PAYABLE &lt; 1 YEAR \$M</b>	<b>PAYABLE 1 – 2 YEARS \$M</b>	<b>PAYABLE 2 – 5 YEARS \$M</b>	<b>PAYABLE &gt; 5 YEARS \$M</b>	<b>TOTAL CONTRACTUAL CASH FLOWS \$M</b>
<b>2018</b>					
<b>Non-derivative financial liabilities</b>					
Trade payables	160.3	–	–	–	160.3
Contract liabilities	8.5	10.7	22.4	2.6	44.2
Borrowings: interest	109.1	82.6	161.8	91.2	444.7
Borrowings: principal	334.5	288.2	1,118.3	683.4	2,424.4
<b>Derivative financial (assets)/liabilities</b>					
Cross currency swaps: inflow	(291.7)	(330.0)	(546.2)	(524.3)	(1,692.2)
Cross currency swaps: outflow	349.7	332.2	498.3	530.9	1,711.1
Forward exchange contracts: inflow	(8.4)	–	–	–	(8.4)
Forward exchange contracts: outflow	8.5	–	–	–	8.5
<b>Net settled derivatives</b>					
Interest rate swaps	21.0	22.1	13.3	(0.8)	55.6
<b>Group contractual cash flows</b>	<b>691.4</b>	<b>405.8</b>	<b>1,267.9</b>	<b>783.1</b>	<b>3,148.2</b>

The above table shows the timing of non-discounted cash flows for all financial instrument liabilities and derivatives.

The cash flows for capital bonds, included in borrowings, are disclosed as payable within 2 – 5 years as the next election date set for the capital bonds is 15 June 2022 and the bonds have no contractual maturity date.

**Policies**

Vector is exposed to liquidity risk where there is a risk that the group may encounter difficulty in meeting its day to day obligations due to the timing of cash receipts and payments.

The objective is to ensure that adequate liquid assets and funding sources are available at all times to meet both short term and long term commitments. The board has set a minimum headroom requirement for committed facilities over Vector's anticipated 18 month peak borrowing requirement.

At balance date, in addition to short-term deposits, Vector has access to undrawn funds of \$585.0 million (2018: \$545.0 million).

## 20. Financial risk management

### CONTINUED

#### 20.4 Foreign exchange risk

##### Policies

Vector is exposed to foreign exchange risk through its borrowing activities, foreign currency denominated expenditure, and through our Australian subsidiaries.

Foreign exchange exposure is primarily managed through entering into derivative contracts.

The Board requires that all significant foreign currency borrowings and expenditure are hedged into NZD at the time of commitment to drawdown or when the exposure is highly probable. Hence, at balance date there is no significant exposure to foreign currency risk.

#### 20.5 Funding risk

##### Policies

Funding risk is the risk that Vector will have difficulty refinancing or raising new debt on comparable terms to existing facilities. The objective is to spread the concentration of risk so that if an event occurs the overall cost of funding is not unnecessarily increased. Details of borrowings are shown in Note 18.

The Board has set the maximum amount of debt that may mature in any one financial year.

## 21. Cash flows

### 21.1 Reconciliation of net profit/(loss) to net cash flows from/(used in) operating activities

Reconciliation of net profit/(loss) to net cash flows from/(used in) operating activities	2019 \$M	2018 \$M
Net profit/(loss) for the period	84.0	149.8
<b>Items classified as investing activities</b>		
Non-cash items classified as investing activities	(3.4)	12.8
Other items classified as investing activities	1.6	(0.1)
Net loss/(gain) on sale of investments	-	(1.1)
	(1.8)	11.6
<b>Items classified as financing activities</b>		
Items associated with lease liabilities	1.5	-
<b>Non-cash items</b>		
Depreciation and amortisation	246.8	225.9
Non-cash portion of interest costs (net)	(5.5)	1.7
Fair value change on financial instruments	2.5	(3.1)
Associates (share of net (profit)/loss)	(0.6)	1.5
Impairment	46.6	-
Increase/(decrease) in deferred tax	11.6	8.6
Increase/(decrease) in provisions	(4.2)	21.4
Other non-cash items	(1.6)	(2.4)
	295.6	253.6
<b>Changes in assets and liabilities</b>		
Trade and other payables	(12.4)	0.9
Contract liabilities	(5.2)	11.2
Contract assets	0.3	(3.6)
Inventories	3.2	(0.3)
Trade and other receivables	2.8	(0.1)
Income tax	(19.9)	(33.2)
	(31.2)	(25.1)
<b>Net cash flows from/(used in) operating activities</b>	<b>348.1</b>	<b>389.9</b>

## 21. Cash flows CONTINUED

### 21.2 Reconciliation of movement of liabilities to cash flows arising from financing activities

Reconciliation of movement of liabilities to cash flows arising from financing activities	LEASE LIABILITIES	BORROWINGS	DERIVATIVES	TOTAL
<b>As at 30 June 2018</b>	–	2,395.3	60.4	2,455.7
Adoption of IFRS 16	40.9	–	–	40.9
<b>Balance at 1 July 2018</b>	40.9	2,395.3	60.4	2,496.6
Net draw downs	–	249.4	–	249.4
Lease liabilities payments	(6.2)	–	–	(6.2)
<b>Financing cash flows</b>	(6.2)	249.4	–	243.2
Cost of debt raising	–	(3.3)	–	(3.3)
Fair value changes	–	118.2	(86.6)	31.6
Borrowing fees paid	–	(4.4)	–	(4.4)
Amortisation of debt raising costs	–	6.5	–	6.5
Premium released	–	(0.7)	–	(0.7)
ROU asset additions	5.8	–	–	5.8
Other	(0.6)	–	–	(0.6)
<b>As at 30 June 2019</b>	39.9	2,761.0	(26.2)	2,774.7

### 21.3 Cash and cash equivalents

#### Policies

Cash and cash equivalents are carried at amortised cost less an allowance for expected credit losses. Cash and cash equivalents includes deposits that are on call.

## 22. Equity

### 22.1 Share Capital

#### Shares

The total number of authorised and issued shares is 1,000,000,000 (2018: 1,000,000,000).

All ordinary issued shares are fully paid, have no par value and carry equal voting rights and equal rights to a surplus on winding up of the parent.

At balance date 132,035 shares (2018: 86,148) are allocated to the employee share purchase scheme.

### 22.2 Capital Management

#### Policies

Vector's objectives in managing capital are:

- To safeguard the ability of entities within the group to continue as a going concern;
- To provide an adequate return to shareholders by pricing products and services commensurate with the level of risk; and
- Maintain an investment grade credit rating.

