Exploding Malcolm Turnbull's Myths September, 2015

Why the cost of the MTM based NBN has increased by \$15 billion

NBN Co's latest Corporate Plan, released in August 2015, shows a total funding requirement of up to \$56 billionⁱ for the Coalition's MTM based NBN. This is an increase of \$15 billion from the \$41 billionⁱⁱ predicted in the December 2013 Strategic Review. And an increase of \$26.5 billion from the \$29.5 billionⁱⁱⁱ promised in Coalition's Policy document of April 2013.

The \$15 billion increase from the Strategic Review of December 2013 to the August 2015 Corporate Plan has nothing to do with FTTP costs and the decisions made by the previous NBN Co management. It has everything to do with the persistently over-optimistic assumptions about the true costs and timescale for deploying the newly introduced MTM technologies of HFC and FTTN at scale, and the huge impact that this has had on the complexity of the rollout.

There has been no factual explanation of where the extra cost of \$15 billion has come from since the time of the Strategic Review. And there is really only one place where it can have come from - from the FTTN and HFC parts of the rollout. The parts that were costed by the team of consultants and the management team put in place following the September 2013 election.

There are five major cost elements of the NBN that are common to the original Labor FTTP based NBN and the Coalition MTM based NBN. These are:

FTTP Brownfields FTTP Greenfields Fixed Wireless Satellite Transit Network

How have the costs of these elements changed?

FTTP Brownfields

The average cost per premises for FTTP Brownfields in the new Corporate Plan, August 2015 is \$3,700^{iv}, or \$4,400 including \$700 lease costs, which is slightly higher than NBN Co's internal costings in 2013 of \$3,900. But the \$15 billion increase is measured against the Strategic Review, not previous management's internal estimates. And the cost per premises used in the Strategic Review was \$4,100^v, or \$4,800 including \$700 lease costs.

So the cost per premises NBN Co is now assuming in its Corporate Plan, August 2015 is actually <u>lower</u> than the cost that was assumed in the Strategic Review (\$4,400 compared with \$4,800).

The total number of premises to be passed by FTTP has also now been reduced to 2.4 million^{vi} in the latest Corporate Plan, August 2015 compared with 2.9 million^{vii} in the Strategic Review.

So in FTTP Brownfields, the cost per premises is lower than in the Strategic Review and the number of premises being covered is lower than in the Strategic Review. So FTTP Brownfields must, if anything, have resulted in savings against the Strategic Review. This can be seen in the table below:

Brownfields FTTP	Dec 2013 Strat Review	Aug 2015 Corp Plan
Cost per Premise	\$4,800	\$4,400
Number of Premises	2.9m	2.4m
Total Cost	\$13.9Bn	\$10.6Bn (\$3.3Bn saving)
Total costs for 2.4m prems	\$11.5Bn	\$10.6Bn (\$0.9Bn saving)

FTTP Greenfields

NBN Co's 2013 estimate of the cost of servicing FTTP Greenfields up to the end of FY2021 was \$3.3 billion^{viii}. This projection was increased marginally to \$3.4 billion^{ix} in the Strategic Review. According to its 2015 Annual Report, up to June 2015 NBN Co had spent a total of \$3.6 billion^x on FTTP in total. This is split approximately \$3.0 billion for FTTP Brownfields and \$0.6 billion for FTTP Greenfields^{xi}. NBN Co's latest Corporate Plan projects another \$0.2 billion^{xii} each year for FTTP Greenfields in FY16, FY17 and FY18, taking the cumulative spend to the end of FY2018 to just \$1.2 billion. If that run rate were maintained through to FY2021 the total spend on FTTP Greenfields would be \$1.8 billion.

It therefore appears that FTTP Greenfields is now projected to come in well below NBN Co's Corporate Plan, June 2013 cost estimates. Part of this reduction may be because the \$3.3 billion cost in June 2013 assumed 100% of infill premises would be covered by FTTP, whereas a proportion of these premises will now fall into the HFC and FTTN footprints. But as NBN Co's latest Corporate Plan, August 2015 assumes much lower per premises costs for HFC and FTTN, this would also presumably result in significant savings.

But again, the \$15 billion increase is measured against the Strategic Review, which assumed a total cost of \$3.4 billion for FTTP Greenfields, much higher than is now assumed. FTTP Greenfields therefore cannot be responsible for the \$15 billion increase. In fact, according to NBN Co's own numbers it produces \$1.6Bn in savings, as is seen in the table below:

Greenfields FTTP	NBN Co 2013 Est	Dec 2013 Strat Review	Aug 2015 Corp Plan
Total Cost	\$3.3Bn	\$3.4Bn	\$1.8Bn (\$1.6Bn saving)

Fixed Wireless

The capital cost of the Fixed Wireless Service to the end of FY2018 is now estimated by NBN Co to be \$1.9 billion^{xiii}. By this time, according to NBN's latest Corporate Plan, the "tower build [will be] largely completed" There would not therefore be expected to be significant costs beyond that date, other than additional connections and network upgrades if additional capacity is required.

