Company Name	Vector
For Year Ended	31 March 2019

Schedule 14 Mandatory Explanatory Notes

(Guidance Note: This Microsoft Word version of Schedules 14, 14a and 15 is from the Electricity Distribution Information Disclosure Determination 2012 – as amended and consolidated 3 April 2018. Clause references in this template are to that determination)

1. This schedule requires EDBs to provide explanatory notes to information provided in accordance with clauses 2.3.1, 2.4.21, 2.4.22, and subclauses 2.5.1(1)(f),and 2.5.2(1)(e).

2. This schedule is mandatory—EDBs must provide the explanatory comment specified below, in accordance with clause 2.7.1. Information provided in boxes 1 to 11 of this schedule is part of the audited disclosure information, and so is subject to the assurance requirements specified in section 2.8.

3. Schedule 15 (Voluntary Explanatory Notes to Schedules) provides for EDBs to give additional explanation of disclosed information should they elect to do so.

Return on Investment (Schedule 2)

4. In the box below, comment on return on investment as disclosed in Schedule 2. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 1: Explanatory comment on return on investment

The return on investment (ROI) for Vector's Electricity Distribution Business (EDB) is 5.74%. This is lower than the 67th percentile vanilla WACC of 7.19% and the ex-ante ROI of 7.17% generated using the Commission's DPP estimates for that year. The key factors depressing the returns are a lower actual revaluation CPI and lower actual lines revenue relative to the DPP forecast.

EDBs should have an ex-ante expectation of earning the 67^{th} percentile vanilla WACC over a regulatory period. Persistent and asymmetric forecast errors (CPI and other regulated income) are significantly undermining this expectation. Since 2013 significant regulatory forecasting inaccuracies have resulted in around $270m in lost revenue for Vector.

Regulatory Profit (Schedule 3)

5. In the box below, comment on regulatory profit for the disclosure year as disclosed in Schedule 3. This comment must include-

   5.1 a description of material items included in other regulated income (other than gains / (losses) on asset disposals), as disclosed in 3(i) of Schedule 3

   5.2 information on reclassified items in accordance with subclause 2.7.1(2).

Box 2: Explanatory comment on regulatory profit

There has been no re-classification of items in the disclosure year.

The value of "other regulated income (other than gains / (losses) on asset disposals)" is nil.

Merger and acquisition expenses (3(iv) of Schedule 3)

6. If the EDB incurred merger and acquisitions expenditure during the disclosure year, provide the following information in the box below-

   6.1 information on reclassified items in accordance with subclause 2.7.1(2)

   6.2 any other commentary on the benefits of the merger and acquisition expenditure to the EDB.

Box 3: Explanatory comment on merger and acquisition expenditure

No merger or acquisition expenditure has been incurred during the disclosure year.

There has been no re-classification of items in the disclosure year.

Value of the Regulatory Asset Base (Schedule 4)

7. In the box below, comment on the value of the regulatory asset base (rolled forward) in Schedule 4. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 4: Explanatory comment on the value of the regulatory asset based (rolled forward)

Roll forward of regulatory asset base (RAB)

The value of the RAB has been determined by rolling forward the initial RAB with allowances made for additions, disposals, depreciation and revaluation in accordance with the current IM determination.

ACAM (avoidable cost allocation methodology) as a cost allocation option has been removed by the Commission and replaced by ABAA (accounting-based allocation approach) for the disclosure year. The result is a $7.7m reduction in RAB. The rationales for changes have been disclosed in the Schedule 5e.

Assets acquired from related parties

These were predominantly for batteries and inverters ($9.0m) acquired from Vector Energy Solutions.

Reclassified items

Vector adopted NZ IFRS 16 *Leases,* effective from 1 July 2018. NZ IFRS 16 introduces a new class of assets – Right of Use assets (ROU). As a result, the leases allocated to the EDB ($12.5m) are now classified as non-network assets on the basis that ROU assets do not constitute a separate class of network assets.

Regulatory tax allowance: disclosure of permanent differences (5a(i) of Schedule 5a)

8. In the box below, provide descriptions and workings of the material items recorded in the following asterisked categories of 5a(i) of Schedule 5a -

   8.1 Income not included in regulatory profit / (loss) before tax but taxable;

   8.2 Expenditure or loss in regulatory profit / (loss) before tax but not deductible;

   8.3 Income included in regulatory profit / (loss) before tax but not taxable;

   8.4 Expenditure or loss deductible but not in regulatory profit / (loss) before tax.

Box 5: Regulatory tax allowance: permanent differences

There are no material items in the disclosure year.