Vector manages and may adjust its capital structure in light of changes in economic conditions and for the risk characteristics of the underlying assets. To achieve this Vector may:

- Adjust its dividend policy;
- Return capital to shareholders;
- Issue new shares; or
- Sell assets to reduce debt.

Vector primarily monitors capital on the basis of the gearing ratio.

## 22. Equity CONTINUED

### 22.3 Financial ratios

	2019 \$M 12 MONTHS	2018 \$M 12 MONTHS
<b>Earnings per share</b>		
Net profit attributable to owners of the parent	82.9	148.2
Weighted average ordinary shares outstanding during the period (number of shares)	999,889,595	998,370,185
Total earnings per share	8.3 cents	14.8 cents
<b>Net tangible assets per share</b>		
Net assets attributable to owners of the parent	2,332.4	2,440.4
Less total intangible assets	(1,354.9)	(1,398.2)
<b>Total net tangible assets</b>	<b>977.5</b>	<b>1,042.2</b>
Ordinary shares outstanding (number of shares)	999,867,965	999,913,852
	<b>97.8 cents</b>	<b>104.2 cents</b>
<b>Economic net debt to economic net debt plus adjusted equity ratio ("gearing ratio")</b>		
Face value of borrowings	2,655.1	2,405.7
Less cash and cash equivalents	(27.6)	(27.9)
<b>Economic net debt</b>	<b>2,627.5</b>	<b>2,377.8</b>
Total equity	2,349.4	2,457.9
Adjusted for hedge reserves	61.1	40.1
<b>Adjusted equity</b>	<b>2,410.5</b>	<b>2,498.0</b>
<b>Economic net debt plus adjusted equity</b>	<b>5,038.0</b>	<b>4,875.8</b>
	<b>52.2%</b>	<b>48.8%</b>

### 22.4 Reserves

#### Hedge reserves

Hedge reserves comprise the cash flow hedge reserve and cost of hedging.

The cash flow hedge reserve records the effective portion of changes in the fair value of derivatives that are designated as cash flow hedges.

The gain or loss relating to the ineffective portion is recorded in profit or loss within interest costs (net).

During the year, \$28.4 million (2018: \$44.4 million) was transferred from the cash flow hedge reserve to interest expense.

Cost of hedging records the change in the fair value of the cost to convert foreign currency into New Zealand dollars as required under NZ IFRS 9.

#### Other reserves

Other reserves comprise:

- A share-based payment reserve relating to the employee share purchase scheme. When shares are vested to the employee, the reserve is offset with a reduction in treasury shares.
- A foreign currency translation reserve to record exchange differences arising from the translation of the group's foreign operations.
- A reserve recording the group's share of its associate's other comprehensive income.
- A reserve to record the fair value movements in the group's investments in financial assets.

### 23. Related party transactions

	2019 \$M	2018 \$M
<b>Transactions with Entrust</b>		
Dividends paid	122.0	122.0
<b>Transactions with associates and joint operations</b>		
Purchases of electricity and steam from KEJV	8.0	8.9
Sale of gas to KEJV	9.8	9.4
Sales of operations and maintenance services to KEJV	1.9	1.7
Sales of administration and other services to KEJV	0.1	0.1
Purchase of vegetation management services from Tree Scape Limited	9.3	7.4
Directors' fees received from Tree Scape Limited	0.1	0.1
<b>Transactions with key management personnel</b>		
Salary and other short-term employee benefits	5.1	5.4
Directors' fees	0.9	0.9

Related parties      Related parties of the group include the associates and joint operations disclosed in Note 12, the ultimate parent entity (Entrust) and key management personnel (directors and the executive team).

Other      The group may transact on an arms' length basis with companies in which directors have a disclosed interest.

Receivables / (Payables)	2019 \$M	2018 \$M
Tree Scape Limited	(0.4)	–
KEJV	0.3	0.3

### 24. Contingent liabilities

Disclosures      The directors are aware of other claims that have been made against entities of the group and, where appropriate, have recognised provisions for these within Note 17.  
Except for the liability associated with Vector's breaches of electricity network quality measures described in Note 3, no other material contingent liabilities have been identified.

### 25. Events after balance date

Approval      The financial statements were approved by the Board on 22 August 2019.

Final dividend      On 22 August 2019, the Board declared a final and fully imputed dividend for the year ended 30 June 2019 of 8.25 cents per share.  
No adjustment is required to these financial statements in respect of this event.



# Combined Independent Auditor's and Limited Assurance Report

## General

Our assurance procedures consisted of the audit of the consolidated financial statements of Vector Limited and limited assurance procedures on Carbon Baseline presented in Vector Limited's annual report for the period ended 30 June 2019.

## Independent Auditor's Report

To the shareholders of Vector Limited

### Report on the audit of the consolidated financial statements

#### Opinion

In our opinion, the accompanying consolidated financial statements of Vector Limited (the 'company') and its subsidiaries (the 'group') on pages 51 to 91:

- i. present fairly in all material respects the group's financial position as at 30 June 2019 and its financial performance and cash flows for the year ended on that date; and
- ii. comply with New Zealand Equivalents to International Financial Reporting Standards and International Financial Reporting Standards.

We have audited the accompanying consolidated financial statements which comprise:

- the consolidated balance sheet as at 30 June 2019;
- the consolidated statements of profit or loss, other comprehensive income, changes in equity and cash flows for the year then ended; and
- notes, including a summary of significant accounting policies and other explanatory information.

#### Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (New Zealand) ('ISAs (NZ)'). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

We are independent of the group in accordance with Professional and Ethical Standard 1 (Revised) Code of Ethics for Assurance Practitioners issued by the New Zealand Auditing and Assurance Standards Board and the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants ('IESBA Code'), and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code.

Our responsibilities under ISAs (NZ) are further described in the auditor's responsibilities for the audit of the consolidated financial statements section of our report.



Our firm has also provided other services to the group in relation to regulatory assurance services, other assurance services, IT forensic and other forensic services. Subject to certain restrictions, partners and employees of our firm may also deal with the group on normal terms within the ordinary course of trading activities of the business of the group. These matters have not impaired our independence as auditor of the group. The firm has no other relationship with, or interest in, the group.



## Materiality

The scope of our audit was influenced by our application of materiality. Materiality helped us to determine the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and on the consolidated financial statements as a whole. The materiality for the consolidated financial statements as a whole was set at \$9 million determined with reference to a benchmark of group profit before tax. We chose the benchmark because, in our view, this is a key measure of the group's performance.



## Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements in the current period. We summarise below those matters and our key audit procedures to address those matters in order that the shareholders as a body may better understand the process by which we arrived at our audit opinion. Our procedures were undertaken in the context of and solely for the purpose of our statutory audit opinion on the consolidated financial statements as a whole and we do not express discrete opinions on separate elements of the consolidated financial statements.