NBN Co's Corporate Plan August, 2015 forecasts total costs of \$1.9 billion^{xv} to the end of FY2018 to cover 0.5 million premises^{xvi}, which is not too different to NBN Co's Corporate Plan, 2012 estimate of \$1.3 billion^{xvii} to cover 0.4 million premises^{xviii}.

However, the Strategic Review in December 2013 included a much larger Fixed Wireless cost of \$2.5 billion^{xix}, to cover just 0.4 million premises^{xx}. This was on the basis that substantially more mobile towers were needed than originally planned by NBN Co - but the exact number of additional towers required was redacted in the Strategic Review document^{xxi}.

Given that NBN Co's latest Corporate Plan, August 2015 says that the tower build will be "largely completed" by the end of FY2018, and at a cost of just \$1.9 billion, it can only be assumed that all those additional towers foreshadowed in the Strategic Review are, in fact, no longer thought to be required.

So the latest NBN Co Corporate Plan is now saying that the Fixed Wireless network will cost almost \$0.6 billion less than the Strategic Review estimated, and will cover 0.1 million more premises. Fixed Wireless is clearly not the cause of the \$15 billion increase.

Satellite

The capital costs of launching 2 satellites and servicing their customers, together with operating the interim satellite service, is now estimated by NBN Co to be \$1.7 bn^{xxii} to the end of FY2018. This is actually <u>lower</u> than NBN Co's original 2012 estimate of \$1.9 billion^{xxiii}, which included connections to the end of 2021.

The cumulative premises served by these 2 satellites in 2018 will be 412,000 according to NBN Co's latest Corporate Plan^{xxiv}. And the total "end of Rollout" number of premises to be covered by the satellite service

in 2020 is also 0.4 million^{xxv}. So the satellite program must now be expected to be 100% completed by 2018.

The Strategic Review in December 2103 argued that NBN Co had previously vastly underestimated the amount of satellite capacity required, and claimed that it would cost \$3.0 billion^{xxvi}, an additional \$1.2 billion over and above NBN Co's Corporate Plan 2013 estimate, to serve 0.32 million premises^{xxvii}. This was on the basis that additional satellites would need to be launched.

Unlike the Strategic Review, it appears that the latest Corporate Plan, August 2015 now agrees with previous Corporate Plans that only 2 satellites are required, not 3. So Satellites aren't to blame for the \$15 billion increase – and in fact should have reduced the funding requirement relative to the Strategic Review if a 3rd satellite is now no longer in the plan.

However you look at it, the combined costs to complete the launch of 2 Satellites and to 'largely complete' the Fixed Wireless Network are now projected to cost a combined \$3.6 billion (\$1.9 billion + \$1.7 billion) to cover 1 million premises, compared with NBN Co's Corporate Plan, June 2013 estimate of \$3.5 billion cover 1 million premises. But the Strategic Review assumed a much higher estimate cost of \$5.5 billion (\$2.5 billion + \$3.0 billion), to cover only 0.8 million premises. So Fixed Wireless and Satellite networks have actually delivered savings against the Strategic Review, not been the cause of the \$15 billion increase.

Satellite + Fixed Wireless	Lab CP June 2013	Dec 2013 Strat Review	Aug 2015 Corp Plan
Total Cost	\$3.5Bn	\$5.5Bn	\$3.6Bn (\$1.9Bn saving)
Number of Premises	1m	800k	1m

As shown above FTTP Brownfields, FTTP Greenfields, Fixed Wireless and Satellite cannot be the cause of the \$15 billion increase. That only leaves a handful of other elements that could be responsible:

- Transit and Common capex
- FTTN & HFC capex
- Revenue
- · Operating Expenses

Dealing with these in turn:

Transit & Common Capex

The main elements of Common Capex are the Transit Network and IT systems.

The Transit network, as originally developed by NBN Co for a full FTTP rollout, has consistently tracked on time and on budget. The latest Corporate Plan, August 2015 acknowledges that "As of October 2014, all planned 121 POIs were completed, and RSPs are now able to connect to all FANs sites. While largely rolled out, the shift to the MTM model presents new requirements that are being worked on to support the technologies."

