CHORUS

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STOCK EXCHANGE ANNOUNCEMENT

15 October 2018

Chorus investor roadshow

The attached presentation has been prepared by Chorus for an international roadshow.

ENDS

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CHORUS

INVESTOR ROADSHOW
15 October 2018

Contents

Introducing Chorus

New Zealand’s largest fixed line communications infrastructure business

An overview of Chorus

> **New Zealand's largest fixed line communications infrastructure business**
- established in Dec 2011 following demerger from Telecom NZ
- listed on NZX and ASX: CNU; ADR ticker:CHRYY
- ~NZ$2 billion market capitalisation (at 1 October 2018)
- S&P "BBB" stable; Moody's "Baa2" stable

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Dow Jones Sustainability Indices
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> **A nationwide copper and growing fibre (FTTH) network**
- ~1.5m connections, including ~1.2m broadband
- 2/3 of way through 11-year fibre to the premises rollout
- ~930 employees supported by ~4,000 contractors/subcontractors
- fibre uptake well ahead of expectations
- streaming video services driving significant data consumption

The Chorus network: nationwide wholesale access

Common network assets

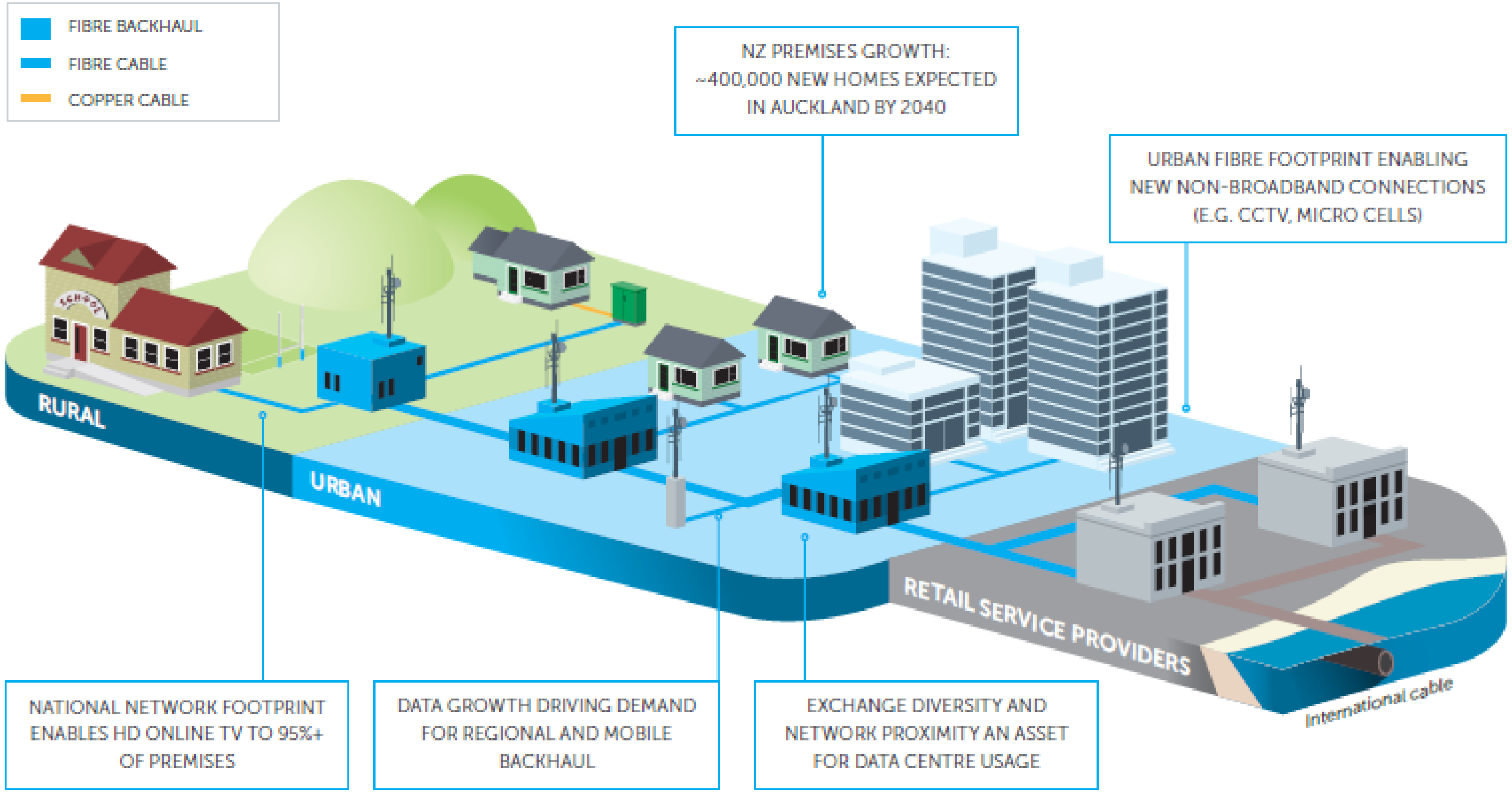
- ~600 local exchanges
- ~11,000 cabinets
- ~280,000 poles
- ~30,000km duct network

Our copper network

- ~130,000km copper
- FTTN broadband to ~90% of lines
- VDSL broadband to ~80% of lines

Our fibre network

- ~47,000km fibre
- FTTP to ~1.36m customers by 2023
- point-to-point fibre in CBD areas
- connects multiple cell sites



New Zealand is taking fibre further

> **Ultra-fast broadband (UFB): a Government objective**

- original objective (UFB1): fibre to premises covering **75%** of population by 2020
- subsequent agreements (UFB2 and UFB2+) have extended coverage goal to **87% of population by the end of 2022**

> **Chorus is a cornerstone partner in the fibre rollout**

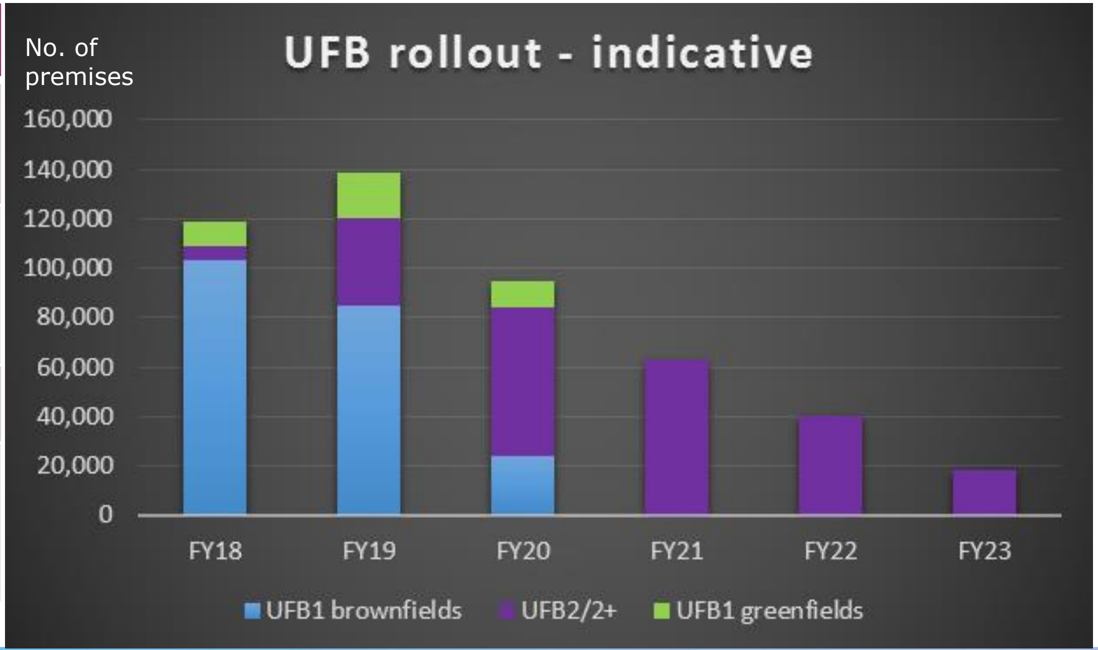
- requirement that Chorus split from Telecom NZ to participate: demerger in December 2011
- Crown partnerships with four fibre companies: Chorus, Enable, Northpower, Ultrafast Fibre (WEL Networks)
- **Chorus was awarded ~75% of UFB rollout**

FY19 is peak communal build year

- ~120,000 brownfields premises to be passed across UFB1 and UFB2
- expect to claim another ~18k UFB1 greenfields premises already passed in prior years

Programme guidance		Notes
UFB1 communal	$1.75 - $1.8 billion	Tracking towards the top end of guidance and excludes growth (e.g. additional splitter investment)
UFB1 cost to connect (CPPC)	$1,050 - $1,250	For a standard residential connection, including layer 2 and service desk costs, and in 2011 dollars. Tracking towards the top half of the range.
UFB2* communal	$505 - $565 million	Combined guidance range for UFB2 and 2+
UFB2* cost to connect	$1,650 - $1,850	In 2017 dollars and including layer 2, backbone costs for MDUs and rights of way with 10 or fewer premises and service desk costs

