

Company Name	EA Networks
For Year Ended	31 March 2018

Schedule 14 Mandatory Explanatory Notes

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 12 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

ROI reflecting all revenue earned comparable to a post-tax WACC is 0.14% below the 75th percentile estimate of 5.72%.

No items have been reclassified in accordance with subclause 2.7.1 (2).

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

Other regulatory income	\$'000
Loss and constraint payments	686
New connection fees	267
Other income	34
Sale of scrap	160
Total other regulatory income	1,147

The loss on sale mainly relates to end of life overhead assets being replaced with underground assets.

No items have been reclassified items in accordance with subclause 2.7.1(2).

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 costs have been incurred concerning merger and acquisition expenses.

No items have been reclassified in accordance with subclause 2.7.1(2)

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)

4(i): Regulatory Asset Base Value (Rolled Forward)

All assets commissioned, decommissioned and depreciated in the year have followed the requirements of the determination.

Items have been reclassified in accordance with subclause 2.7.1(2)

EA Networks has reviewed the categorisation of RAB assets into Information Disclosure headings as part of a change to a new asset management system. This review has highlighted a small number of assets which required re-categorisation within the RAB. The reclassification of these assets has been disclosed within the asset category transfers in line 106 of schedule 4, and has a nil impact on the closing RAB value.

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

8.1 Income not included in regulatory profit / (loss) before tax but taxable	\$'000
Capital Contributions	188
Total	188

Prior to 2014 EA Networks accounted for capital contributions using the 10 year amortisation method for tax. From the start 2014 capital contributions are offset against the cost of the asset which they are constructed for tax. The \$188k represents amortisation of capital contributions paid prior to the start of 2014 year.

8.2 Expenditure or loss in regulatory profit / (loss) before tax but not deductible	\$'000
Movement in Holiday pay and ACC accrual	8
Loss on PPE sold	184
Total	192

8.3 Income included in regulatory profit / (loss) before tax but not taxable	\$'000
Total	-

8.4 Expenditure or loss deductible but not in regulatory profit / (loss) before tax	\$'000
Tax loss on assets sold	398
Total	398

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)

	<u>2017</u>	<u>2018</u>
Employee entitlements	272	284
Provision for ACC	14	10
	<hr/>	<hr/>
	286	294
Less 2017		286
Movement		<hr/>
		8

Related party transactions: disclosure of related party transactions (Schedule 5b)

10. In the box below, provide descriptions of related party transactions beyond those disclosed on Schedule 5b including identification and descriptions as to the nature of directly attributable costs disclosed under subclause 2.3.6(1)(b).

Box 7: Related party transactions

EA Networks is a co-operative company who has regular related party transactions with its shareholders which may include the purchase of and sale of goods and services, all of which are carried out at market value.

Work undertaken by EA Networks Field Services for the EDB is carried out at cost with no profit being created as the result of the transaction.

EA Networks own a fibre network, part of which is rented by the power network on the same commercial terms and conditions as it offers third parties.

Cost allocation (Schedule 5d)

11. 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 8: Cost allocation

EA Networks has employed "ACAM" allocation method.

No items have been reclassified in accordance with subclause 2.7.1(2)

Asset allocation (Schedule 5e)

12. 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 9: Commentary on asset allocation

EA Networks has employed “ACAM” allocation method.

No items have been reclassified in accordance with subclause 2.7.1(2)

Capital Expenditure for the Disclosure Year (Schedule 6a)

13. In the box below, comment on expenditure on assets for the disclosure year, as disclosed in Schedule 6a. This comment must include-
- 13.1 a description of the materiality threshold applied to identify material projects and programmes described in Schedule 6a;
 - 13.2 information on reclassified items in accordance with subclause 2.7.1(2),

Box 10: Explanation of capital expenditure for the disclosure year

Section 13.1 Materiality Threshold

A two-step principle based test is used to define materiality associated with schedule 6a.

- 1) The risk associated with the project in question: projects with notable risk are detailed in the schedule.
- 2) Projects which require notable financial investment are detailed individually: Currently notable financial investment is defined as above \$100k.

Section 13.2 Reclassified items

No items have been reclassified in accordance with subclause 2.7.1.(2).