### The key audit matter

### How the matter was addressed in our audit

1. Capitalisation and asset lives (Property, plant and equipment of \$4,185 million, with additions during the year of \$425 million). Refer to Note 14 of the financial statements.

Capitalisation of costs and useful lives assigned to these assets are a key audit matter due to the significance of property, plant and equipment to the group's business, and due to the judgement involved in determining the carrying value of these assets, principally:

- the decision to capitalise or expense costs relating to the metering, electricity and gas distribution networks. This decision depends on whether the expenditure is considered to enhance the network (and therefore capital), or to maintain the current operating capability of the network (and therefore an expense). There is also judgement when estimating the extent of recovering overhead, particularly involving digital projects; and
- the estimation of the useful life of the asset once the costs are capitalised. Estimated lives range between 2 and

Our audit procedures in this area included, among others:

- examining the operating effectiveness of controls related to the approval of capital projects;
- assessing the nature of capitalised costs by checking a sample of costs to invoice to determine whether the description of the expenditure met the capitalisation criteria in the relevant accounting standards;
- assessing the useful economic lives stated in the accounting policies of the group by comparing to industry benchmarks and our knowledge of the business and its operations; and
- assessing whether the useful economic lives of each individual asset capitalised in the current period was within the stated policies.

We found no material errors in the nature and amount capitalised in the period and that the estimated useful lives of assets were within an acceptable range when compared to those used in the industry.



## The key audit matter

## How the matter was addressed in our audit

100 years, resulting from the diversity of property, plant and equipment across a portfolio of businesses. There is also judgment when estimating asset lives due to the uncertainty of the impact of technological change.

### 2. Impairment assessment of a) the Gas Trading segment b) the Regulated Networks segment and c) the E-Co Products cash generating unit (inclusive of \$1,234 million of goodwill). Refer to Note 13 of the financial statements

We considered the impairment assessment of the Gas Trading segment, including \$157 million of goodwill, to be a key audit matter due to the decreasing margin trading environment.

We considered the impairment assessment of the Regulated Networks segment to be a key audit matter due to the significance of goodwill of \$1,050 million to the financial position of the group and the significant judgment used to estimate future pricing of the regulated revenue streams beyond the timeframe of the current Commerce Commission regulatory price paths.

We considered the impairment assessment of the E-Co Products cash generating unit, including goodwill, to be a key audit matter due to the poor performance in FY19 and underperformance against expectations since its acquisition in FY17.

The procedures we performed to evaluate the impairment assessments included:

- assessing whether the methodology adopted in the discounted cash flow models was consistent with accepted valuation approaches of NZ IAS 36 *Impairment of Assets* and within the energy industry;
- evaluating the significant future cash flow assumptions by comparing to historical trends, customer contracts and supplier agreements, Asset Management Plans, regulatory pricing models and budgets;
- comparing the discount rates applied to the estimated future cash flows and the terminal growth rates to relevant benchmarks using our own valuation specialists;
- challenging the above assumptions and judgements by performing sensitivity analysis, considering a range of likely outcomes based on various scenarios;
- considering actual and possible gas M&A activity in New Zealand and how that informs the carrying value and classification of the Gas Trading segment assets (including goodwill);
- specifically in connection with the E-Co Products impairment charge of \$46.6 million recognised in FY19, evaluating a number of scenarios of expected performance in the 5 year forecast period of the DCF analysis; and
- comparing the group's total net assets as at 30 June 2019 of \$2,349 million to its market capitalisation of \$3,780 million at 30 June 2019 which implied total headroom of \$1,431 million.

For each segment we found the methodology to be consistent with industry norms. We found:

- the discount and terminal growth rates were in an acceptable industry range;
- future cash flow assumptions were supported by comparison to the sources we considered above; and

## The key audit matter

## How the matter was addressed in our audit

### 3. Valuation of investments in the technology segment, as part of the group's strategy to 'Create a New Energy Future'

During the 30 months ending 30 June 2019 the group has invested circa \$270 million in new energy technologies and markets as part of its strategy to 'Create a New Energy Future', including but not limited to:

- acquisitions of E-Co Products group Limited (refer point 2 above) and PowerSmart NZ Limited;
- investment in mPrest Systems (2003) Limited in October 2017; and
- continued investment in developing a presence in the Australian electricity metering market to coincide with changes to the market regulation and structure.

We consider the valuation of investments in new energy technologies and markets to be a key audit matter because of the judgement involved whether through;

- valuing intangible assets and goodwill acquired in a business or asset purchase;
- assessing the fair value of investments, when carried at fair value, in absence of a listed-market reference; or
- considering impairment in markets where the future outcomes are more uncertain than in the group's established businesses.

- the overall comparison of the group's net assets to market capitalisation did not indicate an impairment.

The procedures we performed to conclude on the valuation assessments included:

- evaluating the performance of the Australian metering business, in particular understanding the status and critically challenging the expected future outlook of the group's bids for meter data and deployment contracts with Australian energy retailers;
- considering actual and possible metering M&A activity in Australasia and how that informs the carrying value and classification of the group's metering assets (including goodwill);
- assessing whether there are indicators of impairment in respect of any of these investments; and
- assessing the fair value of mPrest, including various techniques that could be employed as the maturity of mPrest evolves.

We did not identify any material errors in the valuations attributed to the investments in the new non-regulated activities outlined opposite.



## Use of this independent auditor's report

This independent auditor's report is made solely to the shareholders as a body. Our audit work has been undertaken so that we might state to the shareholders those matters we are required to state to them in the independent auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the shareholders as a body for our audit work, this independent auditor's report, or any of the opinions we have formed.



## Responsibilities of the Directors for the consolidated financial statements

The Directors, on behalf of the company, are responsible for:

- the preparation and fair presentation of the consolidated financial statements in accordance with generally accepted accounting practice in New Zealand (being New Zealand Equivalents to International Financial Reporting Standards) and International Financial Reporting Standards;
- implementing necessary internal control to enable the preparation of a consolidated set of financial statements that is fairly presented and free from material misstatement, whether due to fraud or error; and
- assessing the ability to continue as a going concern. This includes disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate or to cease operations, or have no realistic alternative but to do so.



## Auditor's responsibilities for the audit of the consolidated financial statements

Our objective is:

- to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error; and
- to issue an independent auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs NZ will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error. They are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of these consolidated financial statements is located at the External Reporting Board (XRB) website at:

<http://www.xrb.govt.nz/standards-for-assurance-practitioners/auditors-responsibilities/audit-report-1/>

This description forms part of our independent auditor's report.