* combined UFB2 and 2+ rollout plans

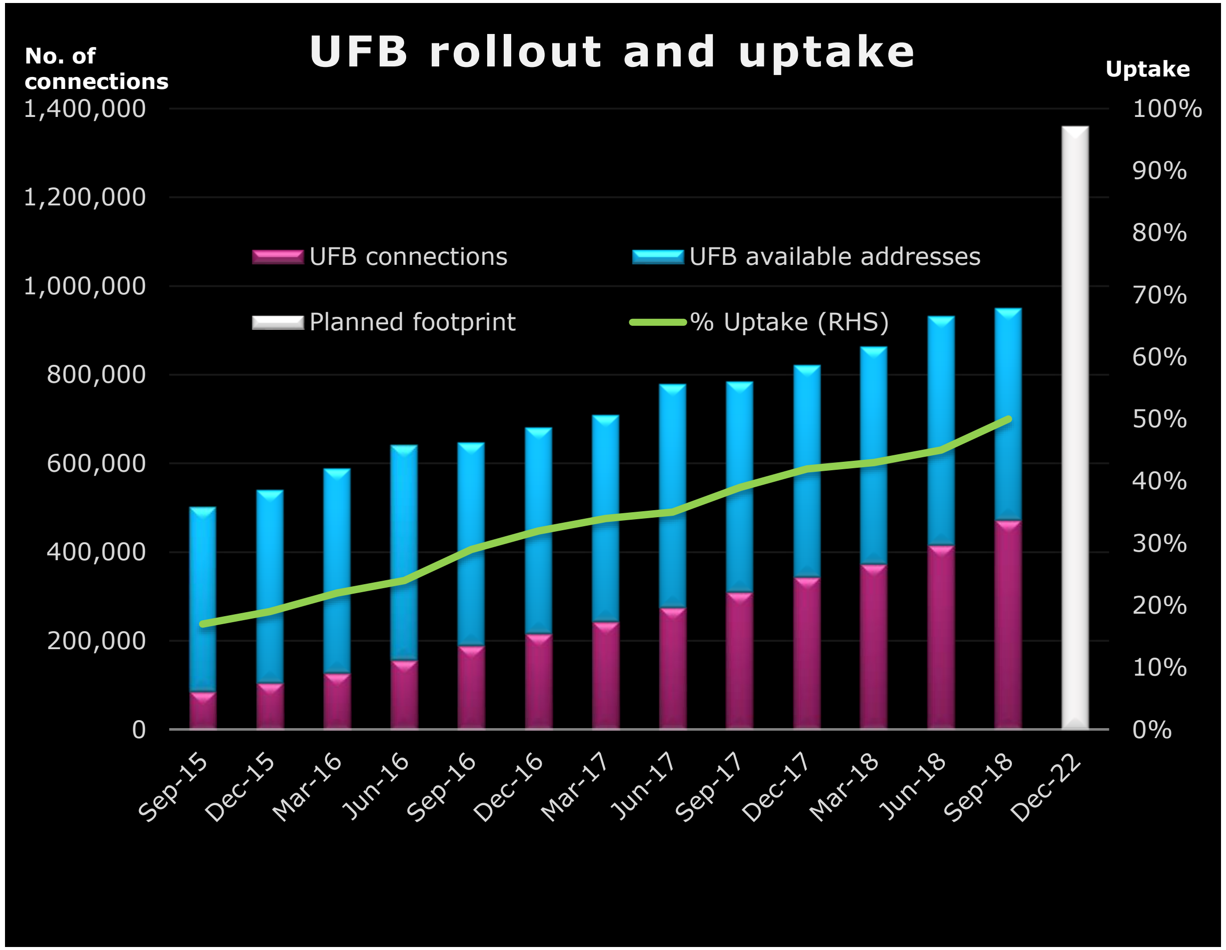


Surging fibre demand

Premises to pass by Dec 2022	~1,054,000*
Customers able to connect	~1.36 million
Estimated communal capex to pass premises (excludes capex to connect premises)	$2.26 to 2.37 billion
Crown funding (57:43 equity/debt)	up to $1.33 billion

*Includes estimated 43k greenfields premises for UFB1

> **50% UFB uptake at 30 Sept (30 June: 45%)**
- **472,000** connections
- **950,000** customers able to connect
- **714,000** premises passed



Connecting customers

20% lift in fibre installations YOY

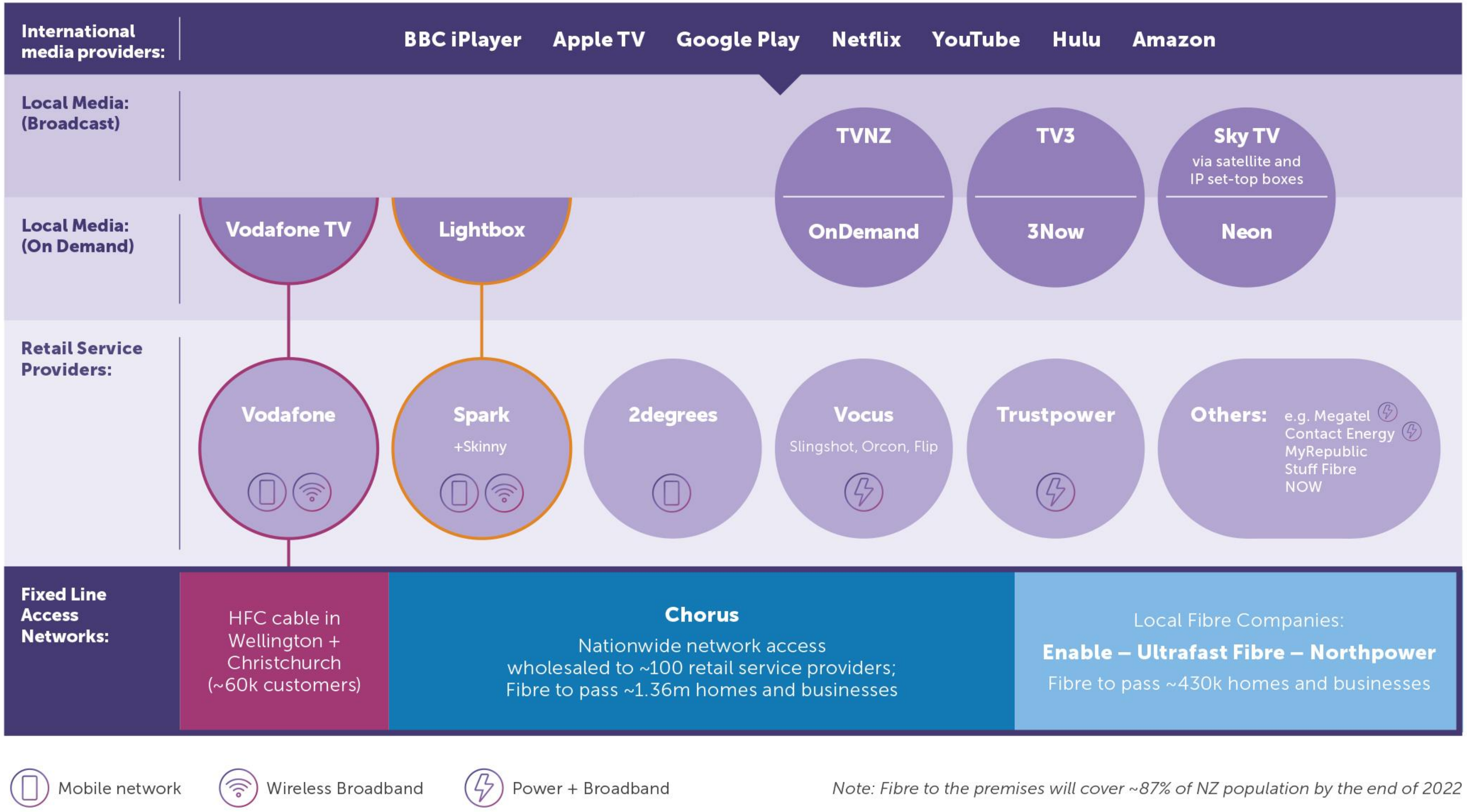
- **185** installation crews added in FY18
- focus on lifting customer satisfaction
- achieving "fibre in a day" for **25%** of regular installations > targeting 50% by Xmas
- working with retailers to reduce reschedules

Migration campaigns

- mix of Chorus-led door knocking and integrated retailer campaigns
- ongoing trials to support fibre in a day and future copper migration

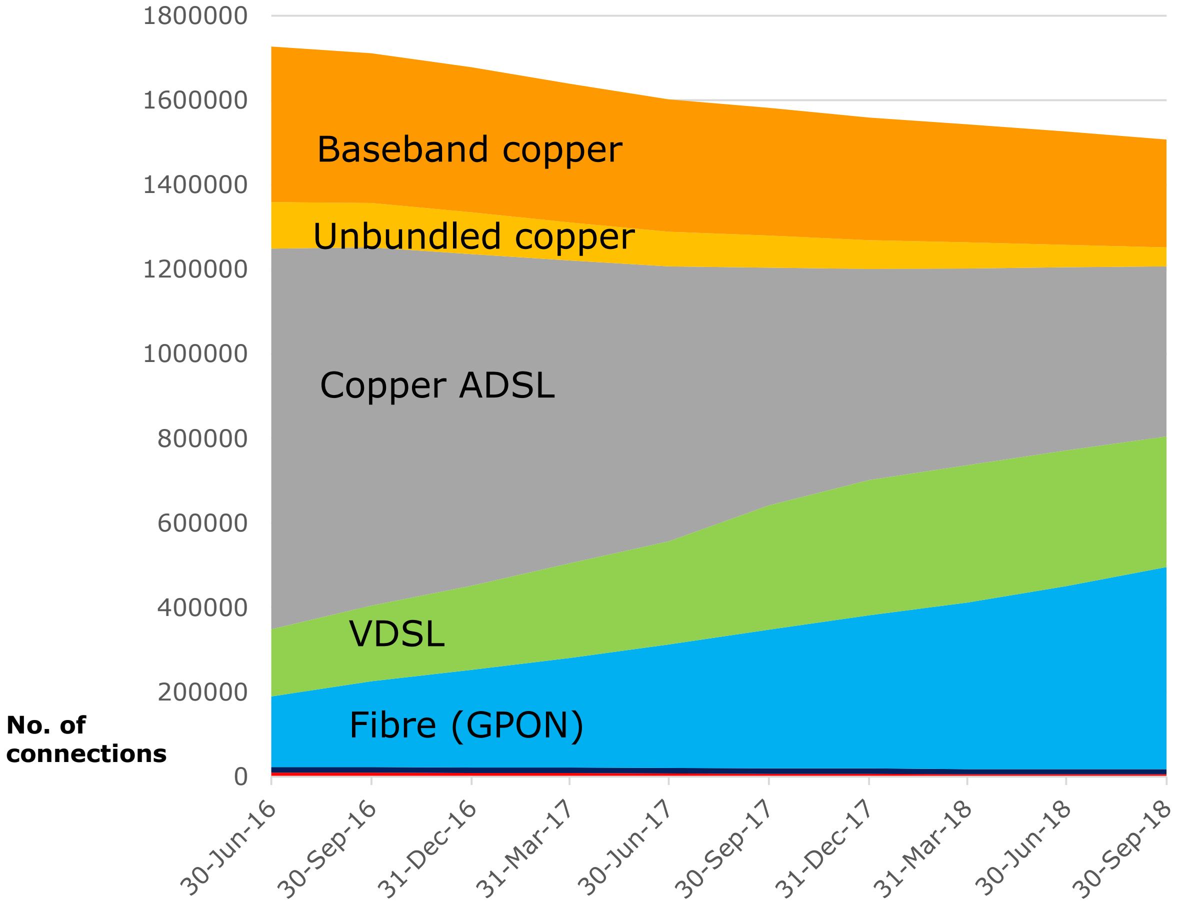
Broadband: the 4th utility

Overview of the New Zealand fixed line market



Note: Fibre to the premises will cover ~87% of NZ population by the end of 2022

Chorus connection trends



Q1 FY19: 1,507,000 connections

Voice only connections: 300,000

Broadband connections: 1,190,000

- 66% of connections on fibre or VDSL

Premium business connections: 17,000

Chorus connections drivers

Growing connections	Reducing connections
Broadband penetration at an estimated 85% and continues to grow. Fibre established as the premium product and our expanding fibre footprint is expected to help win customers from wireless and HFC networks. Vectoring VDSL upgrade completed in areas outside our fibre footprint.	Growing network competition as local fibre companies (LFCs) expand their fibre footprint: ~190k connections FY18 (~140k FY17).
Intense retail competition is helping broaden the market by providing customers with attractive plans and pricing (e.g. free smart TV; free Netflix; bundled with electricity). Unlimited data plans becoming the norm as streaming video on demand grows.	Fixed wireless (mobile) retailers are encouraging their existing low data customers onto their own networks. Government funded Rural Broadband Initiative will extend wireless coverage to a further ~70k rural addresses.
Population and premises growth is providing underlying market growth: Auckland city is projected to account for over half of NZ's expected population growth to 2040 with 400,000 new homes.	Continued migration of voice only lines to mobile/wireless and consolidation of multiple voice lines as technology options become more mainstream and population ages.