Regulatory tax allowance: disclosure of temporary differences (5a(vi) of Schedule 5a)

9. In the box below, provide descriptions and workings of material items recorded in the asterisked category 'Tax effect of other temporary differences' in 5a(vi) of Schedule 5a.

Box 6: Tax effect of other temporary differences (current disclosure year)

There are no material items in the disclosure year.

Cost allocation (Schedule 5d)

10. In the box below, comment on cost allocation as disclosed in Schedule 5d. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 7: Cost allocation

There has been no re-classification of items in relation to cost allocation in the disclosure year.

ABAA has been applied to allocate not directly attributable costs in the disclosure year in accordance with the current IM determination.

The “Property Plant & Equipment (PPE)” asset and labour hours allocators are the proxy allocators used to allocate not directly attributable corporate shared costs, where causal factors are not available. A causal relationship sometimes cannot be established for the non-directly attributable costs because the shared nature of these services means there is no single cost driver leading to a cost being incurred.

Labour hours

Vector has undertaken a survey of estimated time spent on regulatory activities for regulatory cost allocation purposes. Not all shared service functions are able to estimate time spent servicing each business due to their activities ever changing or because activities are primarily provided on a group basis.

PPE

A significant proportion of Vector’s activities are focused on managing physical assets. Therefore, an assumption can be made that the greater the amount of physical assets a business has (measured by value) the greater share of corporate shared costs required to support that business. The PPE method is considered a more appropriate approach than revenue as it better reflects the group’s operations.

The rationale behind the use of each proxy allocation is based on a thoughtful analysis of each cost item.

Asset allocation (Schedule 5e)

11. In the box below, comment on asset allocation as disclosed in Schedule 5e. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 8: Commentary on asset allocation

There has been no re-classification of items in relation to asset allocation in the disclosure year.

Vector applied the Accounting Based Asset Allocator (ABAA) to allocate non-directly attributable network asset values in the current disclosure year in accordance with the IM determination. Vector has determined and reported two allocators for shared network assets this disclosure year: a fair value ratio and a capacity ratio. The fair value ratio is determined by reference to an estimated fair value of the non-directly attributable portion of a shared network asset. The capacity ratio is an engineering-based ratio by reference to an asset's total service capacity. Determining which allocator to use involves an understanding of the nature of the shared network asset concerned and the substance of the non-electricity distribution services that the asset provides. These allocators are proxy allocators. A causal relationship sometimes cannot be established for the non-directly attributable network asset values because the shared nature of these assets means there is no single factor influencing the utilisation of the asset.

Determining the non-network shared assets for the regulated and non-regulated businesses follows a similar process to operating cost allocation.

Capital Expenditure for the Disclosure Year (Schedule 6a)

12. In the box below, comment on expenditure on assets for the disclosure year, as disclosed in Schedule 6a. This comment must include-

    12.1 a description of the materiality threshold applied to identify material projects and programmes described in Schedule 6a;

    12.2 information on reclassified items in accordance with subclause 2.7.1(2).

Box 9: Explanation of capital expenditure for the disclosure year

The materiality threshold applied to identify material projects is the level of audit materiality applied by Vector's regulatory auditors ($10.8m).

There were no material projects or programmes during the period.

Reclassified items

Vector adopted NZ IFRS 16 *Leases,* effective from 1 July 2018. As a result, these leases allocated to the EDB are now classified as non-network asset expenditure.

Vector has also re-categorised some projects to reflect the true primary driver of the capital expenditure. $10m of projects are now classified as Reliability, Safety and Environment, whereas they were disclosed as other categories in previous disclosures.

Operational Expenditure for the Disclosure Year (Schedule 6b)

13. In the box below, comment on operational expenditure for the disclosure year, as disclosed in Schedule 6b. This comment must include-

13.1 Commentary on assets replaced or renewed with asset replacement and renewal operational expenditure, as reported in 6b(i) of Schedule 6b;

13.2 Information on reclassified items in accordance with subclause 2.7.1(2);

13.3 Commentary on any material atypical expenditure included in operational expenditure disclosed in Schedule 6b, a including the value of the expenditure the purpose of the expenditure, and the operational expenditure categories the expenditure relates to.