The cumulative capital costs of the Transit Network were \$1.2 billion^{xxx} as at 30 June 2015 according to NBN Co's FY2015 Results presentation. This compares with NBN Co's Corporate Plan, June 2013 estimate of \$1.4 billion^{xxxii} to end of FY2015 (completion of the POIs and FANs) and \$2.3 billion^{xxxii} to the end of 2021, which included \$0.9 billion for capacity augmentation between 2016 and 2021. In other words, the Transit Network as originally designed for an FTTP rollout, has been delivered completely in line with NBN Co's Corporate Plan, June 2013 estimates. In fact, slightly under in cost terms. What the latest Corporate Plan hints at is that the change to an MTM rollout will require significant changes – and additional cost – to the Transit Network.

Transit	NBN Co 2013 Est	Dec 2013 Strat Review	Aug 2015 Corp Plan
Total Cost	\$1.4Bn	-	\$1.5Bn

Similarly with IT systems, the move to a much more complex MTM network will undoubtedly require substantial changes to NBN Co's IT systems. The new Corporate Plan highlights that after two years, NBN Co has not completed the development of the IT systems needed to support a commercial launch of either FTTN or HFC. This is not a consequence of some deficiency in the original IT systems, which were developed to support FTTP, Fixed Wireless and Satellite, not HFC or FTTN.

Whether or not these changes and additional costs - that are directly and solely attributable to introducing FTTN and HFC - were anticipated by the team of consultants and NBN Co at the time of the Strategic Review is impossible to determine based on publicly available information. But statements made more recently would indicate that the Strategic Review estimates of IT costs relating to the HFC and FTTN networks were significantly underestimated.

HFC and FTTN

Which brings us to the only two things left on the capital cost side – HFC and FTTN. And these are the real culprits of the \$15 billion increase. Not previous management, not inadequate financial systems, not hidden costs in the FTTP rollout. Mr Turnbull has consistently talked up the cost and time taken to roll out an FTTP network and talked down the costs and time to taken to roll out FTTN and HFC. And now the chickens are coming home to roost.

Its impossible to tell from the Strategic Review what the cost per premises assumptions were for HFC and FTTN, or how they compare with the new assumptions set out in the latest Corporate Plan. It's a fair guess that the latest costs will be considerably higher than those assumed in the December 2013 Strategic Review.

The outcome of NBN Co's renegotiation of the Telstra Definitive Agreements, which had barely commenced at the time of the December 2013 Strategic Review, would have had to be factored into the costs. NBN Co has released scant details on the renegotiated Telstra agreement, but we do know that NBN Co is now responsible for the remediation and maintenance of large parts of the network that were previously Telstra's sole responsibility. It would be very unlikely that the renegotiation of the Telstra deal has not contributed significantly to the \$15 billion increase.

Revenues

Just as – if not more – significant than the increase in costs is the delays to the HFC and FTTN rollouts and the impact that these will have on NBN Co's revenues. The justification for moving from FTTP to the MTM was that HFC and FTTN would be much faster to roll out than FTTP, which would have the double benefit of getting fast broadband to more Australians sooner whilst simultaneously bringing forward substantial revenue for NBN Co, thereby reducing its funding requirement.

In April 2013 it was promised that "everyone in the nation should have access to broadband with download data rates between 25 and 100 megabits per second by 2016" And "between 50 and 100 megabits per second by the end of 2019 in 90 per cent of fixed line footprint".

The claims for the MTM rollout have changed radically over time. In April 2013 it was promised that 8.9 million premises would have access to not less than 25 Mbps via HFC or FTTN by June 2016 con In December 2013 it was said that 3.2 million premises would have access to 25 Mbps by 2016 via HFC and FTTN con In August 2015, this promise has been revised again – to just 0.5 million having access to 25 Mbps via HFC and FTTN by 2016 con In Section 15% of what was promised in December 2013, and just 5% of what was promised in the lead up to the last Federal Election.

According to the latest Corporate Plan NBN Co will still achieve the 2020 completion date for the FTTN / HFC rollouts. But very few HFC or FTTN customers are activated today and a mere 75,000 are now projected to be activated by June 2016^{xxxviii}. And yet in 2017 NBN Co now forecasts that it will activate almost 1 million new HFC and FTTN customers, rising to 1.7 million new HFC and FTTN activations in 2018^{xxxii}.

The reduction in HFC and FTTN paying customers between 2015 and 2018 can be expected to have a significant impact on NBN Co's revenues – thus contributing to the \$15 billion increase in total funding required. This will be further compounded by the additional interest bill that NBN Co will now have to suffer as a result of its increased borrowings.

Operating Expenses

According to the latest Corporate Plan, August 2015, operating expenses will increase from \$1.6 billion in FY2015 to \$4.6 billion in FY2018^{xl}.