CONNECTIONS BY ZONE	Chorus UFB zone*	Rural (non-UFB) zone	Local Fibre Company UFB zone	TOTAL
At 30 June 2018	**1,108,000**	**206,000**	**194,000**	**1,508,000****
At 30 Sept 2018	**1,106,000**	**203,000**	**181,000**	**1,490,000****
Copper connections: no broadband	189,000	50,000	61,000	300,000
Broadband: copper + fibre	917,000	153,000	120,000	1,190,000

* Includes planned UFB1, 2 and 2+ coverage
**Excludes fibre premium and data services (copper) connections

Growing our broadband base

Strong premises growth

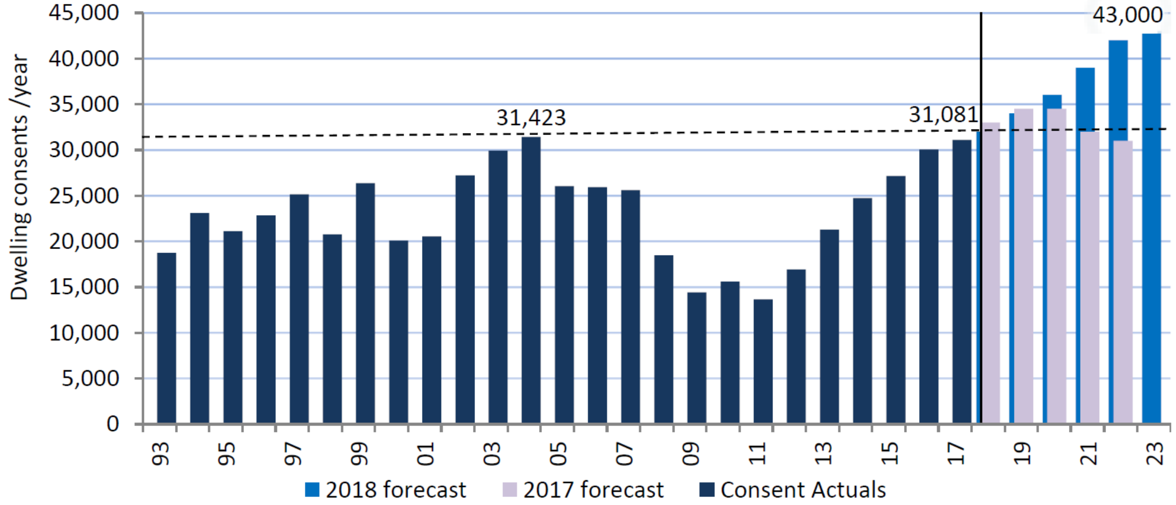
- government forecasts suggest 39% growth in consents
- we've redesigned processes for property developers
- ~3,000 premises pre-connected with fibre in FY18

Competitive network effects ebbing

- LFC UFB1 rollouts complete
- wireless customers returning as fibre rollout expands, data demands grow
- Wellington rollout entering significant off-net HFC suburbs
- leveraging our vectoring VDSL rollout in LFC and rural areas

MBIE National Construction Pipeline Report forecasts 39% growth in consents

Figure 5-3 Dwelling units consented nationally, 2017 and 2018 comparison

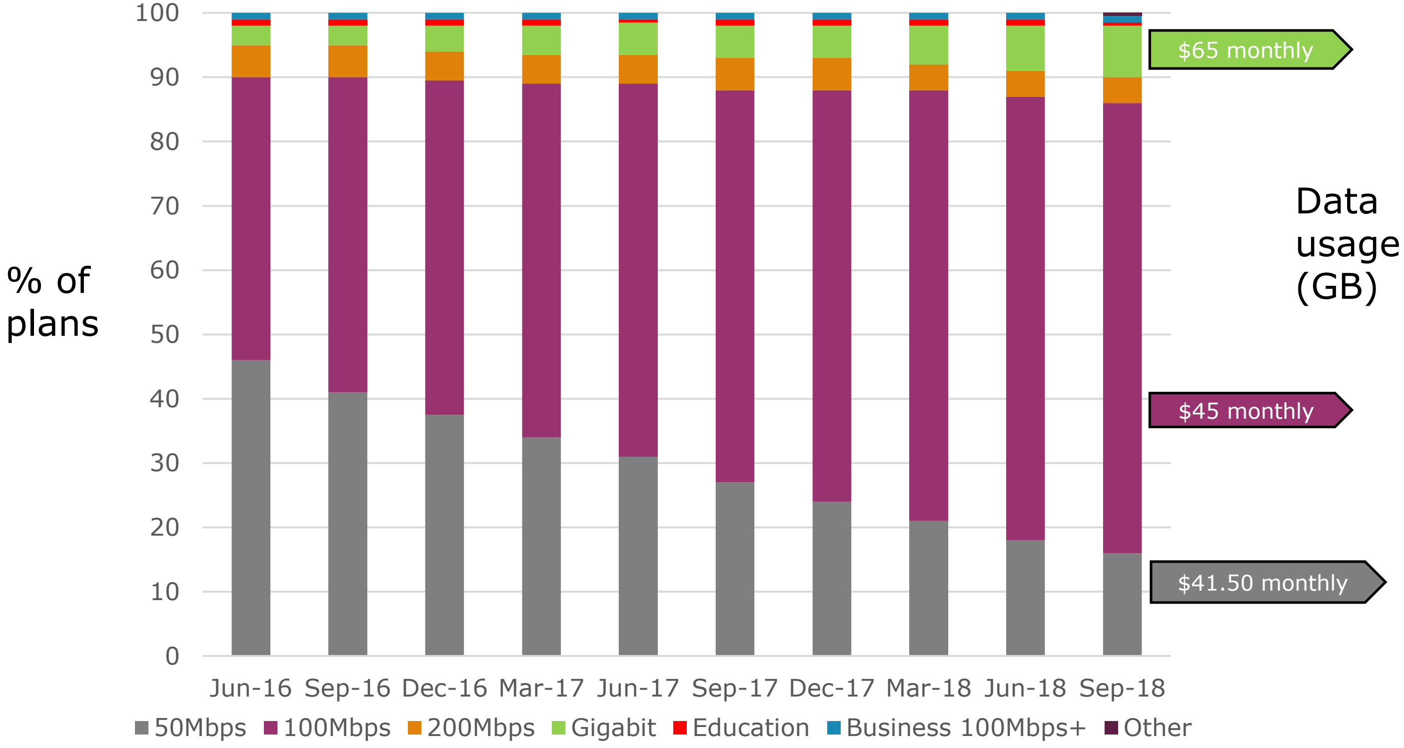


Source: BRANZ/Statistics New Zealand

Fibre uptake and data demand

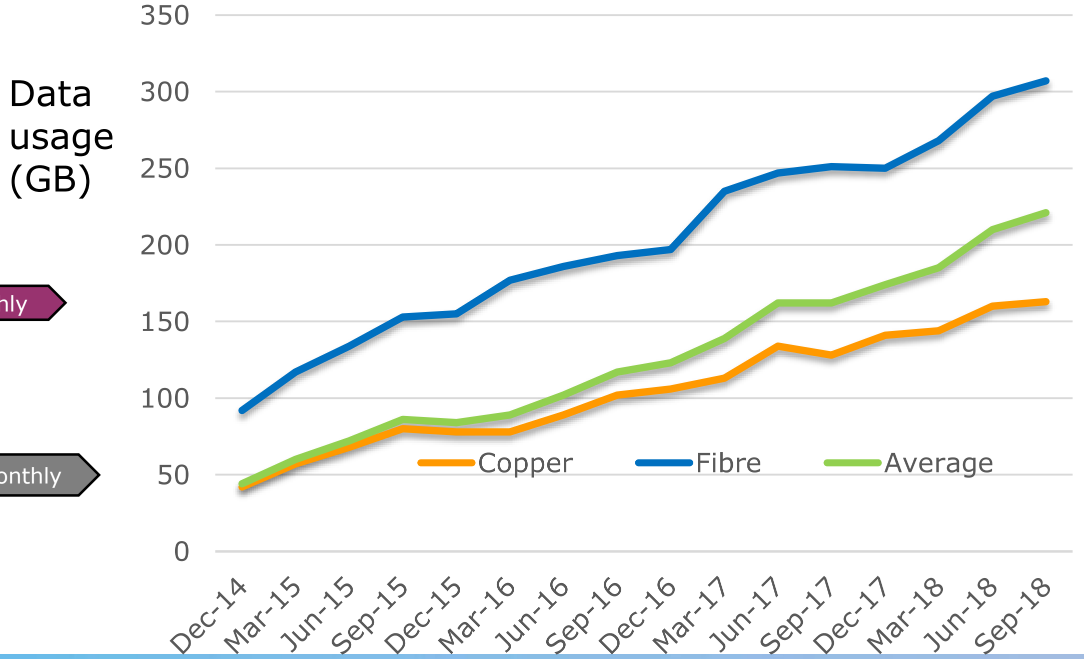
> **46,000** mass market fibre connections added in Q1
  - 36,000 connections now on gigabit plans (Q4: 30,000)
  - 70% of mass market fibre connections on 100Mbps

Total mass market fibre uptake by plan type



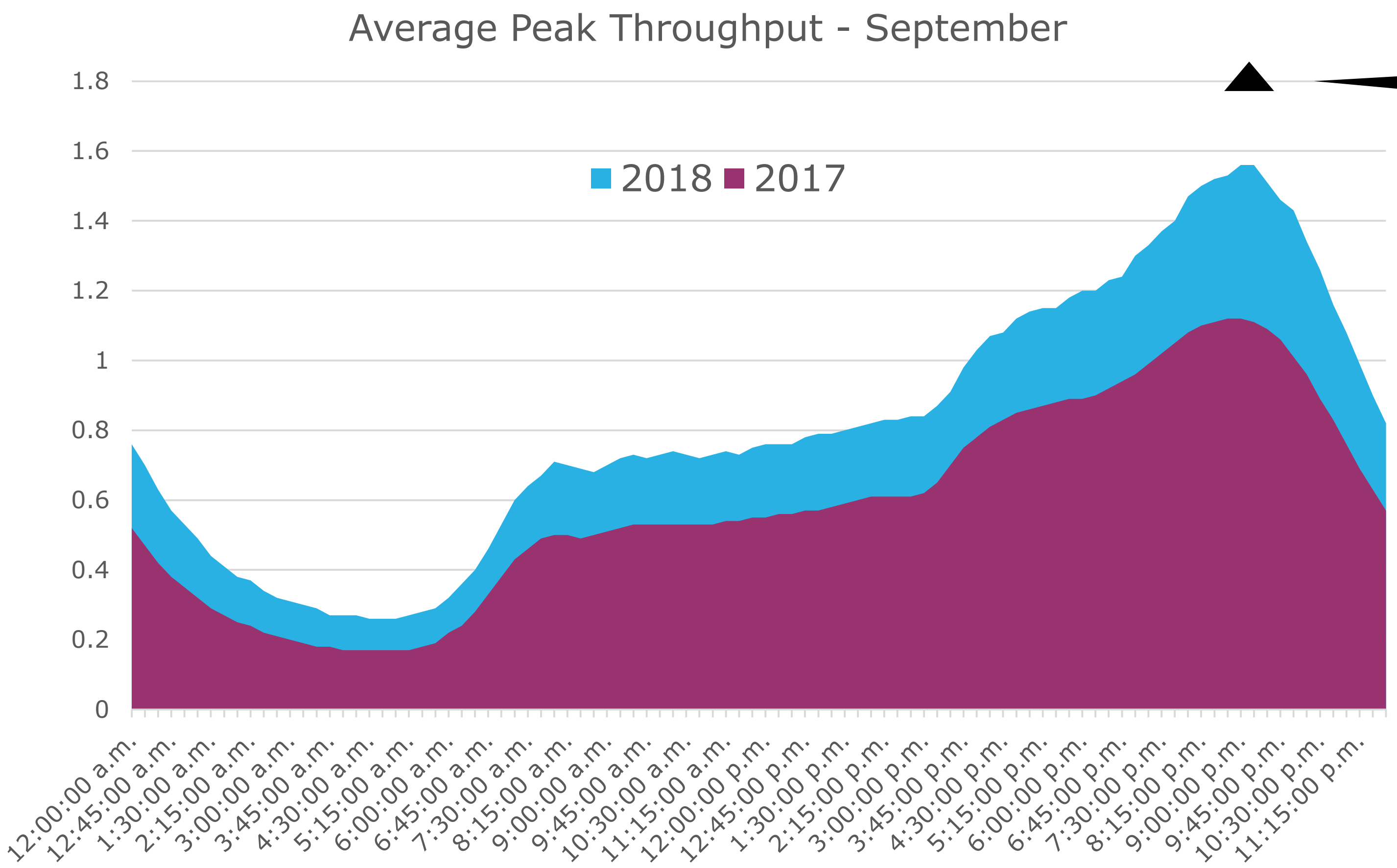
> Monthly average data usage per household connection on our network grew to **221GB** (Sept 2018) from **210GB** (June 2018)
  - **307GB** on fibre (June: 297GB)
  - **163GB** on copper (June:160GB)