Box 10: Explanation of operational expenditure for the disclosure year

Asset replacement and renewal operational expenditure is largely incurred to rectify non-compliance with maintenance standards as identified from planned equipment inspections.

This expenditure includes the replacement of equipment components that do not extend the life of the asset. The major spend areas are maintenance on zone substations, grounds and buildings, sub-transmission network cables, and overhead lines.

Atypical expenditure:

There was no atypical expenditure during the period which exceeded our materiality threshold, as described above.

Reclassified items

All expenses associated with operating leases between 1 April 2018 and 30 June 2018, were treated as operating expenses; Due to the adoption of NZ IFRS 16, these leases were then capitalised as right of use assets on 1 July 2018.

Variance between forecast and actual expenditure (Schedule 7)

14. In the box below, comment on variance in actual to forecast expenditure for the disclosure year, as reported in Schedule 7. This comment must include information on reclassified items in accordance with subclause 2.7.1(2).

Box 11: Explanatory comment on variance in actual to forecast expenditure

CAPEX

Overall actual capex expenditure was 7% ($17m) higher than forecast with key drivers being:

- Consumer Connections increased by 8% ($5m) due to a large volume of Customer Substations and Capacity Change projects. In addition, there was an increase in activity at the large Westfield shopping development in Newmarket.

- System Growth decreased by 41% ($19m) This is due to some projects being delayed, some having to be re-scoped and re-designed (e.g. Orewa Switchboard and 2nd Transformer and Switchboard for Spur Road) and re-categorisation of projects into Other Reliability.

- Asset Replacement increased 13% ($11m) due to projects progressing faster, more pole replacements and increased asset replacements after the April 2018 storm.

- Reliability, Safety and Environment increased by 231% ($11.2m) largely due to the re-categorisation of projects into Other Reliability ($9.5m) after re-assessing the primary driver for CAPEX spend. The remainder of the increase was due to new initiatives focused on improving electricity network reliability and SAIDI performance.

- Non-Network increased by 49% ($9.1m) mainly due to the IFRS lease changes ($12.5m).

OPEX

Overall actual OPEX expenditure was 5% or $6m lower than forecast with key drivers being:

- Service Interruptions and Emergencies are broadly in line with forecast.

- Vegetation Management has increased due to the increased focus on SAIDI minimisation.

- Routine and Corrective Maintenance and Inspection is lower mainly due to the timing of planned maintenance. This has been partially offset by expenditure on initiatives to reduce the level of SAIDI and SAIFI as well as address the root causes of SAIDI and SAIFI.

- Asset Replacement and Renewal is lower mainly due to lower corrective maintenance spend because of FSP resources being redirected to more permanent solutions that are capital in nature.

- System Operations and Network Support is higher mainly due to the inclusion of the SAIDI breach penalty. 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.

- Business Support is lower mainly due to a lower actual cost allocation percentage and a reduction in corporate property related costs as a result of the adoption of IFRS 16.

Information relating to revenues and quantities for the disclosure year

15. In the box below provide-

    15.1 a comparison of the target revenue disclosed before the start of the disclosure year, in accordance with clause 2.4.1 and subclause 2.4.3(3) to total billed line charge revenue for the disclosure year, as disclosed in Schedule 8; and

    15.2 explanatory comment on reasons for any material differences between target revenue and total billed line charge revenue.

Box 12: Explanatory comment relating to revenue for the disclosure year

Vector's target revenue was $619m, as included in Vector's Electricity Pricing Methodology Disclosure for the disclosure year, pursuant to clause 2.4.1(1) and 2.4.3(3) of the current ID Determination.

Total billed line charge revenue was $632m, as disclosed in Schedule 8. The variance between total billed line charges and target revenue is $13m or (2.2%). The variance is mainly driven by colder spells in some winter months, (in particular June 2018) resulting in higher volumes and demands than forecast.