A significant part of this increase is no doubt attributable to increased payments to Telstra under the new Definitive Agreements as the network is rolled out. It will also presumably include a substantial increase in salary costs as NBN Co has announced its intention to increase its workforce from 3,600 to 4,500. There will also be additional costs associated with the operation and maintenance of the FTTN and HFC networks and, presumably, payments relating to the maintenance of Telstra's copper network as NBN Co progressively assumes responsibility for this. All of these costs were – or should have been - known when the Strategic Review was prepared in 2013.

Conclusion

The team of consultants and management put in place following the September 2013 election were solely responsible for the assumptions in the December 2013 Strategic Review. The assumptions that relate to the 'legacy' parts of the NBN inherited from the Labour Government (FTTP Brownfields, FTTP Greenfields, Fixed Wireless, Satellite and FTTP Transit) appear to be largely consistent with, and in some cases <u>below</u>, the assumptions in the Corporate Plan, June 2013. And well below those in the Strategic Review. On balance, they would have resulted in a lower funding requirement than assumed in the Strategic Review – notably because of apparent reductions in FTTP Greenfields, Fixed Wireless and Satellite spend.

It is time to stop trying to blame the previous Government and management for the problems with the costs and timing of the MTM and admit that the cost to role out HFC and FTTN and the timescale that would be needed were grossly underestimated by the Coalition. That is why we are now seeing a \$15 billion increase from the Strategic Review and a \$26.5 billion increase from commitment in April 2013.

In fact, the only thing that the past two years has demonstrated is that the only parts of the MTM that are providing services to end users of the NBN are those parts that continued the work of the previous Labour Government:

The myth regarding NBN's revenue

It has consistently been claimed that NBN Co's previous revenue projections for the FTTP rollout were wildly optimistic, and in all of the Coalition's projections for an FTTP rollout revenues have been slashed. To justify this three arguments have been made:

- 1. the Take-Up of NBN FTTP services will be much less than previously forecast
- 2. the Average Revenue Per User (ARPU) will be much less than previously forecast
- 3. the rollout of FTTP will take many years longer than previously forecast

Each of these arguments was wrong.

Take up of services on the NBN

In its Corporate Plan, June 2013 NBN Co forecast an eventual take up rate of 74%^{xli} in the FTTP footprint. This assumed 13%^{xlii} of all premises (or 16%^{xliii} of households) would be mobile-only and 13%^{xliv} would be vacant/not take an NBN service.

In April 2013 the Coalition argued that NBN Co had got this wrong, and that mobile substitution for fixed line broadband would be much higher than NBN Co was estimating. According to this argument, mobile-only homes would rise to 25%, resulting in overall take up of just 64% by 2021^{xiv} and 67.5% xivi by 2028.

And yet in the latest Corporate Plan, August 2015 the projected take-up for the inferior MTM network is forecast to hit 73% xivii - almost identical to the 74% previously criticised for the FTTP network. And the proportion of mobile-only premises is now forecast to be 15% xiviii - very similar to NBN Co's Corporate Plan, June 2013 forecast of 13%.

It would appear that on the question of take-up, the latest NBN Co Corporate Plan now acknowledges that previous management actually got it about right.

Average Revenue Per User (ARPU)

It was consistently claimed by the Coalition that NBN Co had vastly overestimated the average revenue per user (ARPU) to inflate its revenue projections. In April 2013 it was said that NBN Co's ARPU forecasts were "clearly out of line with recent experience".

We only need to look at how actual ARPU (as reported by NBN Co in its Annual Reports) has tracked over the past three years relative to NBN Co's earlier forecasts and compare that with the Coalition policy document forecasts for the same period:

	NBN Co Forecast		Mr Turnbull Forecast
		Corporate Plan	Coalition Plan
(\$/month)	Actual ARPU	Jun-13	Apr-13
FY 2013	37	33	25
FY 2014	37	30	26
FY 2015	40	36	29

Source:

Actual ARPU: NBN Co Annual Reports FY2013, FY2014, FY2015

NBN Co Corporate Plan, June 2013, Page 100 Coalition Plan for Fast Broadband, April 2013, page 23

What is clear is that actual ARPU has in fact risen <u>faster</u> than NBN Co previously forecast, with actual ARPU consistently coming in above NBN Co's Corporate Plan, June 2013 projections.

In fact, actual ARPU in FY2015 of \$40 is already well above where the Coalition policy said it would be in 2021 (\$38¹) – the last date shown in The Coalition Plan for Fast Broadband.

So when it comes to accuracy of forecasts, history has proved that NBN Co was, if anything, conservative in its forecasts for ARPU.

Time to complete an FTTP NBN

It has consistently been claimed that the time taken to complete an FTTP-based NBN would be many years longer than originally estimated. The latest Corporate Plan perpetuates that notion, arguing that an FTTP NBN may not be completed until as late as $2028^{ii} - 8$ years longer than the time estimated to complete the MTM.