## Independent Limited Assurance Report

To the Directors of Vector Limited

### Report on the Carbon Baseline

#### Conclusion

Our limited assurance conclusion has been formed on the basis of the matters outlined in this report.

Based on our limited assurance engagement, which is not a reasonable assurance engagement or an audit, nothing has come to our attention that would lead us to believe that the Carbon Baseline, presented in Vector Limited's ('Vector') Annual Report, has not, in all material respects, been prepared in accordance with the Greenhouse Gas Protocol ('the GHG Protocol') for the year ended 30 June 2019



## Information subject to assurance

We have performed an engagement to provide limited assurance that nothing has come to our attention that would lead us to believe Vector's carbon emissions baseline totals ('Carbon Baseline') presented in Vector's Annual Report, has not been prepared, in all material respects, in accordance with the GHG Protocol for the year ended 30 June 2019.

## Criteria

The scope of our limited assurance services was Vector's Carbon Baseline prepared in accordance with the GHG Protocol and presented in Vector's Annual Report for year ended 30 June 2019.

The operations included in the scope were those deemed by Vector to be within their current operational control boundary. The scope of our services excluded greenhouse gas emissions outside of the reporting period and outside of Vector's designated control boundary.

## Standards we followed

We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements (New Zealand) 3000 (Revised) *Assurance Engagements other than audits or reviews of historical financial information* and International Standard on Assurance Engagements (New Zealand) 3410 *Assurance Engagements on Greenhouse Gas Statements*.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. In accordance with those standards we have:

- used our professional judgement to plan and perform the engagement to obtain limited assurance that the Carbon Baseline is 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 the effectiveness of these controls; and
- ensured that the engagement team possess the appropriate knowledge, skills and professional competencies.

The procedures performed in a limited assurance engagement vary in nature and timing from, 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.

## Restriction of distribution and use

Our report should not be regarded as suitable to be used or relied on by any party's other than Vector for any purpose or in any context. Any party other than Vector who obtains access to our report or a copy thereof and chooses to rely on our report (or any part thereof) will do so at its own risk.

To the fullest extent permitted by law, we accept or assume no responsibility and deny any liability to any party other than Vector for our work, for this independent limited assurance report, or for the conclusions we have reached.

Our report is released to Vector on the basis that it shall not be copied, referred to or disclosed, in whole (save for Vector's own internal purposes) or in part, without our prior written consent.

## Directors' responsibility for the Carbon Baseline

The Directors of Vector are responsible for the preparation and fair presentation of the Carbon Baseline, presented in the Annual Report, in accordance with the GHG Protocol. This responsibility includes such internal control as the directors determine is necessary to enable preparation of a Carbon Baseline that is free from material misstatement whether due to fraud or error.



## Our responsibility

Our responsibility is to express a conclusion to the directors on whether anything has come to our attention that would lead us to believe that the Carbon Baseline, presented in Vector's Annual Report, has not been prepared, in all material respects, in accordance with the GHG Protocol.

## Our independence and quality control

We have complied with the independence and other ethical requirements of Professional and Ethical Standard (Revised) issued by the New Zealand Auditing and Assurance Standards Board, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Professional and Ethical Standard 3 (Amended) and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our firm has also provided other services to the group in relation to regulatory assurance services, other assurance services, IT forensic and other forensic services. Subject to certain restrictions, partners and employees of our firm may also deal with the group on normal terms within the ordinary course of trading activities of the business of the group. These matters have not impaired our independence as assurance practitioner of the group. The firm has no other relationship with, or interest in, the group.

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## Other information

The Directors, on behalf of the group, are responsible for the other information. The other information comprises the information included in the group's Annual Report, but does not include consolidated financial statements and our Independent Auditor's Report thereon. Our opinion on the consolidated financial statements does not cover any other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

The engagement partners on the engagement resulting in this Combined Independent Auditor's and Limited Assurance Report are

Malcolm Downes – Audit partner  
Laura Youdan – Assurance partner

For and on behalf of

KPMG  
Auckland

22 August 2019

# statutory information

## **Interests register**

Each company in the group is required to maintain an interests register in which the particulars of certain transactions and matters involving the directors must be recorded. The interests registers for Vector Limited and its subsidiaries are available for inspection at their registered offices.

Particulars of entries in the interests registers made during the year ended 30 June 2019 are set out in this Statutory Information section.

## **Information used by directors**

During the financial year there were no notices from directors of Vector Limited, or any subsidiary, requesting to use information received in their capacity as a director which would not otherwise have been available to them.

## **Indemnification and insurance of directors and officers**

As permitted by the constitution and the Companies Act 1993, Vector Limited has indemnified its directors, and those directors who are directors of subsidiaries against potential liabilities and costs they may incur for acts or omissions in their capacity as directors. In addition, Vector Limited has indemnified certain senior employees against potential liabilities and costs they may incur for acts or omissions in their capacity as employees of Vector Limited, or directors of Vector subsidiaries or associates.

During the financial year, Vector Limited paid insurance premiums in respect of directors and certain senior employees' liability insurance which covers risks normally covered by such policies arising out of acts or omissions of directors and employees in their capacity as such. Insurance is not provided for criminal liability or liability or costs in respect of which an indemnity is prohibited by law.

## **Donations**

Vector Limited made donations of \$615 during the year ended 30 June 2019. Subsidiaries of Vector Limited made donations of \$12,004 during the year ended 30 June 2019.

## **Credit rating**

At 30 June 2019 Vector Limited had a Standard & Poor's credit rating of BBB/stable, and a Moody's credit rating of Baa1/stable.

## **NZX regulation waivers and rulings**

Under a decision dated 22 June 2005 Vector Limited was granted waivers from the requirements of listing rules 3.1.1, 3.1.2, 7.3.3 to 7.3.8, and 9.1.1 to allow its constitution to contain provisions which are not ordinarily contained in the constitution of a company listed by NZX, giving certain approval rights to Entrust. Vector has been given a non-standard designation by NZX due to the inclusion of these provisions in its constitution. Under a decision dated 12 September 2008, Vector Limited was granted a waiver from listing rule 9.3.1 allowing Entrust to vote on shareholder resolutions for director remuneration increases. Under a decision dated 6 October 2006 Vector Limited was granted a waiver from listing rule 3.5.1 permitting payment of director remuneration to board members of Liquigas Limited.

On 1 July 2019 Vector Limited transitioned to updated listing rules. Vector has applied to NZX Regulation to redocument the existing waivers summarised above for the equivalent provisions in the updated listing rules. Until NZX Regulation has finalised this process, Vector Limited is relying on a class waiver dated 19 November 2018 that carries over the waivers to the new listing rules until 30 June 2020.