Monthly average data usage per connection on our network



40% growth in traffic peak: Sept 2017-2018

Network throughput (Tbps)

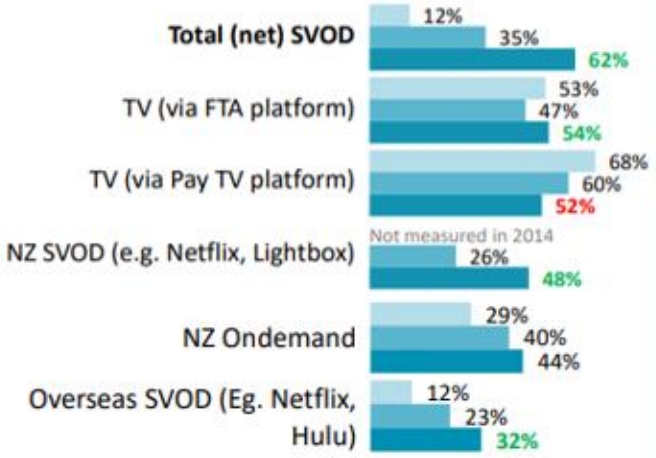


Time of day

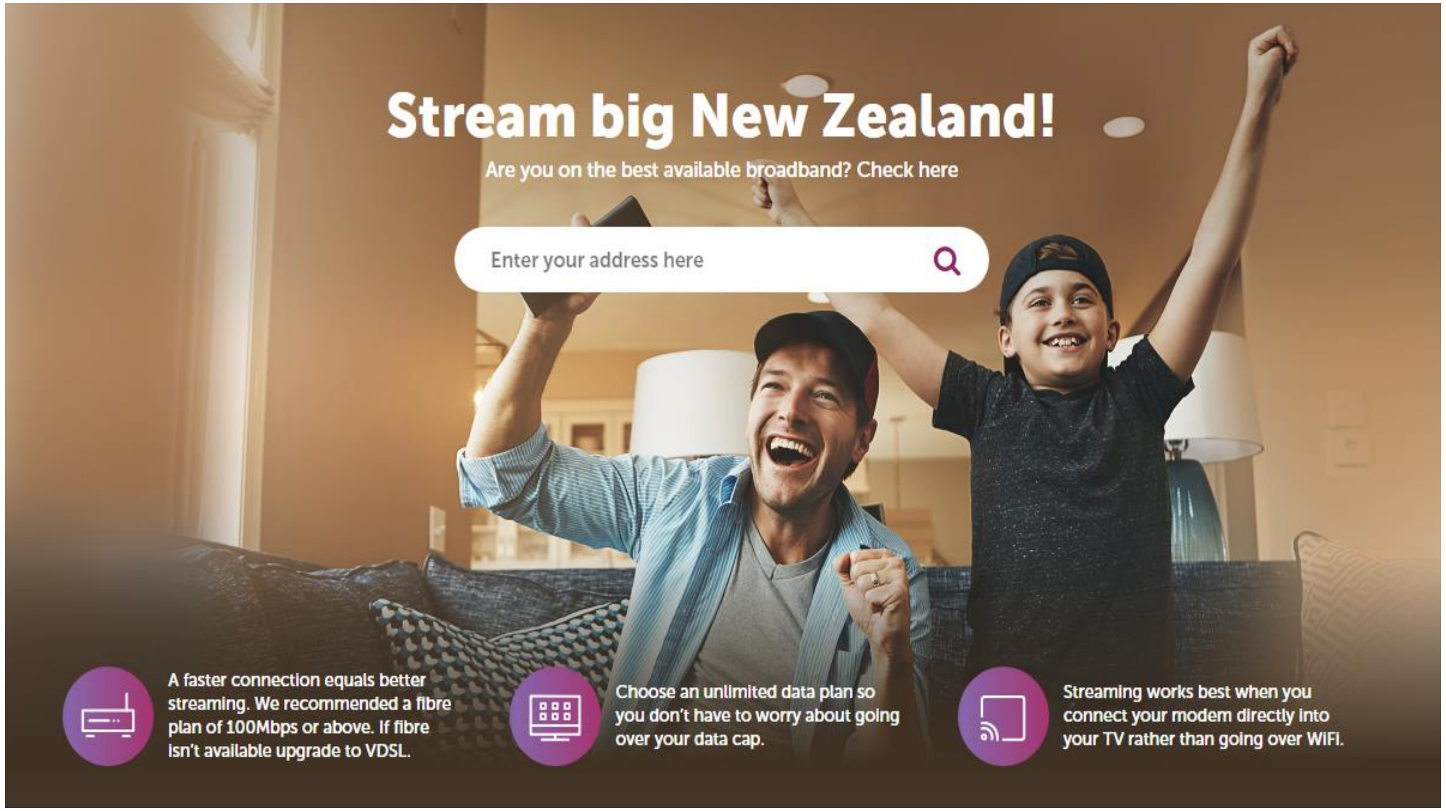
Fortnite effect: record peak traffic 1,792Gbps on 12 July 2018

Live sports to drive streaming uptake

62% of NZers watching SVOD, vs 12% in 2014



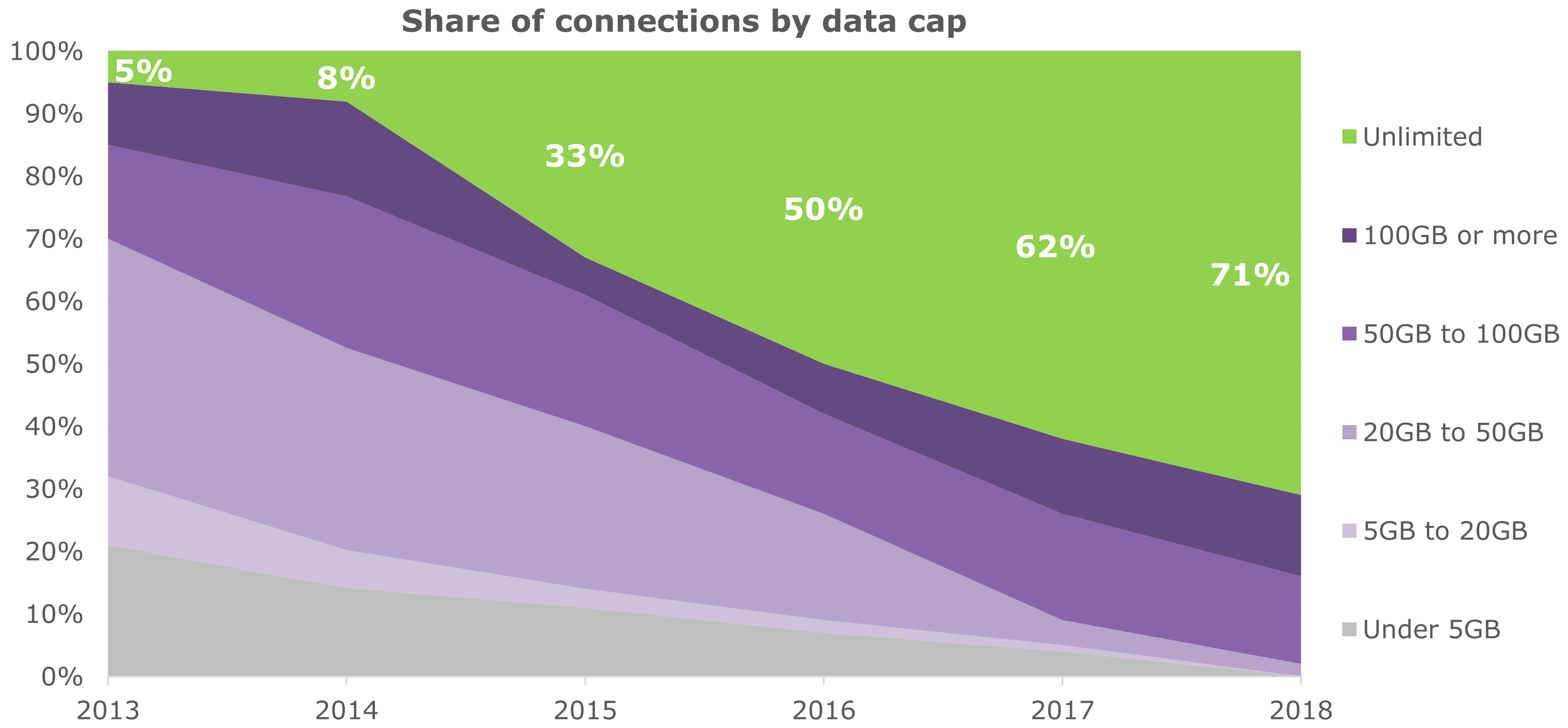
Source: *NZ On Air*, Weekly reach of media - % of all NZers



www.chorus.co.nz/streambig

Streaming is driving shift to unlimited data plans

71% of NZ broadband connections have no data cap



> ~1.3m broadband connections are believed to be on unlimited data plans, up from ~130k in 2014

Source: Statistics NZ ISP Survey June 2018

Shaping our future

INVESTOR ROADSHOW

15 October 2018

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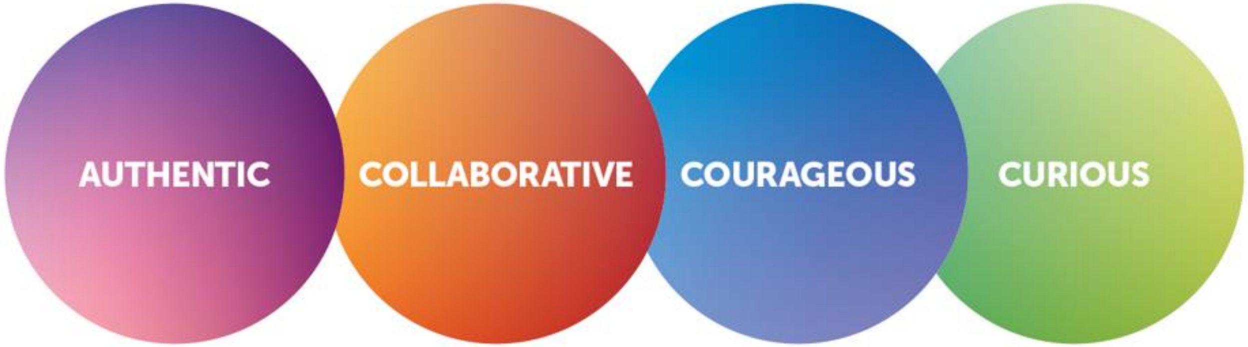
Shaping our future