For that to be correct, one has to assume that for the next 13 years NBN Co will rollout just 12,300 premises per week on average. Fewer premises than it regularly passes each week today.

It is almost certainly true that an all FTTP NBN would take longer to complete than its inferior MTM counterpart. But it would likely only be longer by 1 – 3 years, depending on how quickly NBN Co and its construction partners could ramp-up FTTP construction beyond current levels (and, of course, depending on whether the MTM, with all its complexity, can really be completed by 2020 as promised).

An FTTP-based NBN would likely take longer to complete compared with one based on FTTN and HFC - that has been the experience of Telcos around the world and it is likely that Australia would be no different. What is not credible however, is that the MTM network could be completed within 5 years, but it would take 13 years to complete an FTTP network – nearly three times as long.

For a 2028 finish date for an FTTP network to be true NBN Co would be completing approximately 12,300 brownfields FTTP premises per week on average.

For the past few months NBN Co has been passing an average of 10,000 – 15,000 premises per week. With some weeks reaching close to 25,000 per week.

Is it credible that for the next 13 years NBN Co would actually roll out fewer premises per week than it regularly achieves today? In 13 years could the company and the industry really do no better than they are already doing in a program that is scheduled to be terminated soon?

And yet, we are assured, the same company with the same construction partners can achieve "exponential" growth and complete the MTM by 2020.

In an FTTP program where a steady flow of work was guaranteed over a period of years (as opposed to the winding-down FTTP program of work that we currently have) it is not unreasonable to expect that NBN Co and its partners would be able to lift FTTP volumes substantially from their current levels.

Claims regarding the Long Term Satellite

Throughout 2012 and 2013 NBN Co was strongly criticised for its decision to build two satellites in order to provide fast broadband coverage to remote and regional areas. The Coalition claimed that this was extravagant 'gold plating' because there was enough spare capacity on existing satellites that NBN Co could use.

Mr Turnbull said "There is enough capacity on private satellites already in orbit or scheduled for launch for the NBN to deliver broadband to the 200,000 or so premises in remote Australia without building its own"ii.

He also claimed "When these two satellites are launched there will be huge spare capacity on them. Once again, NBN is investing more than is needed to achieve its mission" liii.

However, in the Strategic Review in December 2013 Mr Turnbull reversed his position and argued that NBN Co actually needed to build not two but <u>three</u> satellites: "Further Satellite capacity may be the only viable solution"

The latest Corporate Plan makes no mention of a third satellite and appears to assume that two satellites, as originally envisioned by NBN Co, will be sufficient.

The Cost of the MTM

Prior to the 2013 Federal Election the Coalition promised that the MTM would be built at a total funding cost of \$29.5 billion^{lv}.

In December 2013 it was admitted that these estimates were wrong and a revised estimates of \$41 billion^{lvi} was given for the funding cost for the MTM.

In August 2015 the estimate of the possible funding cost for the MTM was revised again – up to \$56 billion^{lvii}.

So in two years, the funding cost of the MTM has increased from \$29.5 billion to \$41 billion to up to \$56 billion

Given that very few premises have yet been activated on either HFC or FTTN there is no way of knowing if the latest cost estimates for the MTM are going to be any more accurate than the previous estimates. The latest Corporate Plan certainly contains enough warnings and caveats to raise serious doubts.

The Cost of an FTTP Rollout

In NBN Co's latest Corporate Plan August 2015 it is claimed that the funding cost of an FTTP rollout of the NBN would be up to \$84 billion^{lviii}. This compares with the Coalition's estimate of \$94 billion^{lix} in April 2013 and of up to \$73 billion^{lx} in the December 2013 Strategic Review.

It is very hard to know what an FTTP rollout would now cost because all of the costs and complexities of the MTM cannot now be simply wished away. The additional costs of the MTM will remain even if a decision were made to revert some or all of the rollout back to FTTP.

What is beyond doubt is that the costs and the timescale associated with FTTP continue to be greatly overestimated.

Can FTTN really provide the Broadband that Australia needs?

The Coalition has consistently asserted that FTTN can provide sufficient speeds to meet Australia's needs well into the 21st century.

In April 2013, at the launch of the Coalition's Broadband policy, Mr Abbott made clear the Coalition's view on how much broadband is 'enough' "we are absolutely confident that 25 megs is going to be enough, more than enough, for the average household" is.

Since 2013 an increasing number of Telcos around the world have accelerated their move away from FTTN and towards FTTP. And they have done this because they recognise that FTTP is the most cost effective long-term solution to providing the broadband infrastructure that will help power competitive economies through the 21st century.