## **Exercise of NZX powers**

NZX did not exercise any of its powers set out in Listing Rule 5.4.2 (relating to powers to cancel, suspend or censure an issuer) with respect to Vector Limited.

## **Trustees of Entrust**

During the year ended 30 June 2019, Vector Limited made payments to M Buczkowski, J Carmichael and K Sherry, trustees of Entrust (Vector Limited's majority shareholder) totalling \$196,996 in respect of their roles as directors on the Vector Limited board.

## **Subsidiaries and associates**

A list of each of the company's subsidiaries and associates is contained on pages 68 and 69. The company has not gained or lost control of any entity during the year ended 30 June 2019.

**Directors**

The following directors of Vector Limited and current group companies held office as at 30 June 2019 or resigned (R) as a director during the year ended 30 June 2019. Directors marked (A) were appointed during the year.

PARENT	DIRECTORS
Vector Limited	D Bartholomew (R), M Buczkowski (A), J Carmichael (R), A Carter (A), S Krieger (R), J Mason, A Paterson, P Rebstock (A), K Sherry, M Stiassny (R), R Thomson, B Turner (A).

All of the above directors in office at 30 June 2019 are independent directors, except for M Buczkowski and K Sherry who are trustees of Entrust (Vector Limited's majority shareholder).

SUBSIDIARIES	DIRECTORS
Advanced Metering Assets Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Advanced Metering Services Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Arc Innovations Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Cristal Air International Limited	S Mackenzie
E-Co Products Group Limited	S Mackenzie
HRV Australia Pty Limited	S Mackenzie, J Sheridan
HRV Clean Water Limited	S Mackenzie
HRV Filters Limited	S Mackenzie
Liquigas Limited	A Andriopoulos (A), H Blackburn (A), B Boswell (R), A Gilbert (R), L Glover (R), P Goodeve (A), N Hannan (A), E Krogh (A), R Middelbeek (A), D Molloy (R), G O'Brien, J Seymour (R), R Sharp, B Talacek, C Teichert (A) (R), M Trigg
NGC Holdings Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
On Gas Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
PowerSmart NZ Limited	S Mackenzie
Safe Filters Limited	S Mackenzie
Safe Windows Limited	S Mackenzie
SolPho Limited	S Mackenzie
UnitedNetworks Limited	S Mackenzie, D Molloy (R)
Vector Advanced Metering Assets (Australia) Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Vector Advanced Metering Services (Australia) Pty Limited	S Mackenzie, J Sheridan
Vector Communications Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Vector Energy Solutions (Australia) Pty Limited	S Mackenzie, J Sheridan
Vector Energy Solutions Limited	S Mackenzie
Vector ESPS Trustee Limited	S Mackenzie, D Molloy (R)
Vector Gas Trading Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Vector Kapuni Limited	S Mackenzie, D Molloy (R)
Vector Management Services Limited	S Mackenzie, D Molloy (R)
Vector Metering Data Services Limited	J Carmichael (R), J Mason, A Paterson, K Sherry, M Stiassny (R), R Thomson
Ventilation Australia Pty Limited	S Mackenzie, J Sheridan

**Directors  
CONTINUED**

ASSOCIATES	DIRECTORS
Tree Scape Limited	C Baudinet (A), C Beddoe (A), A Botha, E Chignell, S Mackenzie (R), D Molloy (R), K Smith, B Whiddett

Directors' remuneration and value of other benefits received from Vector Limited and current group companies for the year ended 30 June 2019:

DIRECTORS OF VECTOR LIMITED	PAID BY PARENT \$	PAID BY SUBSIDIARIES \$
D Bartholomew (R)	36,032	-
M Buczkowski (A)	59,487	-
J Carmichael (R)	36,859	-
A Carter (A)	16,775	-
S Krieger (R)	36,032	-
J Mason	100,650	-
A Paterson	162,462	-
P Rebstock (A)	21,015	-
K Sherry	100,650	-
M Stiassny (R)	74,040	-
R Thomson	100,650	-
B Turner (A)	21,015	-
	765,667	-

DIRECTORS OF SUBSIDIARIES	PAID BY PARENT \$	PAID BY SUBSIDIARIES \$
A Andriopoulos (A)	-	417*
H Blackburn (A)	-	250*
B Boswell (R)	-	2,079
L Glover (R)	-	2,079
P Goodeve (A)	-	2,500
N Hannan (A)	-	1,409
E Krogh (A)	-	1,630
R Middelbeek (A)	-	417*
D Molloy (R)	-	3,629*
G O'Brien	-	6,250
J Seymour (R)	-	4,750
R Sharp	-	5,000*
B Talacek	-	6,250*
M Trigg	-	44,200
	-	80,860

\* Directors' fees relating to any Vector Limited employee are paid to the company.

**Directors**  
**CONTINUED**
**Directors of Vector Limited**

Entries in the interests register of Vector Limited during the year to 30 June 2019 that are not set out elsewhere in this annual report:

DIRECTOR	ENTITY	POSITION
M Buczkowski	Entrust	Trustee
A Carter	Air New Zealand Limited	Chairman
	ANZ Bank NZ Limited	Director
	Capital Solutions Limited	Advisor
	Capital Education Limited	Advisor
	Fisher & Paykel Healthcare Limited	Chairman
	Fletcher Building Limited	Director
	Loughborough Investments Limited	Director and shareholder
	Maurice Carter Family Trust	Trustee
J Mason	Air New Zealand Limited	Director
	Beloit College, Wisconsin, USA	Trustee
	New Zealand Assets Management Limited	Director
	University of Auckland	Trustee and Adjunct Professor of Management
	Westpac New Zealand Limited	Director
	Zespri Group Limited	Director
A Paterson	AM Paterson Trust	Trustee
	BJ Paterson Trust	Trustee
	Donny Charitable Trust	Trustee
	Forestry Industry Safety Council	Chair
	Health Quality & Safety Commission	Member
	Kiwi Wealth Group	Chair
	Te Aupouri Commercial Development Limited	Chair
	Te Aupouri Fisheries Management Limited	Chair
P Rebstock	Accident Compensation Corporation	Chair
	Auckland District Health Board	Chair (Finance and Assurance Committee)
	Auckland Transport	Director
	Kiwi Group Holdings Limited	Chair
	New Zealand Defence Force Board	Chair
	New Zealand Police	Chair (Women's Advisory Network)
	On Being Bold	Director and shareholder
	Synergia Limited	Advisory board member
	Tonkin & Taylor Limited	Chair (Finance and Risk Committee)
	Ngāti Whātua Ōrākei Whai Maia Limited	Chair

**Directors**  
**CONTINUED**

**Directors of Vector Limited**  
**CONTINUED**

Entries in the interests register of Vector Limited up to 30 June 2019 that are not set out elsewhere in this annual report:  
CONTINUED