Operational Expenditure for the Disclosure Year (Schedule 6b)

14. In the box below, comment on operational expenditure for the disclosure year, as disclosed in Schedule 6b. This comment must include-
- 14.1 Commentary on assets replaced or renewed with asset replacement and renewal operational expenditure, as reported in 6b(i) of Schedule 6b;
 - 14.2 Information on reclassified items in accordance with subclause 2.7.1(2);
 - 14.3 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 11: Explanation of operational expenditure for the disclosure year

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

Expenditure is made up as follows

Asset replacement and renewal	\$'000's
Overhead assets	380
Distribution Substations and Transformers	381
Distribution Switchgear	76
Zone substations	427
Underground assets	166
Overhead line removal	123
Total spend on assets replacement and renewal	1,553

Routine and corrective maintenance and inspection costs are managed at “Network opex” level, refer to section 7(iii) operational expenditure – S7 Actual vs Forecast, rather than the components contained within “Network opex”. Network opex costs for the year were in-line with the AMP forecast.

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

No items have been reclassified in accordance with subclause 2.7.1.(2).

14.3 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.

There was no atypical expenditure in operational expenditure for the year.

Variance between forecast and actual expenditure (Schedule 7)

- 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 12: Explanatory comment on variance in actual to forecast expenditure**7(i): Revenue**

Actual Line charges revenue was within 1% of target.

7(ii): Expenditure on Assets

Consumer connection expenditure on assets			
	Target (\$000)	Actual (\$000)	% variance
Urban	429	297	(31%)
Capacity alterations	49	189	286%
Rural LV	215	222	3%
Rural transformers	1,380	1,056	(23%)
Rural alterations for safety	917	414	(55%)
Consumer connection expenditure	2,990	2,178	(27%)
Less capital contributions	550	185	(66%)
Customer connection less capital contributions	2,440	1,993	(18%)

Customer connection expenditure for the AMP was set using historical trends and other information which EA Networks was aware of. Several factors beyond EA Networks control affect the actual number of and amount spent on new connections. For example, milk prices influence dairy farming customer connections.

System growth expenditure on assets			
	Target (\$000)	Actual (\$000)	% variance
Subtransmission	-	45	-
Zone substations	962	32	(97%)
Distribution and LV lines	389	507	30%
Distribution and LV cables	91	561	516%
Distribution substations and transformers	380	1,892	398%
Distribution switchgear	1,357	101	(93%)
Other network assets	133	-	(100%)
System growth expenditure	3,312	3,138	(5%)
Capital contributions funding system growth	-	-	-
System growth less capital contributions	3,312	3,138	(5%)

The budget is managed as a combined budget rather than individual parts of system growth. Overall total expenditure was in line with the budget.

Assets renewal and replacement expenditure on assets			
	Target (\$000)	Actual (\$000)	% variance
Subtransmission	3,222	584	(82%)
Zone substations	20	40	101%
Distribution and LV lines	2,492	1,885	(24%)
Distribution and LV cables	3,934	5,142	31%
Distribution substations and transformers	511	236	(54%)
Distribution switchgear	214	511	139%
Other network assets	6	-	(100%)
System growth expenditure	10,399	8,398	(19%)
Capital contributions funding system growth	220	8	(96%)
System growth less capital contributions	10,179	8,390	(18%)

The lower than planned investment in asset renewal and replacements reflects the deferral of project 00510 66kV UG New EGN-ASH Cable to 2018-2019 due to unforeseen issues with the local council.

Asset Relocation

A third party made a request to have a substation relocated, which was not allowed for in the AMP.

Quality of Supply

RSE Quality of supply capital investment			
	Target (\$000)	Actual (\$000)	% variance
[2016-2017][358] ZSS TIN 22/11 Transformer and Switchgear		95	-
[2017-2018] Rural Ring Main Unit Installations	860	730	(15%)
[2017-2018] SCADA - Distribution Automatiom	276	252	(9%)
[2017-2018] ZSS - Replace Beckwith VRR - Dorie, Coldstream, Wakanui	87	52	(40%)
[2017-2018] ZSS MTV & TIN - Neutral Switch	73	10	(86%)
[2017-2018] 11kV Network Centres - Tinwald	422	-	(100%)
[2017-2018] 66/22kV OH New River Piles Ashburton River North Branch	74	66	(11%)
[2017-2018] ZSS Synchphasors Stage 1 and stage 2	75	-	(100%)
[2017-2018] 22kV UG New Tinwald ZS Hinds Hwy, Fords Rd Tie Cable	212	331	56%
	2,079	1,536	(26%)
Other	175	132	(24%)
Total RSE Quality of supply capital investment	2,254	1,668	(26%)

[2017-2018] Rural Ring Main unit's installations. Lower than expected number of units completed and commissioned in the year.