There has never been any debate that FTTP provides the best technical solution to meeting a nation's broadband infrastructure needs. But around the world capital constrained Telcos with a heavy sunk investment in copper networks have, quite understandably, sought to extend the useful life of those networks by upgrading them to offer FTTN. Not all Telcos did this – and particularly in Asia there were already moves underway well before 2013 to replace legacy copper networks with new FTTP networks.

In 2013 many incumbent Telcos were still promoting FTTN as a viable broadband solution. AT&T was amongst those Telcos that were rolling out FTTN in 2013, and much was made of this in the lead up to the 2013 Federal Election to justify the position that FTTN was good enough for Australia [XIII].

However, over the past two years the demand for broadband has continued to grow rapidly around the world. So much so that in many cases, those same Telcos are now electing to move to FTTP:

AT&T

In April 2015 AT&T, the largest Telco in the US, announced it was expanding its FTTP rollout. "Demand is growing for faster broadband speeds than AT&T, or anyone else for that matter, can deliver with FTTN, which cannot match the highest speeds tiers offered by ... rivals in the marketplace" the second speeds that the marketplace.

"These harsh competitive realities were the principal driver of AT&T's decision to accelerate its long term upgrade strategy to extend its fibre deployment all the way to the premise." | IXV

Verizon

In May 2015 Verizon, the second largest Telco in the US, announced it was expanding its FTTP rollout to all of its 2,000 exchanges. "The copper network today does not serve the need of our customers. This is our way of truly transforming our network" livi

Telcos around the world are recognising that FTTP is the most cost effective way to provide the broadband infrastructure that is needed to stay competitive into the future.

The NBN is not – and never was – about providing enough bandwidth for people to stream Netflix at home. It is about providing the vital infrastructure that Australia needs to stay competitive in the 21st century. And that should have meant a ubiquitous FTTP network, not a mishmash of technologies using old cable, with higher operating costs.

As long as Australia's broadband future is tied to an aging copper network, we will fall further and further behind our competitors and trading partners. At a cost of \$56 billion and counting, that will be Mr Turnbull's legacy.

Accounting Systems and Cost Per Premises

Mr Turnbull has persisted in his claims that under previous management NBN Co had inadequate accounting systems and that the 'real' costs – and in particular costs per premises - were almost double what management were reporting in 2013.

Malcolm Turnbull
Press Conference
Sydney
24 August 2015

"As at the end of 2013, the company's cost accounting systems frankly were so poor that they did not actually know how much it was costing to connect premises with fibre. To give you just one example, and of course these inadequacies flowed through every type of construction, but just to give you one example, in 2013 the NBN Co management said that it was costing them between 2200 and \$2500 on average to connect premises with fibre. That was not true. It was not true then and it's not true now. The cost on average was then and is now in terms of direct capital expenditure about \$3600, as the chief financial officer will explain shortly. And then you've got to add to that another \$700 in leasing costs for Telstra pits and pipes.

So you can see that the ... inadequate financial information, poor management of the company several years ago at the time of the election was a major obstacle to getting this job done."

Mr Turnbull omits to mention that he is not comparing apples with apples. On a true like-for-like basis the FTTP Brownfields cost per premises as previously reported by NBN Co in 2013 is approximately \$3,900 lxvii, not \$2,200-2,500 as claimed by Mr Turnbull. This \$3,900 compares with NBN Co's current estimate of \$4,387. The \$500 difference between NBN Co's estimates in 2013 and the current estimate is due to claim settlements, variations and rates increases that were agreed with Construction Partners by the NBN Co management team in 2014.

In 2013 NBN Co reported that its best estimate of third party construction costs for the FTTP network for areas already underway or completed was \$2,600^{lxix} per premises (\$1,500 for LNDN and \$1,100 for customer connect). At the time NBN Co made it clear that these costs did not include i) lease costs^{lxx} and ii) capitalised internal labour costs^{lxx}, which were tracked and accounted for separately by the company at the time. \$2,600 per premises was the best estimate of what NBN Co would need to pay its construction partners for work already completed or underway, based on the mix of aerial and underground infrastructure being deployed at the time.

In 2014 NBN Co changed the way it reported cost per premises to a 'fully loaded' basis, adding in lease costs and capitalised internal labour this change was, in and of itself, quite legitimate. During 2014 there was also a significant shift away from aerial deployment to more expensive underground deployment to However, Mr Turnbull has continued to compare the cost per premises reported under the 'old' methodology with the cost per premises now being reported under the 'new' methodology without mentioning that this is not comparing like with like.

A true like-for-like comparison is as follows:

	Current NBN Co Annual Results FY 2015	Previous NBN Co 2013	Variance
LNDN Customer Connect	2,080 1,552	1,731 1,375	349 177
	3,632	3,106	526
LNDN Duct Lease	755	755	0
Total	4,387 ^{lxxiv}	3,861 ^{lxxv}	526

Far from being a difference of over \$2,000 per premises (or 80%) as implied by Mr Turnbull, the true like-for-like difference is closer to \$500 (or about 10-15%).