<b>DIRECTOR</b>	<b>ENTITY</b>	<b>POSITION</b>
K Sherry	Bell-Booth Sherry Limited	Director and shareholder
	Energy Efficiency and Conservation Authority (EECA)	Director
	Energy Trusts of New Zealand	Chair
	Entrust	Trustee
	Sasha & Otto Limited	Director and shareholder
R Thomson	Calnan Holdings Limited	Director and shareholder
	Energy Trusts of New Zealand	Consultant
	R & M Thomson Holdings Limited	Director and shareholder
B Turner	Electricity Authority's Security and Reliability Council	Member
	Fonterra Co-operative Group Limited	Employee
	The Arapaho Springs Trust	Trustee
	The Arapaho Springs Investment Trust	Trustee
	University of Colorado's JP Morgan Commodity Centre	Advisory board member

The entities listed above against each director may transact with Vector Limited and its subsidiaries in the normal course of business. Auckland based directors (M Buczkowski, A Carter, J Mason, A Paterson, P Rebstock, K Sherry and B Turner) are Vector Limited residential electricity customers.

**Directors of subsidiaries**

There are no entries in the interests register of subsidiaries up to 30 June 2019 that are not set out elsewhere in this annual report.

**Employees**

The number of current employees of the company and the group receiving remuneration and benefits above \$100,000 in the year ended 30 June 2019 are set out in the table below:

CURRENT EMPLOYEES	GROUP	COMPANY
\$100,001 – \$110,000	53	44
\$110,001 – \$120,000	65	47
\$120,001 – \$130,000	55	44
\$130,001 – \$140,000	52	44
\$140,001 – \$150,000	47	37
\$150,001 – \$160,000	28	26
\$160,001 – \$170,000	24	20
\$170,001 – \$180,000	18	16
\$180,001 – \$190,000	19	16
\$190,001 – \$200,000	16	15
\$200,001 – \$210,000	9	7
\$210,001 – \$220,000	9	7
\$220,001 – \$230,000	5	5
\$230,001 – \$240,000	10	6
\$240,001 – \$250,000	5	3
\$250,001 – \$260,000	4	3
\$260,001 – \$270,000	3	3
\$270,001 – \$280,000	4	4
\$280,001 – \$290,000	3	2
\$290,001 – \$300,000	4	3
\$300,001 – \$310,000	2	1
\$310,001 – \$320,000	3	2
\$320,001 – \$330,000	2	2
\$330,001 – \$340,000	2	2
\$340,001 – \$350,000	1	–
\$350,001 – \$360,000	2	2
\$360,001 – \$370,000	1	1
\$370,001 – \$380,000	1	–
\$380,001 – \$390,000	2	1
\$390,001 – \$400,000	3	3
\$450,001 – \$460,000	2	1
\$470,001 – \$480,000	1	–
\$490,001 – \$500,000	1	1
\$540,001 – \$550,000	1	1
\$550,001 – \$560,000	1	1
\$740,001 – \$750,000	1	1
\$830,001 – \$840,000	1	1
\$1,670,001 – \$1,680,000	1	1
	461	373

**Employees  
CONTINUED**

The number of former employees of the company and the group receiving remuneration and benefits above \$100,000 in the year ended 30 June 2019 are set out in the table below:

FORMER EMPLOYEES (INCLUDING ANY TERMINATION PAYMENTS)	GROUP	COMPANY
\$100,001 – \$110,000	5	3
\$110,001 – \$120,000	5	4
\$120,001 – \$130,000	3	2
\$130,001 – \$140,000	7	3
\$140,001 – \$150,000	5	3
\$150,001 – \$160,000	4	4
\$160,001 – \$170,000	1	1
\$170,001 – \$180,000	3	1
\$180,001 – \$190,000	2	1
\$190,001 – \$200,000	1	–
\$200,001 – \$210,000	1	–
\$220,001 – \$230,000	2	2
\$260,001 – \$270,000	1	1
\$310,001 – \$320,000	1	1
\$420,001 – \$430,000	1	–
\$690,001 – \$700,000	1	1
	43	27

No employee of the group appointed as a director of a subsidiary or associate company receives or retains any remuneration or benefits as a director. The remuneration and benefits of such employees, received as employees, are included in the relevant bandings disclosed above, where the annual remuneration and benefits exceed \$100,000.

**Bondholder statistics**

NZDX debt securities distribution as at 30 June 2019:

**5.70% capital bonds**

RANGE	NUMBER OF BONDHOLDERS	PERCENTAGE OF BONDHOLDERS	NUMBER OF BONDS HELD	PERCENTAGE OF BONDS HELD
5,000 – 9,999	645	16.43%	3,490,000	1.14%
10,000 – 49,999	2,482	63.24%	49,851,700	16.23%
50,000 – 99,999	493	12.56%	28,285,300	9.21%
100,000 – 499,999	277	7.06%	43,144,000	14.04%
500,000 – 999,999	8	0.20%	4,759,000	1.55%
1,000,000 plus	20	0.51%	177,675,000	57.83%
	3,925	100.00%	307,205,000	100.00%

Twenty largest registered capital bond holders as at 30 June 2019:

BONDHOLDER	NUMBER OF BONDS HELD	PERCENTAGE OF BONDS HELD
Forsyth Barr Custodians Limited <1-CUSTODY>	30,973,000	10.08%
FNZ Custodians Limited	24,399,000	7.94%
Custodial Services Limited <A/C 3>	20,984,000	6.83%
Custodial Services Limited <A/C 4>	14,251,000	4.64%
Custodial Services Limited <A/C 2>	13,855,000	4.51%
JBWere (NZ) Nominees Limited <NZ RESIDENT A/C>	8,528,000	2.78%
Investment Custodial Services Limited <A/C C>	7,805,000	2.54%
Custodial Services Limited <A/C 1>	7,797,000	2.54%
Custodial Services Limited <A/C 18>	7,137,000	2.32%
Masfen Securities Limited	5,980,000	1.95%
Citibank Nominees (New Zealand) Limited – NZCSD <CNOM90>	4,450,000	1.45%
Forsyth Barr Custodians Limited <ACCOUNT 1 E>	4,140,000	1.35%
Tappenden Holdings Limited	3,856,000	1.26%
NZPT Custodians (Grosvenor) Limited – NZCSD <NZPG40>	3,016,000	0.98%
Francis Horton Tuck + Catherine Ann Tuck <PUKETIHI A/C>	2,300,000	0.75%
FNZ Custodians Limited <DRP NZ A/C>	2,295,000	0.75%
Custodial Services Limited <A/C 16>	2,151,000	0.70%
FNZ Custodians Limited <DTA NON RESIDENT A/C>	2,076,000	0.68%
Fletcher Building Educational Fund Limited	2,000,000	0.65%
National Nominees New Zealand Limited – NZCSD <NNLZ90>	1,980,000	0.64%
	169,973,000	55.34%