Our aspiration is to return to modest EBITDA growth in FY20, subject to no material changes in expected regulatory environment or competitive outlook

- utility style framework expected soon
- copper>fibre migration
- refining our product portfolio
- review of service company model
- evolving company culture
- the rise of wholesale only networks



WE'RE GOING TO

KEEP NEW ZEALAND NEW

WE'LL GET THERE BY

Creating an environment for our customers and our people that optimises today's business and allows us to innovate for growth

BECAUSE WE WANT TO

MAKE NEW ZEALAND BETTER

WE'RE FOCUSSED ON

CUSTOMER

Transform customer experience

DIGITAL

Nothing happens if it's not digital

PEOPLE

We're committed to enabling our people

OPTIMISATION

We improve by getting better at what we do

INNOVATION

New revenue opportunities

Transition to a regulated utility framework

> draft legislation currently before Parliament would implement a utility-style building block methodology for fibre networks from 2020
  - fibre RAB will include unrecovered losses incurred before 2020
  - pre 2011 assets to be valued at depreciated historical cost; post 2011 assets at depreciated actual cost
  - price cap for 100/20Mbps anchor product to start at 2019 level with annual CPI adjustment for the first regulatory period – currently 2023
  - unbundling of the fibre network to be made available on a commercial basis from 2020

87% of population where fibre will be available by end of 2022

Fibre – proposed utility framework

- Regulated asset base (RAB) with revenue cap, to be set by Commerce Commission within two years
- Two anchor products (voice only + entry level broadband – 100/20Mbps fibre) at 2019 prices + CPI and a price cap for direct fibre access
- Three years after the new regime commences, the Commission can review the revenue cap model, as well as the anchor products, subject to specified conditions and statutory criteria

Copper – proposed legacy framework

Where fibre is available:

- Copper network to be deregulated and Telecommunications Service Obligation (TSO) removed
- Chorus can withdraw copper service, subject to minimum consumer protection requirements

Remaining 13% of population

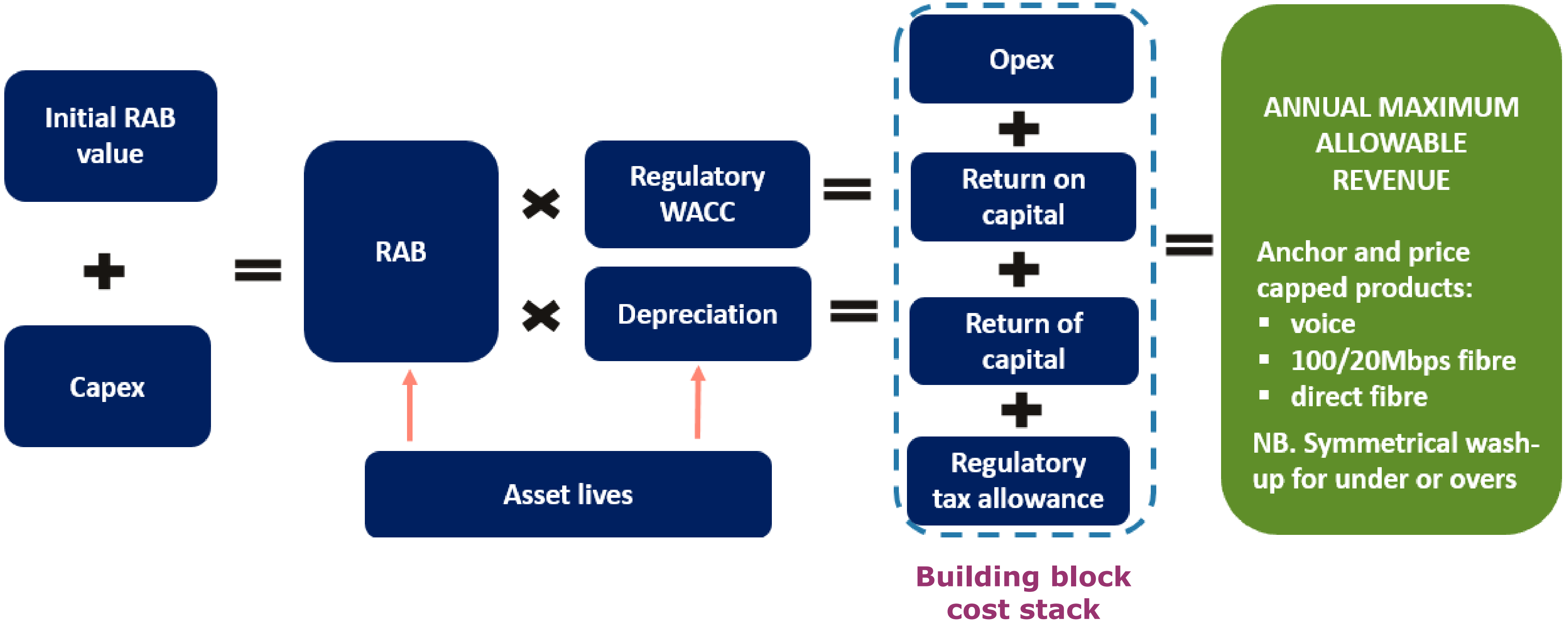
Where fibre is not available:

- Copper remains regulated and TSO applies
- Copper pricing capped at 2019 levels with CPI adjustments
- Commission required to review pricing framework no later than 2025

Note: existing copper regulatory framework uses benchmarking and Total Service Long Run Incremental Cost, with pricing last set in late 2015 for a 5-year period (see Appendix D – Chorus mass market products)

Regulated Asset Base implementation

> Commerce Commission will determine the starting value of the RAB, regulatory WACC, cost allocations, expenditure allowances and maximum allowable revenue
  - if this process extends beyond 1 January 2020, key fibre and copper prices will be frozen, adjusted for inflation, for up to 24 months



Proposed RAB framework similar to NZ electricity sector

Growing number of wholesale communication network comparators

Country	Company	Business type	Market cap	EV/EBITDA	Net Debt /EBITDA	Credit rating	WACC
New Zealand	**Vector**	Electricity distribution network	NZ$3.4b	10.7x	4.42x	BBB – S&P Baa1 – Moody's	In April 2018 the NZ Commerce Commission determined a FY19 WACC of 5.19% (post tax, 67th percentile) for electricity distribution businesses
New Zealand	**Chorus**	Wholesale communications network (copper + fibre)	NZ$2.1b	6.1x	3.43x	BBB – S&P Baa2 – Moody's [1]	Fibre WACC yet to be determined under new regulatory framework. In Dec 2015, the NZ Commerce Commission determined WACC of 5.56% (post tax, 50th percentile) for Chorus' legacy network
Singapore	**Netlink NBN Trust**	Wholesale communications network (fibre only)	NZ$2.8b	14x [2]	2.1x [2]	Not rated	In 2017, IMDA - the Singapore regulator - determined WACC of 7% (pre-tax) under a RAB framework for the Jan 2018 to Dec 2022 period
Czech Republic	**CETIN**	Wholesale communications network (fixed + mobile)	Not listed			BBB – Fitch Baa2 – Moody's	In 2015, CTU - the Czech regulator - determined WACC (post tax) of 9.07% for NGA network and 6.39% for legacy network [3]

Source: Financial metrics based on Bloomberg data as at 1 October

1. Moody's Investor Services has noted Chorus' transition to a regulated utility model could support a higher leverage profile within the Baa2 credit rating.
2. Based on trailing 12 month financials.
3. In 2016, a European Commission report recommended higher WACCs be applied to Next Generation Access networks to reflect different characteristics from legacy networks, including systematic demand risks, intensive capital leverage and long-term pay-offs.

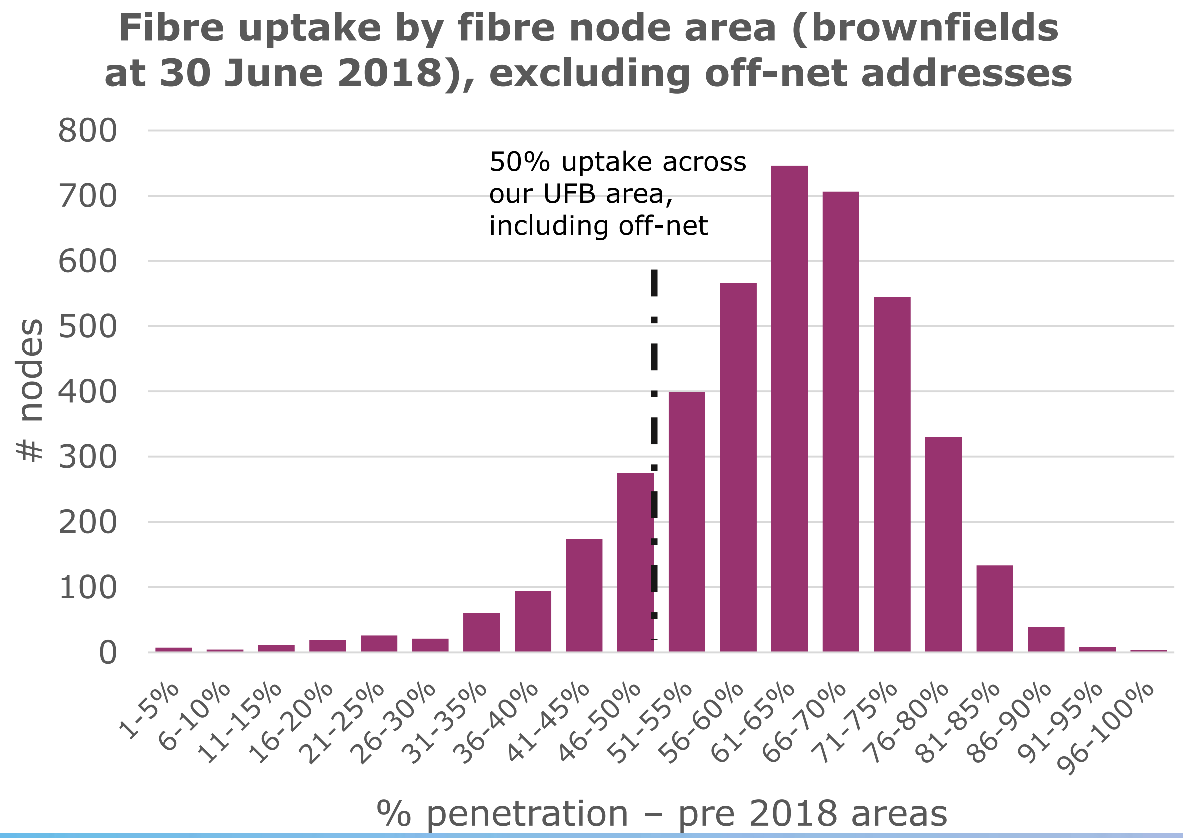
Innovation focus

Pipeline of opportunities identified

- infrastructure re-use trialled for **IoT** delivery and moving to commercialisation
- school trials proving **wi-fi** potential to bridge digital divide
- **network edge computing**: clear global trend favouring exchange co-location; Wellington and Christchurch sites under development for Q3 FY19
- **4K TV** trial: clear medium term potential for broadcasting role; pathway to other opportunities as streaming accelerates data demands