\$500 per premises is still a significant number, and if extrapolated across the entire build it would add almost \$5 billion to the cost of a full FTTP NBN. So why was it not included by NBN Co in its 2013 estimates? The answer lies in what this additional cost represents, which can be broken down into two main elements:

- 1) claims settlements that NBN Co agreed with its Construction Partners during 2014 relating to work completed up to the end of 2013. This accounts for \$120 per premises leave.
- 2) contract variations and increased contract rates that NBN Co agreed with its Construction Partners in 2014 for new work commenced after 2013, and in some instances applied retrospectively to work already done. This accounts for \$281 per premises location.

The balance of \$125 per premises is unaccounted for based on publicly available information, but is likely to be related to 2) above.

In the course of 2013 NBN Co had agreed to a number of rate increases and other financial accommodations for its Construction Partners. NBN Co, in 2013, would not agree to demands for higher rates simply to get a short term increase in the pace of the rollout unless it felt that rate increases were justified and in the best long-term interests of the project.

In 2013 NBN Co did not believe that further substantial rate increases were warranted, and had therefore not factored these in to its costs (over and above the \$3.6 billion contingency already factored in). During the course of 2014 NBN Co's new management subsequently acquiesced to demands from the Construction Partners and agreed to settle a large number of claims and agreed to further rate increases (over and above those already agreed by NBN Co in 2013).

The claims settlements and rate increases in 2014 may have been expedient for new management in order to 'clear the decks' and motivate Construction Partners to continue working on an FTTP rollout that was now scheduled for termination. But whether those settlements and rate increases would have been necessary in a continuing (indeed, accelerating) FTTP rollout we will now never know. What is certain is that, having once agreed to higher rates, NBN Co would find it harder to bring them back down again.

Regarding NBN Co's accounting systems, Mr Turnbull also omits to mention that 5 years of independent audits by the Australian National Audit Office and PricewaterhouseCoopers and a specially commissioned, detailed forensic review by Korda Mentha in 2013 failed to identify any material deficiencies in NBN Co's accounting systems.

NBN Co's statutory accounts have been subject to a full independent audit by the ANAO/PwC every year since its inception. Every year it has received a clean audit report. That simply would not be possible if the accounting systems were deficient.

As part of the Strategic Review conducted at the end of 2013, Korda Mentha was specifically tasked with conducting an extremely detailed forensic review of NBN Co's accounting systems and records, covering the entire history of the company from 2009 to the end of 2013. Korda Mentha's conclusion at the end of this detailed forensic examination was that "The Independent Assessment (based on a forensic investigation) found that no material issues exist within the accounts of NBN Co." IXXVIII

So there was nothing wrong with NBN Co's cost accounting systems – and nothing wrong with its estimates of costs.

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i NBN Co Corporate Plan, August, 2015, page 68
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ii Strategic Review, December 2013, page 102i

iii The Coalition Plan for Fast Broadband, April 2013, page 15

iv NBN Co Corporate Plan, August 2015, page 67

v Strategic Review, December 2015, page 61 Exhibit 2-25 (\$1,997 + \$2,100)

vi NBN Co Corporate Plan, August 2015, Table 2, page 39

vii Strategic Review, December 2013, Exhibit 4-2, page 97

viii NBN Co Corporate Plan, June 2013, section 12.6.1, page 76

ix Strategic Review, December, 2013, Exhibit 2-25, page 61

x see Appendix 2: Summary of Actual and Forecast Expenditure

xi see Appendix 2: Summary of Actual and Forecast Expenditure

xii NBN Co Corporate Plan, August 2015, page 66

xiii See Appendix 2: Summary of Actual and Forecast Capital Expenditure

xiv NBN Co Corporate Plan, August 2015, page 16

xv See Appendix 2: Summary of Actual and Forecast Capital Expenditure

xvi NBN Co Corporate Plan, August 2015, Table 4, page 60

xvii NCB Co Corporate Plan, August 2012, as analysed in Strategic Review, Exhibit 2-25, page 61 (the published 2012 Corporate Plan provided an aggregated number of Fixed Wireless and Satellite; the disaggregated numbers supporting this were provided in the Strategic Review)

xviii Strategic Review, December 2013, Exhibit 2-25, page 61

xix Strategic Review, December 2013, Section 2.5.3.5, page 65

xx Strategic Review, December, 2013, Exhibit 4-2, page 97

xxi Strategic Review, December 2013, Section 2.5.3.5, page 65

xxii see Appendix 2; Summary of Actual and Forecast Expenditure

xxiii NCB Co Corporate Plan, August 2012, as analysed in Strategic Review, Exhibit 2-25, page 61 (the published 2012 Corporate Plan provided an aggregated number of Fixed Wireless and Satellite; the disaggregated numbers supporting this were provided in the Strategic Review)