**Bondholder statistics  
CONTINUED**

**3.45% senior bonds**

RANGE	NUMBER OF BONDHOLDERS	PERCENTAGE OF BONDHOLDERS	NUMBER OF BONDS HELD	PERCENTAGE OF BONDS HELD
5,000 – 9,999	108	14.61%	659,000	0.26%
10,000 – 49,999	472	63.88%	9,558,000	3.82%
50,000 – 99,999	85	11.50%	5,321,000	2.13%
100,000 – 499,999	47	6.36%	7,538,000	3.02%
500,000 – 999,999	10	1.35%	6,468,000	2.59%
1,000,000 plus	17	2.30%	220,456,000	88.18%
	739	100.00%	250,000,000	100.00%

Twenty largest registered senior bond holders as at 30 June 2019:

BONDHOLDER	NUMBER OF BONDS HELD	PERCENTAGE OF BONDS HELD
Forsyth Barr Custodians Limited <1-CUSTODY>	40,288,000	16.12%
National Nominees New Zealand Limited – NZCSD <NNLZ90>	25,500,000	10.20%
FNZ Custodians Limited	23,430,000	9.37%
HSBC Nominees (New Zealand) Limited O/A Euroclear Band -NZCSD <HKBN95>	15,000,000	6.00%
Custodial Services Limited <A/C 4>	12,857,000	5.14%
Custodial Services Limited <A/C 3>	10,737,000	4.29%
BNP Paribas Nominees (NZ) Limited – NZCSD <BPSS40>	9,610,000	3.84%
Citibank Nominees (New Zealand) Limited – NZCSD <CNOM90>	8,930,000	3.57%
BNP Paribas Nominees (NZ) Limited - NZCSD <COGN40>	8,800,000	3.52%
Custodial Services Limited <A/C 2>	8,436,000	3.37%
Investment Custodial Services Limited <A/C C>	8,072,000	3.23%
Custodial Services Limited <A/C 1>	5,362,000	2.14%
HSBC Nominees (New Zealand) Limited – NZCSD <HKBN90>	5,320,000	2.13%
TEA Custodians Limited Client Property Trust Account – NZCSD <TEAC40>	4,840,000	1.94%
Generate Kiwisaver Public Trust Nominees Limited <NZCSD> <NZPT44>	4,620,000	1.85%
New Zealand Methodist Trust Association	4,000,000	1.60%
Custodial Services Limited <A/C 18>	3,782,000	1.51%
JBWere (NZ) Nominees Limited <NZ RESIDENT A/C>	3,257,000	1.30%
New Zealand Permanent Trustees Limited – NZCSD <NZPT43>	3,019,000	1.21%
Mint Nominees Limited – NZCSD <NZP440>	2,875,000	1.15%
	208,735,000	83.48%

**Shareholder statistics**

Twenty largest registered shareholders as at 30 June 2019:

SHAREHOLDER	ORDINARY SHARES HELD	PERCENTAGE OF ORDINARY SHARES HELD
Entrust	751,000,000	75.10%
Citibank Nominees (New Zealand) Limited	15,111,505	1.51%
Custodial Services Limited <A/C 3>	13,190,342	1.32%
Custodial Services Limited <A/C 4>	11,470,163	1.15%
FNZ Custodians Limited	10,625,500	1.06%
HSBC Nominees (New Zealand) Limited A/C State Street	8,558,994	0.86%
Custodial Services Limited <A/C 2>	8,276,709	0.83%
HSBC Nominees (New Zealand) Limited	7,775,060	0.78%
Accident Compensation Corporation	5,515,187	0.55%
Investment Custodial Services Limited <A/C C>	5,018,690	0.50%
JBWere (NZ) Nominees Limited <NZ Resident A/C	4,771,157	0.48%
JP Morgan Chase Bank NA NZ Branch-Segregated Clients Acct	4,600,433	0.46%
Custodial Services Limited <A/C 18>	4,555,095	0.45%
National Nominees New Zealand Limited	3,182,390	0.32%
ANZ Custodial Services New Zealand Limited	2,986,149	0.30%
New Zealand Depository Nominee Limited <A/C 1 CASH ACCOUNT>	2,876,214	0.29%
Custodial Services Limited <A/C 1>	2,760,970	0.27%
BNP Paribas Nominees (NZ) Limited	2,590,056	0.26%
Forsyth Barr Custodians Limited <1-CUSTODY>	2,369,941	0.24%
BNP Paribas Nominees (NZ) Limited	1,810,464	0.18%
	869,045,019	86.91%

Substantial product holders as at 30 June 2019:

SHAREHOLDER	NUMBER OF RELEVANT INTEREST VOTING PRODUCTS HELD	PERCENTAGE OF VOTING PRODUCTS HELD
Entrust	751,000,000	75.10%

Alastair Bell, Michael Buczkowski, William Cairns, Paul Hutchison and Karen Sherry are the registered holders of the shares held by Entrust.

**Shareholder statistics**  
**CONTINUED**

As at 30 June 2019, voting products issued by Vector Limited totalled 1,000,000,000 ordinary shares.

Ordinary shares distribution as at 30 June 2019:

RANGE	NUMBER OF SHAREHOLDERS	PERCENTAGE OF SHAREHOLDERS	NUMBER OF SHARES HELD	PERCENTAGE OF SHARES HELD
1 – 499	6,332	20.63%	1,982,061	0.20%
500 – 999	3,196	10.41%	2,496,330	0.25%
1,000 – 4,999	15,676	51.08%	28,485,966	2.85%
5,000 – 9,999	2,727	8.88%	18,350,173	1.83%
10,000 – 49,999	2,504	8.16%	45,071,141	4.51%
50,000 – 99,999	159	0.52%	10,311,072	1.03%
100,000 plus	99	0.32%	893,303,257	89.33%
	30,693	100.00%	1,000,000,000	100.00%

Analysis of shareholders as at 30 June 2019:

SHAREHOLDER TYPE	NUMBER OF SHAREHOLDERS	PERCENTAGE OF SHAREHOLDERS	NUMBER OF SHARES HELD	PERCENTAGE OF SHARES HELD
Entrust	1	0.00%	751,000,000	75.10%
Companies	940	3.06%	10,471,367	1.05%
Individual Holders	16,436	53.55%	54,197,407	5.42%
Joint	9,056	29.51%	41,728,319	4.17%
Nominee Companies	588	1.92%	136,899,754	13.69%
Other	3,672	11.96%	5,703,153	0.57%
	30,693	100.00%	1,000,000,000	100.00%

The following current directors of the parent are holders (either beneficially or non-beneficially) of Vector Limited ordinary shares as at 30 June 2019:

DIRECTOR	NUMBER OF SHARES
M Buczkowski	1,322
A Carter (as a shareholder of Loughborough Investments Limited)	10,000
J Mason (as a trustee of the Trumbull Trust)	18,500
A Paterson (as trustee of the A M Paterson Trust)	10,000
A Paterson (as trustee of the B J Paterson Trust)	10,700
K Sherry	840
R Thomson	45,000

Alastair Bell, Michael Buczkowski, William Cairns, Paul Hutchison and Karen Sherry are the registered holders of the 751,000,000 ordinary shares held by Entrust. Michael Buczkowski and Karen Sherry are directors of Vector Limited.

