

Vector Lines

[Excel workbook](#)

Explanatory documentation: [Link](#)

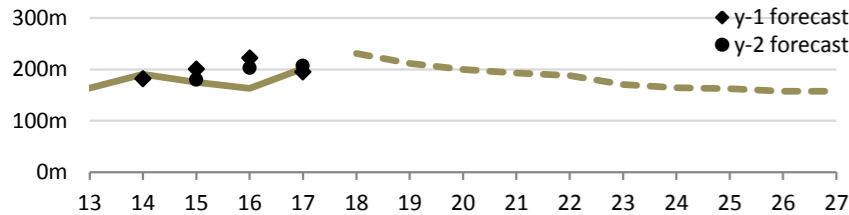
Summary database: [Link](#)

2017

Summary statistics

	2017 value	5 year trend	3 year CAGR	Rank
Regulatory asset base	\$2,879m		+2.4%	1
Regulatory profit	\$187.3m		-0.2%	1
Return on investment	7.01%			20
Line charge revenue	\$616.0m		+0.5%	1
Other income	\$0.0m		-100.0%	27
Customer connections	551,728		+0.7%	1
Energy delivered	8,302 GWh		+0.2%	1
Peak demand	1,698 MW		-0.9%	1
Network capacity	4,753 MVA		+1.5%	1
Capital expenditure	\$201.9m		+2.0%	1
Operating expenditure	\$107.9m		-0.4%	1
Capital contributions	\$58.9m		+22.6%	1
Related party transactions	\$117.9m		+108.2%	1
Line length	18,455km		+0.9%	2
Outages - SAIDI	248 minutes		+18.0%	20
Outages - SAIFI	2.10 faults		+13.1%	17

Capital expenditure



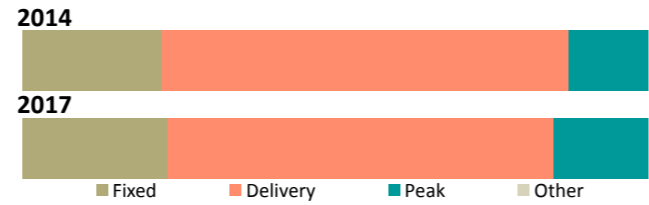
3 year ratios

Total capex / asset base	Total capex / connections	Total capex / depreciation
6.5% Rank: 11	\$329 Rank: 9	1.91 Rank: 12

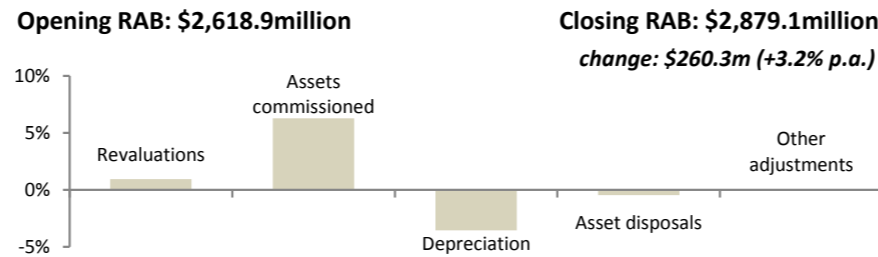
Capex by expenditure category	Average (2015-2017)	5 year trend	% of capex
Asset replacement & renewal	\$74.2m		41.3%
Consumer connection	\$47.0m		26.1%
System growth	\$27.8m		15.4%
Asset relocations	\$17.4m		9.7%
Non-network assets	\$10.6m		5.9%
Reliability, safety & environment	\$2.9m		1.6%
Total capital expenditure	\$179.9m		100.0%
Related party transactions	\$31.0m		17.2%

Line charge revenues

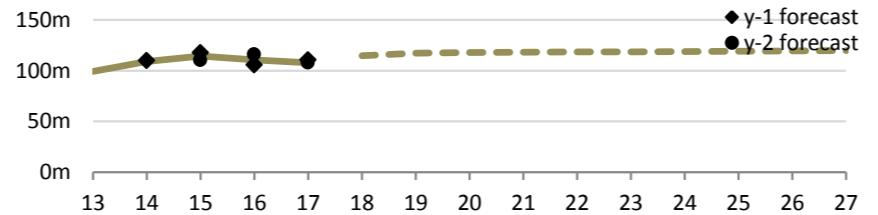
	Proportion of revenue	Charges per unit	Rank
Average daily charge	23.2%	71.1¢/ICP	17
Delivery (kWh)	61.6%	4.6¢/kWh	14
Peak based	15.2%	\$55/kW	14