Planning for copper to fibre migration

- average UFB uptake of 50% understates actual penetration given ongoing network expansion and off-net connections
- fibre penetration is >70% across 1,000 nodes when exclude off-net connections
- draft legislation contemplates copper withdrawal in areas where fibre is available
- withdrawal code to be developed in consultation with industry and Commission



Financial performance and capital management

CHORUS

Income statement

	FY18 $m	FY17 (adjusted) $m
Operating revenue	990	1,048
Operating expenses	(337)	(338)
Earnings before interest, tax, depreciation and amortisation (EBITDA)	**653**	**710**
Depreciation and amortisation	(387)	(379)
Earnings before interest and income tax	266	331
Net interest expense	(144)	(147)
Net earnings before income tax	122	184
Income tax expense	(37)	(39)
Net earnings for the year	**85**	**145**

- FY17 adjusted to show the illustrative impact if NZ IFRS 9, 15 and 16 had applied

FY19 EBITDA guidance of $625m to $645m reflects:

- expectations of market growth in broadband, plus continued slowing in overall line loss
- incremental spend (above FY18 levels) of $10 - $15 million on innovation activity, regulatory processes, branding and other transformation-related one-off costs. Excluding this, we expect total costs to be broadly consistent with FY18.

Revenue

	FY18 $m	FY17 (adjusted) $m
Fibre broadband (GPON)	198	123
Fibre premium (P2P)	78	79
Copper based voice	133	163
Copper based broadband	421	501
Data services copper	27	32
Field Services	70	84
Value added network services	33	34
Infrastructure	23	23
Other	7	9
Total	**990**	**1,048**

- FY17 adjusted to show the illustrative impact if NZ IFRS 15 and 16 had applied

> Revenue growing as fibre uptake increases

> Movement from legacy services to lower price UFB services

Copper revenues declining as customers migrate to Chorus fibre or competing fibre/wireless networks

> Decline in copper installation, subdivision and 3rd party maintenance revenues

Expenses

	FY18 $m	FY17 (adjusted) $m
Labour	73	69
Provisioning	6	11
Network maintenance	87	87
Other network costs	34	27
IT	54	55
Rents, rates and property maintenance	24	22
Regulatory levies	13	13
Electricity	15	14
Consultants	5	10
Insurance	3	3
Other	23	27
Total	**337**	**338**

- FY17 adjusted to show the illustrative impact if NZ IFRS 15 and 16 had applied

> 12% reduction in staff from Aug 2017 peak but most impact in capex. Labour includes $5m of one-off costs

> Provisioning reflects a smaller scope of activity and cessation of FY17 install support costs

> Proactive maintenance and weather events offset volume reduction and changed copper/fibre mix

> Increases in network costs reflects increased focus on proactive maintenance and cost of maintaining network spares

> Reduced following FY17 strategic review

> Other costs declined with initiatives around travel and other corporate expenses

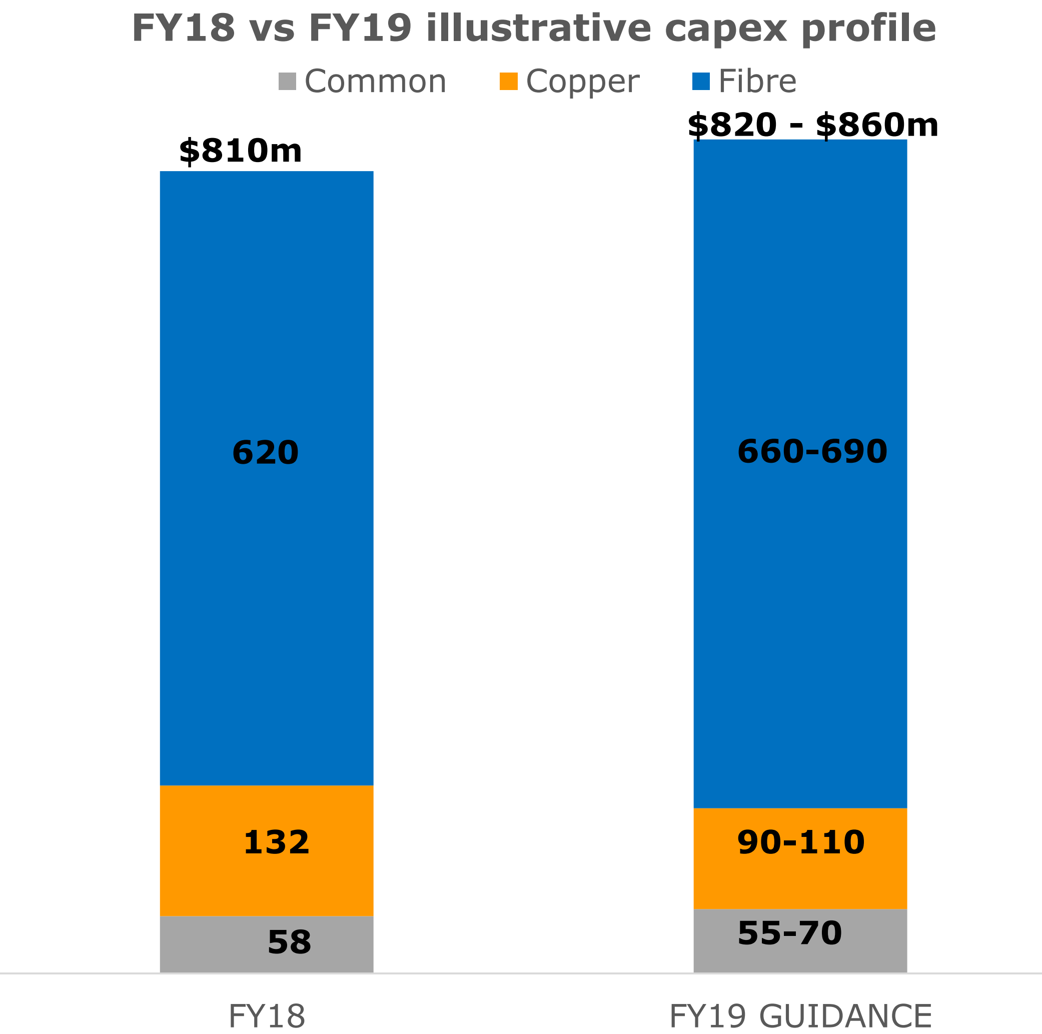
FY19 gross capex guidance

> **$820m - $860m** gross capex reflects:

- **Fibre $660m-$690m**
  - $280-310m fibre connections & layer 2
  - $90-110m spend forecast for UFB2/2+ communal
  - continued greenfields and transport (UFB2) spend
  - ~$10m pole programme continues
  - customer retention mix weighted more to fibre

- **Copper $90m-$110m**
  - vectoring rollout complete
  - ~$10m pole programme continues

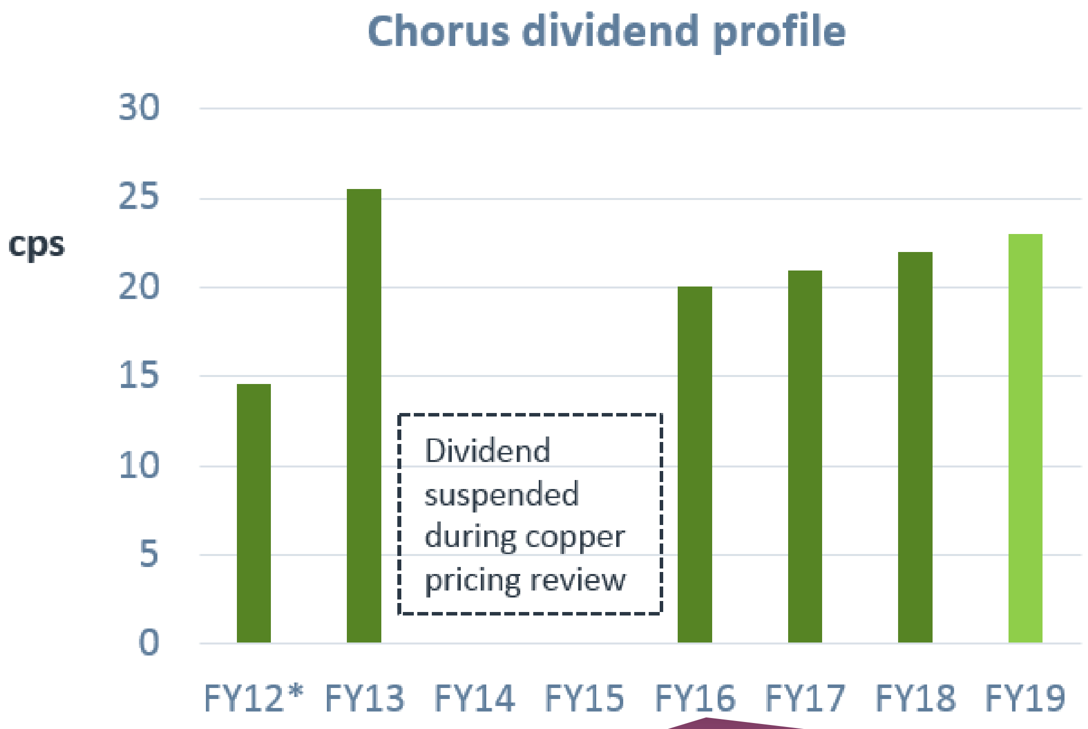
- **Common**: **$55m-$70m**
  - includes potential innovation spend



FY19 guidance summary

	FY19 guidance	FY18 result
UFB1 Cost Per Premises Passed (CPPP)	**$1,500 - $1,600**	$1,568
UFB2/2+ communal capex	**$90m - $110m** (based on estimated starting premises of 45,000 to 55,000 and premises handed over of 25,000 to 35,000)	$61m
UFB1 Cost Per Premises Connected (CPPC)	**$1,000 - $1,150** (excluding layer 2 and including standard installations and some non-standard single dwellings and service desk costs)	$1,037
Fibre connections & layer 2 capex	**$280 – $310m** (based on mass market 155,000 – 175,000 fibre connections, and 14,000 backbone builds and including service desk costs)	$294m
FY19 Gross capex	**$820 – $860m**	$810m
FY19 EBITDA	**$625 – 645m**	$653m

Capital management



FY12*: prorated for the post demerger period of seven months

During the UFB build programme to 2020, the Board expects to be able to provide shareholders with modest dividend growth from a base of 20cps per annum, subject to no material adverse changes in circumstances or outlook.

> The Chorus Board considers that a 'BBB' credit rating or equivalent credit rating is appropriate for a company such as Chorus. It intends to maintain capital management and financial policies consistent with these credit ratings.

> **FY19 dividend guidance of 23 cps**, subject to no material adverse changes in circumstances or outlook.