The following disclosures are made pursuant to section 148 of the Companies Act 1993, in relation to dealings during the year ended 30 June 2019 by directors of Vector Limited in the ordinary shares of Vector Limited:

There were no acquisitions or disposals of relevant interests.

## Financial calendar

### 2019

Final dividend paid	16 September
Annual meeting	23 September

### 2020

First quarter operating statistics	October
Second quarter operating statistics	January
Half year result and interim report	February
Interim dividend*	April
Third quarter operating statistics	April
Fourth quarter operating statistics	July
Full year result and annual report	August
Final dividend*	September

\* Dividends are subject to Board determination.

## Investor information

Ordinary shares in Vector Limited are listed and quoted on the New Zealand Stock Market (NZSX) under the company code VCT. Vector also has capital bonds and unsubordinated fixed rate bonds listed and quoted on the New Zealand Debt Market (NZDX). Current information about Vector's trading performance for its shares and bonds can be obtained on the NZX website at [www.nzx.com](http://www.nzx.com). Further information about Vector is available on our website [www.vector.co.nz](http://www.vector.co.nz).

## Directory

### Registered office

Vector Limited  
101 Carlton Gore Road  
Newmarket  
Auckland 1023  
New Zealand  
Telephone 64-9-978 7788  
Facsimile 64-9-978 7799  
[www.vector.co.nz](http://www.vector.co.nz)

### Postal address

PO Box 99882  
Newmarket  
Auckland 1149  
New Zealand

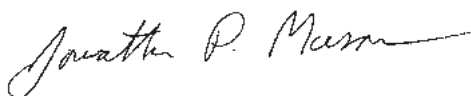
### Investor enquiries

Telephone 64-9-213 5179  
Email: [investor@vector.co.nz](mailto:investor@vector.co.nz)

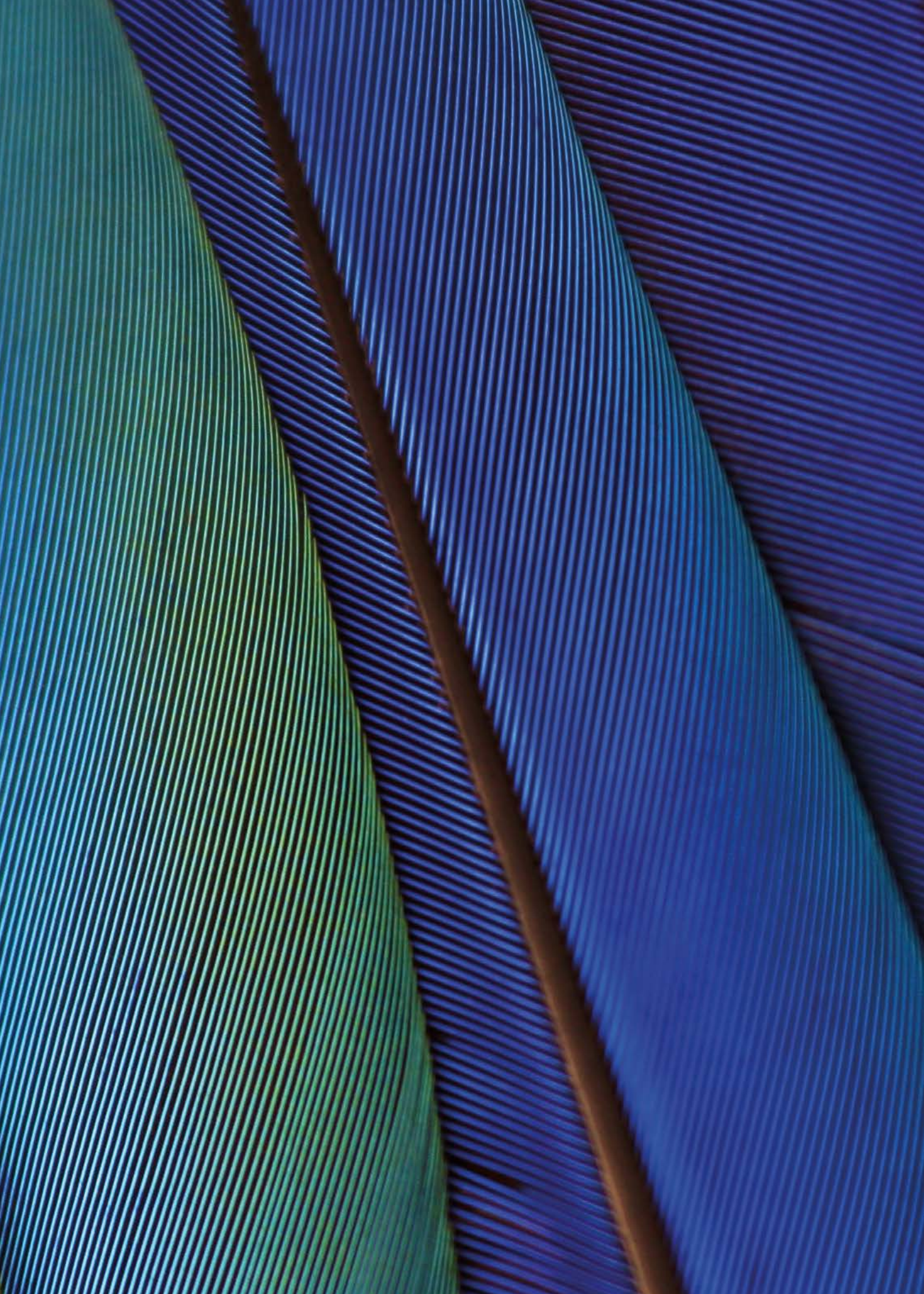
This annual report is dated  
22 August 2019 and signed  
on behalf of the Board by:



Dame Alison Paterson  
Chair



Jonathan Mason  
Director



creating a new  
energy future