Annualised RAB changes (2015-2017)



Operating expenditure



3 year ratios

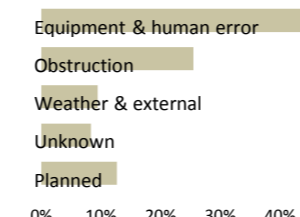
Network opex / metre of line	Non-network opex / connections	Total opex / kW
\$2.11 Rank: 24	\$133 Rank: 9	\$64 Rank: 4

Opex by expenditure category	Average (2015-2017)	5 year trend	% of opex
System operations & network support	\$40.7m		36.7%
Business support	\$31.7m		28.6%
Asset replacement & renewal	\$12.5m		11.2%
Routine & corrective maintenance	\$12.1m		10.9%
Service interruptions & emergencies	\$9.6m		8.7%
Vegetation management	\$4.3m		3.9%
Total operating expenditure	\$111.0m		100.0%
Related party transactions	\$14.3m		12.9%

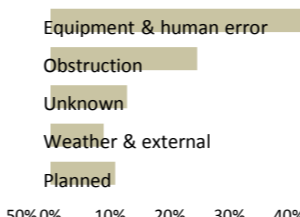
Reliability

	Unplanned	Planned	Trend
Interruptions	1,735	1,301	↑
SAIDI	176.7	71.4	↑
SAIFI	1.74	0.35	↑
CAIDI	101.5	201.4	↑

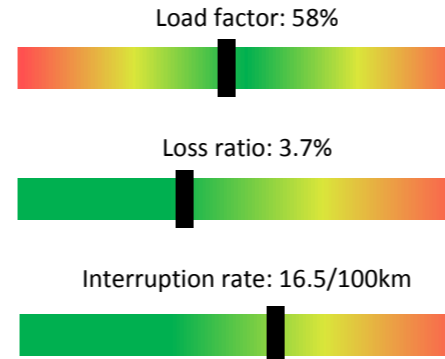
SAIDI causes



SAIFI causes



Network ratios



Company details

PQ Regulated?	Yes	Price breach: 2014
		Quality breach: 2015, 2016, 2017
CEO:	Simon Mackenzie	
Ownership:	Entrust 75.4% (formerly Auckland Energy Consumer Trust) Public 24.6%	
Head Office:	101 Carlton Gore Road; Auckland	
Phone number:	09 978 7788	
Website:	www.vector.co.nz	

Lines and cables

Estimated state of the assets	Distribution & LV O/H lines	Distribution & LV U/G cables	Subtransmission lines and cables	Poles
Quantity	7,952km	9,499km	1,004km	119,583
RAB Value	\$308.1m	\$757.6m	\$459.3m	*
Average grade	3.27	3.66	3.43	3.40
Grade 1 / 2	0.0% / 0.0%	0.0% / 0.4%	0.0% / 0.3%	0.0% / 0.1%
Unknown grade	0.0%	0.0%	0.0%	0.0%
Average age	36 years	26 years	32 years	30 years
Over generic age	220km (2.8%)	43km (0.5%)	38km (3.8%)	5,826 (4.9%)
Unknown age	1.2%	0.2%	0.0%	14.6%
5yr replacement req (est)	0.0%	0.2%	0.2%	0.1%
5yr planned replacement	0.2%	0.5%	1.9%	6.3%
Forecast repex (ave)	\$31.0m +23%	\$3.4m -38%	\$2.7m -57%	*
Repex series				*

* RAB and expenditure on poles is included within Distribution and LV lines

Switchgear and transformers

Estimated state of the assets	Distribution transformers	Distribution switchgear	Zone-substation transformers	Zone-substation switchgear
Quantity	21,643	19,748	216	1,997
RAB Value	\$263.2m	\$171.1m	<----- \$265.9m ----->	
Average grade	3.52	3.42	3.45	3.37
Grade 1 / 2	3.2% / 1.7%	1.6% / 1.2%	0.0% / 1.4%	0.0% / 12.1%
Unknown grade	0.0%	0.0%	0.0%	0.0%
Average age	23 years	22 years	31 years	26 years
Over generic age	2,348 (10.8%)	4,799 (24.3%)	85 (39.4%)	751 (37.6%)
Unknown age	0.0%	1.6%	0.0%	0.0%
5yr replacement req (est)	4.1%	2.2%	0.7%	6.0%
5yr planned replacement	7.2%	7.3%	9.3%	24.4%
Forecast repex (ave)	\$10.9m +28%	\$9.3m +21%	\$26.5m +75%	
Repex series				