> A **Dividend Reinvestment Plan** has been available to NZ and Australian resident shareholders with a 3% discount to prevailing market price

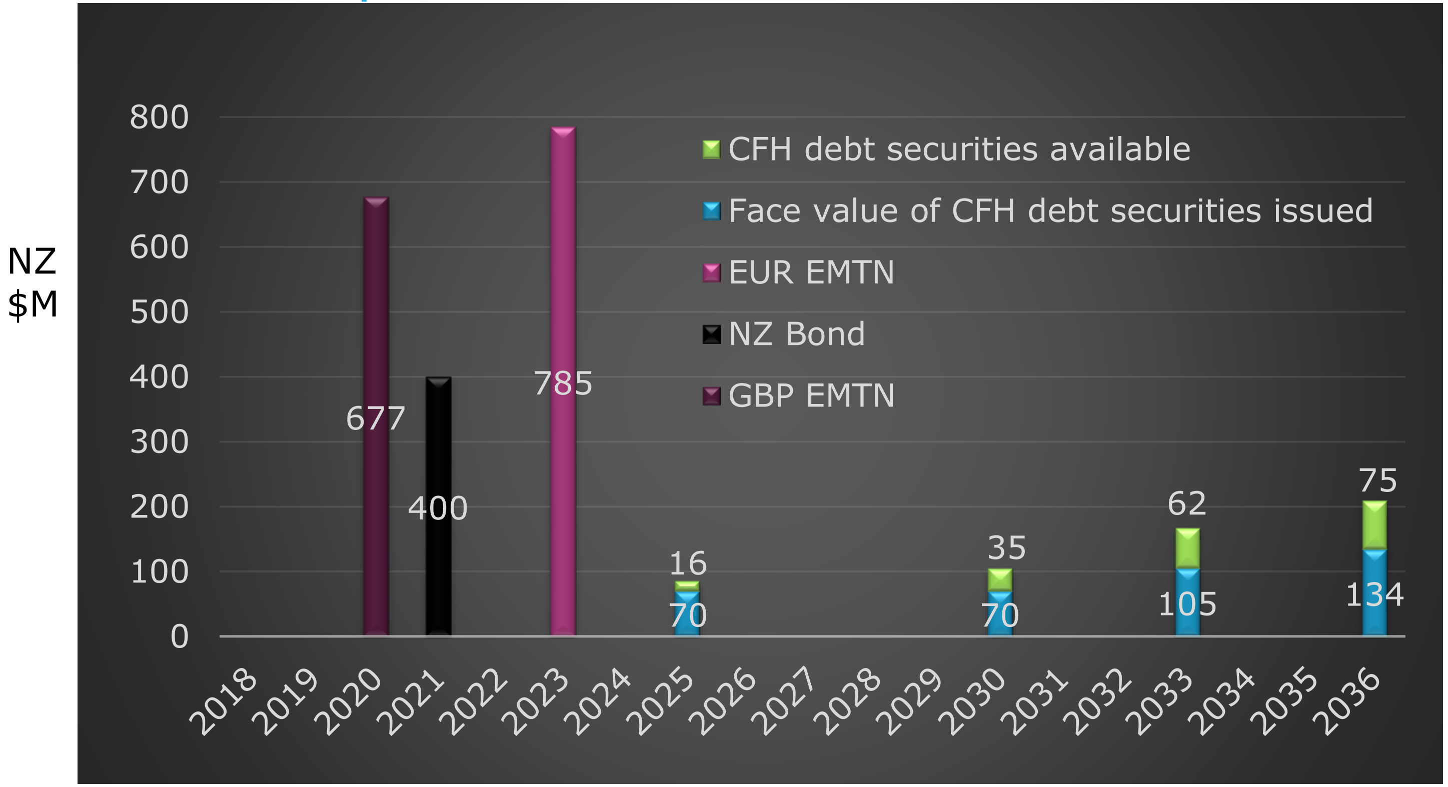
Debt

	As at 30 June 2018 $m
Borrowings	1,922
+ PV of CFH debt securities (senior)	129
+ Net leases payable	238
Sub total	2,289
- Cash	(50)
Total net debt	**2,239**
Net debt/EBITDA	3.43 times

- Financial covenants require senior debt ratio to be no greater than **4.75 times**

> At 30 June, debt of $1,922m comprised:
- Long term bank facilities $290m undrawn; $60m drawn
- NZ bond $400m
- Euro Medium Term Notes $1,462m (NZ$ equivalent at hedged rates)

Term debt profile



Appendices

Appendix A: Pro forma FY17 net earnings

For information purposes only. This appendix provides an approximate translation of FY17 to show the illustrative impact if NZ IFRS 9, 15 and 16 had applied in FY17.

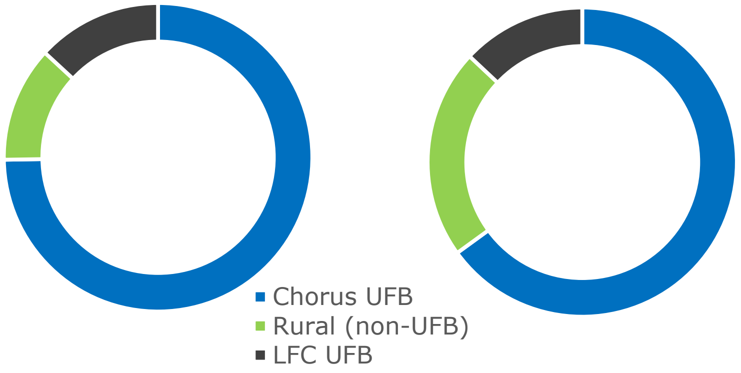
Income statement	FY17 results $m	NZ IFRS impact $m	FY17 (adjusted) $m	Notes
Operating revenue	1,040	8	1,048	Broadband modem upgrade costs incurred in FY17, in FY18 these are now capitalised and amortised in accordance with NZ IFRS 15
Operating expenses	(388)	50	(338)	$42m costs incurred in acquiring and retaining customers (provisioning $32m, Labour $5m and IT $5m). These costs are now capitalised and amortised in accordance with NZ IFRS 15 and disclosed as separate items in fibre and copper capex. $8m rent and rates are now recognised as a right of use asset with the value capitalised and depreciated over the life of the lease.
EBITDA	**652**	**58**	**710**	
Depreciation and amortisation	(339)	(40)	(379)	Increase in depreciation and amortisation in line with NZIFRS 15 and 16.
Net interest expense	(154)	7	(147)	NZ IFRS 9 and 16 impact to account for change in accounting treatment for ineffectiveness and capitalisation of leases.
Income tax expense	(46)	7	(39)	Net tax impacts associated with NZ IFRS changes.
Net earnings for the year	**113**	**32**	**145**	

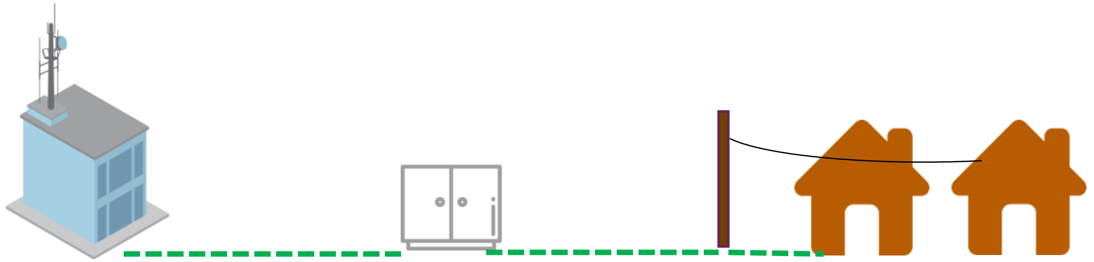
Appendix B: Understanding network maintenance

Fibre uptake initially reduces variable copper costs only

- Rural areas are disproportionately more expensive to maintain than urban areas
- Copper costs don't reduce in proportion to the number of connections – there is a significant fixed element
- Fibre share of maintenance will grow, but at a lesser rate than copper because variable fault rate is lower on fibre (although costlier to fix)
- In the long run, we think there is around an annual $10m saving from full copper to fibre migration in Chorus UFB areas

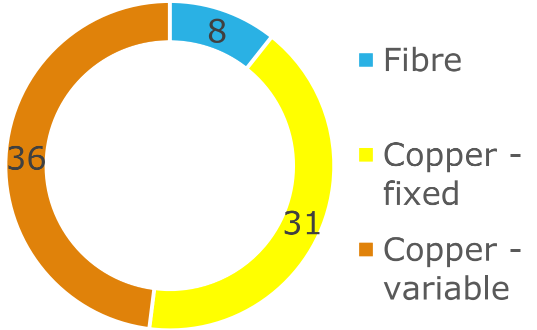
% FY18 lines | **% FY18 reactive maintenance cost**



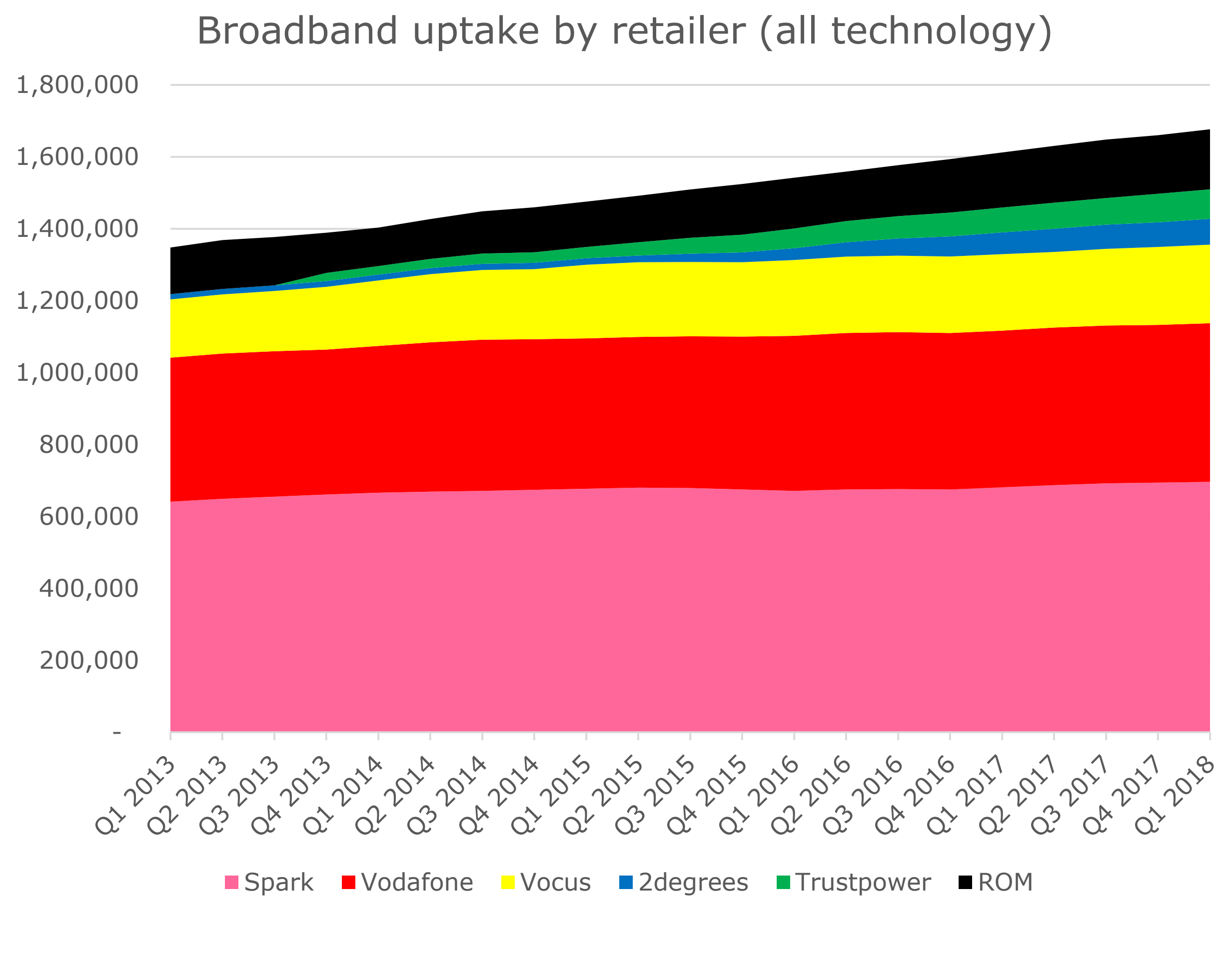


Copper maintenance: urban (indicative)	Exchange + feeder cable	Cabinet to street boundary	In boundary (excludes home wiring)
Fixed	30%	70%	0%
Variable	20%	40%	40%