[2017-2018] SCADA Distribution Automation. Part of this project was deferred to next year.

[2017-2018] ZSS - Replace Beckwith VRR - Dorie, Coldstream, Wakanui. Part of the project was deferred to next year.

[2017-2018] ZSS MTV & TIN Neutral Switch. This project was late starting due to supply issue with the associated equipment.

[2017-2018] 11kV Network Centres – Tinwald. Equipment ordered for this project was not delivered on time.

[2017-2018] 66/22kV OH New River Piles Ashburton River North Branch. Weather conditions allowed the project to be completed quicker than planned.

[2017-2018] ZSS Synchophasors Stage 1 and stage 2. This project has been delayed due to Transpower delays.

[2017-2018] 22kV UG New Tinwald ZSS Hinds Hwy, Fords Rd Tie Cable. The scope this project changed to include parts of the new Tinwald substation.

Other Reliability, Safety and Environment

R S E Other capital investment			
	Target (\$000)	Actual (\$000)	% variance
[2017-2018] ZZ Substation Surveillance Programme	17	9	(48%)
[2017-2018] Earthing upgrade	369	26	(93%)
[2017-2018] UG Conversion of State Highway one crossing	87	-	(100%)
	473	35	(93%)
Other	76	14	(81%)
	549	49	(91%)

[2017-2018] ZZ substations surveillance programme. Partly delay to next year due to resourcing issue

[2017-2018] Earthing upgrade. Resourcing issues has deferred the programme to next year.

Expenditure on non-network asset

Typical

Typical			
	Target (\$000)	Actual (\$000)	% variance
[2017-2018] Routine Vehicles	299	162	(46%)
[2017-2018] Routine Info Tech	100	81	(19%)
[2017-2018] Routine Building Work	50	13	(75%)
[2017-2018] Routine Plant	10	3	(74%)
All other items	50	-	(100%)
	509	259	(49%)

The typical capital investment budget is made up of estimated costs to be incurred. Actual typical investment is only undertaken as required.

A-Typical

Typical	Target (\$000)	Actual (\$000)	% variance
[2017-2018] DMR Repeater Stations for Rakaia Gorge	60	5	(92%)
[2017-2018] Software - ICP Management	320	257	(20%)
[2016-2018] Software - ERP Development	150	291	94%
[2017-2018] Software/Hardware - IT Field Mobility	70	18	(74%)
[2017-2018] Hardware (IT) - New and Upgraded	125	19	(85%)
[2017-2018] Document management system	105	-	(100%)
[2017-2018] Data Warehouse	100	-	(100%)
[2017-2018] Outage Manager - control centre	212	-	(100%)
[2017-2018] Transformer Test Equipment	90	87	(4%)
[2017-2018] MVN Backup Control Room	107	-	(100%)
[2017-2018] Other	281	21	(92%)
Grand Total	1,620	698	(57%)

[2017-2018] DMR Repeater station for Rakaia Gorge. Deferred to next year due to resourcing

[2017-2018] Software - ICP Management. Lower than expected cost of construction due to the project being completed inhouse

[2017-2018] Software – ERP Development. Cost carried forward from the prior year.

[2017-2018] Software/Hardware – IT Field Mobility. Software still to purchase.

[2017-2018] Hardware (IT) – New and Upgrade. The budget was a PC amount - actual costs lower than planned.

[2017-2018] Document management system, data warehouse and outage management deferred to next year.

[2017-2018] MVN backup control room. No longer required.

7(iii): Operational Expenditure**Service interruptions and emergencies, vegetation management and routine and corrective maintenance and inspection.**

Operational expenditure is managed as a whole rather than on an individual basis. Overall operational expenditure is in line with the 2017 AMP.

No items were reclassified in accordance with subclause 2.7.1(2).

Information relating to revenues and quantities for the disclosure year

16. In the box below provide-

- 16.1 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
- 16.2 explanatory comment on reasons for any material differences between target revenue and total billed line charge revenue.