Network Reliability for the Disclosure Year (Schedule 10)

16. In the box below, comment on network reliability for the disclosure year, as disclosed in Schedule 10.

Box 13: Commentary on network reliability for the disclosure year
Vector has completed Schedule 10 and disclosed information consistent with the normalisation requirements contained within the current ID Determination. The disclosed SAIDI and SAIFI values are not aligned with those presented in Vector's 2019 Compliance Statement (which is based on the Electricity Default Price-Quality Path Determination 2015). This is in line with guidance from the Commerce Commission's Issues Register item #447. 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. The details on Vector's network reliability, including actions and initiatives to improve reliability performance, can also be found in Vector's 2019 Compliance Statement: https://www.vector.co.nz/about-us/regulatory/disclosures-electricity/price-quality-path Vector has elected to report normalised SAIFI and SAIDI values in Schedule 10 for each sub-network based on normalised assessment datasets for each sub-network, with boundary values calculated using the reference dataset for the sub-networks. This is one of two options the Commission provides for EDBs to report on sub-network reliability (ref: External Issues Register response #231). Vector has chosen this option as the methodology provides more meaningful analysis of the actual performance of each sub-network.

Insurance cover

17. In the box below, provide details of any insurance cover for the assets used to provide electricity distribution services, including-

    17.1 The EDB's approaches and practices in regard to the insurance of assets used to provide electricity distribution services, including the level of insurance;

    17.2 In respect of any self-insurance, the level of reserves, details of how reserves are managed and invested, and details of any reinsurance.

Box 14: Explanation of insurance cover

Vector Limited takes insurance cover for group assets. These policies cover material damage, business interruption and contract works insurance.

Insurance costs are allocated to the Electricity Distribution Business using the proportion these assets represent relative to Vector's overall insured assets.

In respect of the insurance cover the information reflects "insurance years" running from 1 September to 31 August each year and premium costs are allocated to the appropriate regulatory years to derive the premium values.

Amendments to previously disclosed information

18. In the box below, provide information about amendments to previously disclosed information disclosed in accordance with clause 2.12.1 in the last 7 years, including:

    18.1 a description of each error; and

    18.2 for each error, reference to the web address where the disclosure made in accordance with clause 2.12.1 is publicly disclosed.

Box 15: Disclosure of amendment to previously disclosed information

N/A

Company Name	Vector
For Year Ended	31 March 2019

Schedule 15 Voluntary Explanatory Notes

(In this Schedule, clause references are to the Electricity Distribution Information Disclosure Determination 2012 – as amended and consolidated 3 April 2018.)

1. This schedule enables EDBs to provide, should they wish to-

    1.1 additional explanatory comment to reports prepared in accordance with clauses 2.3.1, 2.4.21, 2.4.22, 2.5.1 and 2.5.2;

    1.2 information on any substantial changes to information disclosed in relation to a prior disclosure year, as a result of final wash-ups.

2. Information in this schedule is not part of the audited disclosure information, and so is not subject to the assurance requirements specified in section 2.8.

3. Provide additional explanatory comment in the box below.

Box 1: Schedule 8

There are now four volumetric consumption price component codes -AICO, -24UC, -OFPK and -PEAK whereas in previous years' Schedule 8 disclosures, the consumption billed quantities and line charge revenues have been aggregated together under the price component heading kWh.

There is also a change in how the transmission line charge revenue is calculated at a price category level. It is now calculated by using the pass-through prices (as published in Vector's 2019 Compliance Statement) to determine the pass-through revenue for each price category. This change has been done to more accurately reflect the transmission component of the pass-through prices to each price category code.

This year:

Price category transmission line charge revenue = Total transmission costs * (Price category pass-through revenue / total pass-through revenue)

Previous years:

Price category transmission line charge revenue = Total transmission costs * (Price category total line charge revenue / total line charge revenue)

Box 2: Schedule 9c

For RY 2019 Vector has updated the boundaries used to calculate the urban and rural split of assets. We have used the NZ Urban Rural Indicator boundaries 2019 from Statistics New Zealand. The result of the update has been a minor re-classification of assets from Rural to Urban when compared to 2018. This is reflective of the change in land use.

Box 3: Schedule 10 SAIFI

Vector has presented SAIFI data for the year ending 31 March 2019 calculated on the same basis as prior years.

Vector uses an 'HV event' based approach to calculate SAIFI -

- Vector defines an HV event as a planned or unplanned occurrence on the HV (>=11kV) network.
- During the restoration of an HV event there may be a series of actions or activities which impact customer supply while restoration occurs. These activities are treated within the single HV event.

In calculating SAIFI for an HV event, Vector uses the number of unique customers affected during that HV event.