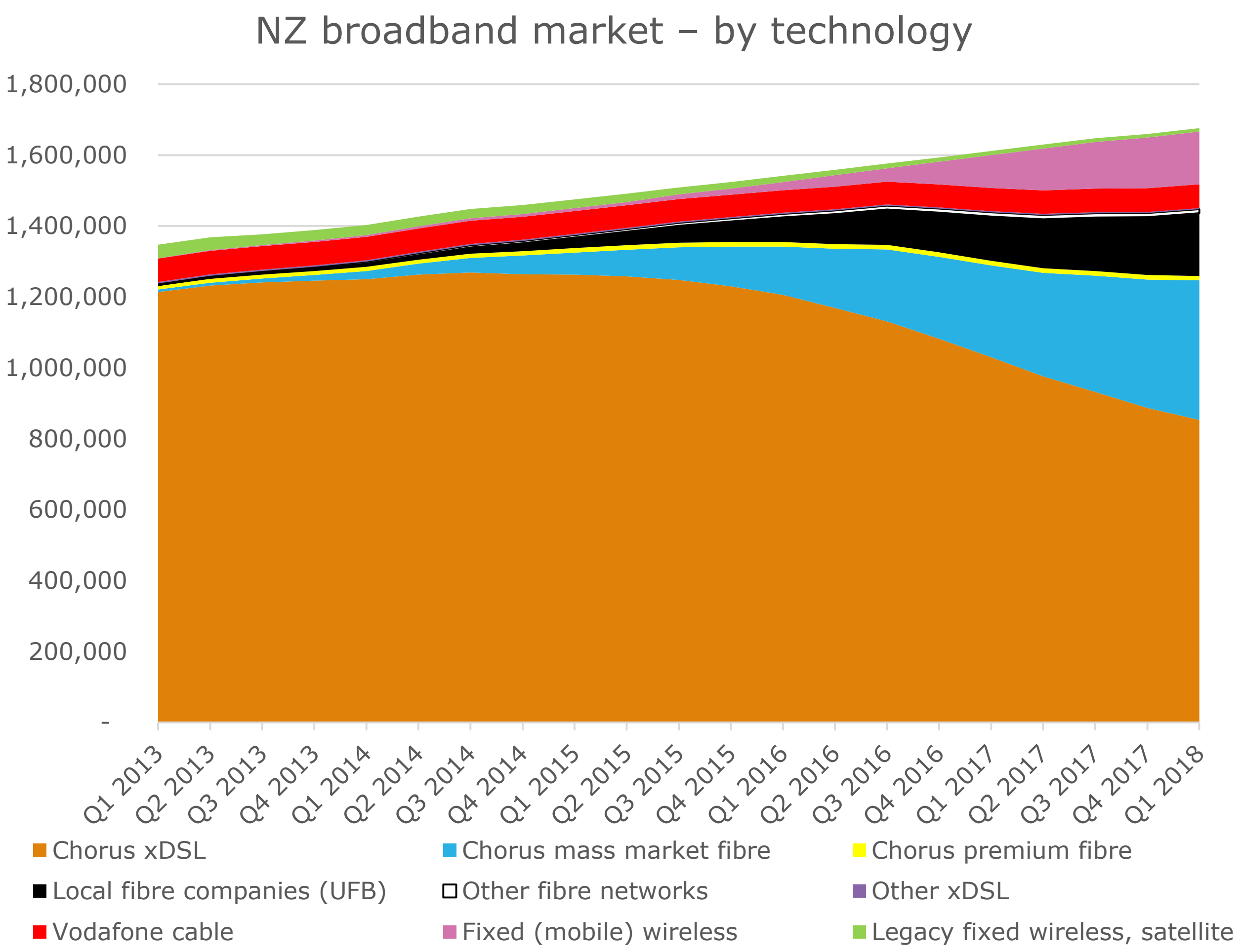
FY18 reactive maintenance spend $m



Appendix C: Broadband market by retailer + technology



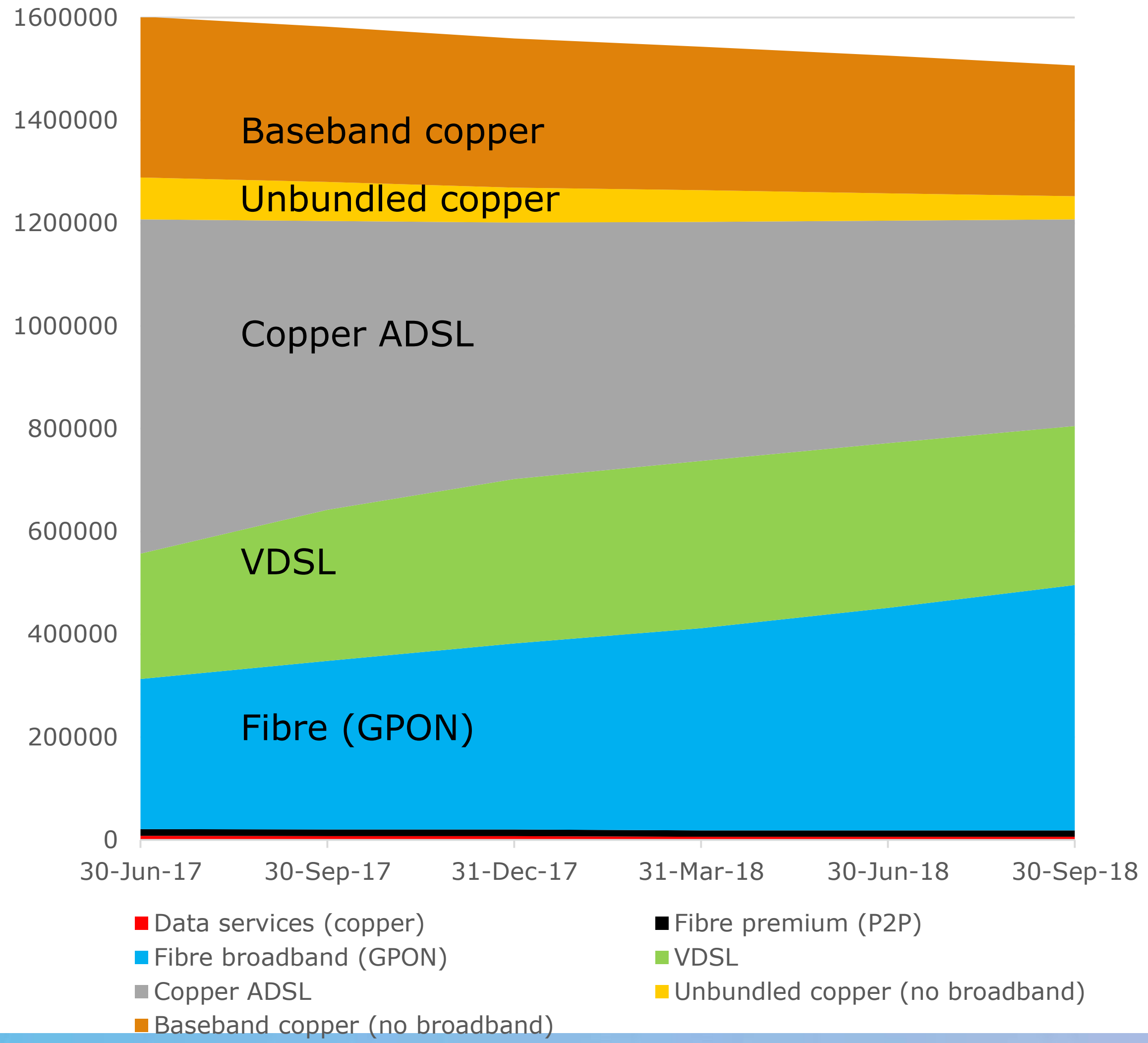
Source: IDC



Source: IDC

Chorus connections

	30 Sept 2017	31 Dec 2017	31 March 2018	30 June 2018	30 Sept 2018
Unbundled copper	76,000	68,000	62,000	53,000	45,000
Baseband copper (no broadband)	302,000	290,000	279,000	268,000	255,000
Fibre broadband (GPON)	328,000	362,000	394,000	433,000	479,000
VDSL (includes naked)	294,000	320,000	325,000	321,000	309,000
Copper ADSL (includes naked)	562,000	499,000	465,000	433,000	402,000
Data services (copper)	7,000	7,000	6,000	6,000	5,000
Fibre premium (P2P)	13,000	13,000	12,000	12,000	12,000
Total connections	1,582,000	1,559,000	1,543,000	1,526,000	1,507,000



Appendix D: Chorus mass market products

Fibre products (GPON)	Wholesale price (monthly)	Product type
Voice only	$25.00	UFB contracted products. FY19 pricing applies until end of 2019 with subsequent pricing subject to regulatory framework.
50/10Mbps	July 2017: $40.50 July 2018: $41.50 July 2019: $42.50	
100/20Mbps	July 2017: $43 July 2018: $45	Chorus commercial products. Prices subject to change on notice, but must be within UFB contracted price cap in Chorus UFB areas.
200/20Mbps	FY17-FY19: $55	
1Gbps residential	FY17-FY19: $65	
1Gbps business	FY17-FY19: $75	
100/100Mbps to 1G/1G business	FY17-FY19: $175+	UFB contracted product. FY19 pricing applies until end of 2019 with subsequent pricing subject to regulatory framework.

Regulated copper pricing	Line only (monthly)	With broadband (monthly)
Year 1 (from mid Dec 2015)	$29.75	$41.19
Year 2 (from mid Dec 2016)	$30.22	$41.44
Year 3 (from mid Dec 2017)	$30.70	$41.71
Year 4 (from mid Dec 2018)	$31.19	$42.02
Year 5 (from mid Dec 2019)	$31.68	$42.35

Note:
- Copper prices were set by the Commerce Commission in Dec 2015
- Chorus charges the same for high-speed VDSL broadband as ADSL broadband

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