Box 13: Explanatory comment relating to revenue for the disclosure year

EA Networks have little control over the weather and the number of new connections both of which affect consumers and revenue. When the revenue forecast was prepared all known factors were incorporated into the model, however a number of risk elements still existed which were outside of the control of EA Networks. These risk elements such as weather conditions and the number of new connections are the main reason for the difference between actual revenue and budgeted revenue.

Network Reliability for the Disclosure Year (Schedule 10)

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

Box 14: Commentary on network reliability for the disclosure year

Network reliability is compliant with quality requirements under the default price-quality path, however there are inherent limitations in the ability of EA Networks to collect and record the network reliability information required to be disclosed in Schedule 10(i) to 10(iv). Consequently there is no independent evidence available to support the accuracy of recorded faults and control over the accuracy of installation control point ('ICP') data included in the SAIDI and SAIFI calculations is limited throughout the year.

Insurance cover

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

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

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

Box 15: Explanation of insurance cover

Question 18.1 level of insurance

Where it is economically sensible to insure assets EA Networks has insurance in place. In practise this means that most items outside of substation fencing will not be insured.

Question 18.2 levels of reserves

Rather than holding insurance reserves EA Networks has identified the highest risk associated with the network is adverse weather conditions. In order to minimise this risk EA is undergrounding its networks when it is economically sensible to do so.

Amendments to previously disclosed information

19. 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:
- 19.1 a description of each error; and
 - 19.2 for each error, reference to the web address where the disclosure made in accordance with clause 2.12.1 is publicly disclosed.

Box 16: Disclosure of amendment to previously disclosed information

No material errors have been identified.

Company Name	EA Networks
For Year Ended	31 March 2018

Schedule 14a Mandatory Explanatory Notes on Forecast Information

1. This Schedule requires EDBs to provide explanatory notes to reports prepared in accordance with clause 2.6.6.
2. This Schedule is mandatory—EDBs must provide the explanatory comment specified below, in accordance with clause 2.7.2. This information is not part of the audited disclosure information, and so is not subject to the assurance requirements specified in section 2.8.

Commentary on difference between nominal and constant price capital expenditure forecasts (Schedule 11a)

3. In the box below, comment on the difference between nominal and constant price capital expenditure for the current disclosure year and 10 year planning period, as disclosed in Schedule 11a.

Box 1: Commentary on difference between nominal and constant price capital expenditure forecasts
The difference is 0.0%. Costs have been prepared using 2018-19 values for labour, plant and materials. Years after 2018-19 have been escalated by the 2019-22 CPI Forecast by the New Zealand Government Treasury published on 14th December 2017.
(<http://www.treasury.govt.nz/budget/forecasts/hyefu2017>)

Commentary on difference between nominal and constant price operational expenditure forecasts (Schedule 11b)

4. In the box below, comment on the difference between nominal and constant price operational expenditure for the current disclosure year and 10 year planning period, as disclosed in Schedule 11b.

Box 2: Commentary on difference between nominal and constant price operational expenditure forecasts

EA Networks considers the answers given for 3. and 4. represent the most prudent source of information available to EA Networks for the purpose of estimating future costs.

A vast range of alternative algorithms can be proposed and defended, but there is no authoritative judgement upon which is the most accurate and reliable.

EA Networks do not have sufficient internal expertise to promote any particular theory or speculate on how future costs will trend.

It is the opinion of EA Networks that the Treasury's CPI forecast is a reasonable indicator of future cost as it incorporates a range of factors that could influence the future cost of expenditure on the electricity network.

Even with additional cost escalation data, EA Networks current future cost modelling is not sufficiently granular to take full advantage of the additional detail.

The Treasury forecast extends to 2022. Beyond 2021, EA Networks have used the 2022 CPI value (2.2%) until 2028.

Company Name	EA Networks
For Year Ended	31 March 2018

Schedule 15 Voluntary Explanatory Notes

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: Voluntary explanatory comment on disclosed information

Clauses 2.3.1

SCHEDULE 9A: ASSET REGISTER

As part of the undergrounding EA networks is changing pole mounted transformers to ground mounted transfer.

Clauses 2.4.21 Pricing information

Up until June 2017 EA Networks had paid a posted discount to qualifying irrigators who have taken steps to subdue harmonics on the networks.

Clauses 2.4.22 All consumers connected to EA Networks are charged from the same tariff card.

Clauses 2.5.1 no additional disclosure.

Clauses 2.5.2 no additional disclosure.