xxiv NBN Co Corporate Plan, August 2015, Table 4, page 60

xxv NBN Co Corporate Plan, August 2015, Table 2, page 39

xxvi Strategic Review, December 2013, Exhibit 2-5, page 61. The Fixed Wireless figure of \$2.5 bn is redacted, as is the Satellite figure under the Revised Outlook. The Satellite figure is easily back solved as the balancing number

xxvii Strategic Review, December 2013, Exhibit 4-2, Page 97

xxviii NBN Co Corporate Plan, June 2013, Section 13.7.1, page 87

xxix NBN Co Corporate Plan, August 2015, page 53

xxx NBN Co Annual Report, Results Presentation, page 13

xxxi NBN Co Corporate Plan, June 2013, section 9.6.1, page 48

xxxii NBN Co Corporate Plan, July, 2013, Section 9.6.1, page 47

xxxiii The Coalition Plan for Fast Broadband, April 2013, page 6

xxxiv The Coalition Plan for Fast Broadband, April 2013, page 6

xxxv The Coalition Plan for Fast Broadband, April 2013, page 7

xxxvi Strategic Review, December 2013, Exhibit 4-2, page 97 (0.550 mn FTTN + 2.610mn HFC = 3.16 mn)

xxxvii NBN Co Corporate Plan, August 2015, Table 4, page 60

xxxviii NBN Co Corporate Plan, August 2015, Table 5, page 63

xxxix NBN Co Corporate Plan, August 2015, Table 5, page 63

xl NBN Co Corporate Plan, August 2015, Table 1, page 31

xli NBN Co Corporate Plan, June 2013, section 15.3.2, page 97

xlii NBN Co Corporate Plan, June 2013, Exhibit 15-4, page 97

xliii NBN Co Corporate Plan, June 2013, Exhibit 15-4, page 97

xliv NBN Co Corporate Plan, June 2013, Exhibit 15-4, page 97

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xlv The Coalition Plan for Fast Broadband, April 2013, Background Papers, page 26
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¹ The Coalition Plan for Fast Broadband, April 2013, Background Papers, page 23

li NBN Co Corporate Plan, August 2015, page 39

lii The Courier/Sydney Morning Herald, 30 August 2015

liii Sydney Morning Herald, 13 February, 2012

liv Strategic Review, December 2013, section 2.5.3.6, page 66

^{lv} The Coalition Plan for Fast Broadband, April 2013, page 15

lvi Strategic Review, December 2013, Exhibit 4-6, page 102

lvii NBN Co Corporate Plan, August 2015, page 68

lviii NBN Co Corporate Plan, August 2015, page 39

lix The Coalition Fast Broadband Plan, April 2013, page 15

lx Strategic Review, December 2013, Exhibit 4-6 Scenario 2, page 102

lxi Tony Abbott, press conference 9 April, 2013

lxiii The Coalition Plan for Fast Broadband, April 2013, Background Papers, page 10

lxiv AT&T, submission to US Federal Communications Commission, April, 2015

lxv AT&T, submission to US Federal Communications Commission, April, 2015

lxvi Verizon Communications Inc, May 2015

lxvii see Appendix 1

lxix see Appendix 1

lxx JCNBN 19 April 2013, Hansard page 8

lxxi JCNBN 19 April 2013, Hansard pages 15-16

lxxii Senate Committee 24 February 2015, Hansard page 151

lxxiii Senate Committee 24 February 2015, Hansard page 162

lxxiv see Appendix 1

lxxv see Appendix 1

lxxvi see Appendix 1; Senate Committee 24 February 2015, Hansard page 158

lxxvii see Appendix 1; Senate Committee 24 February 2015, Hansard pages 158-166

lxxviii Strategic Review, December 2013, page 12

xlvi The Coalition Plan for Fast Broadband, April 2013, Background Papers, page 26

xlvii NBN Co Corporate Plan, August 2015, page 48

xlviii NBN Co Corporate Plan, August 2015, page 49

xlix The Coalition Plan for Fast Broadband, April 2013, page 22

Appendix 1: Reconciliation of FTTP Brownfields CPP

The like-for-like cost for FTTP Brownfields is \$1,731 LNDN + \$1,375 Connect = \$3,10

Overall Like-for-like Comparison			
·	Total	LNDN	Connect
2013 NBN Co Estimate - restated	3106	1731	1375
2014 Claims Settlements 2014 Variations and Increased Rates Other	120 281 125	120 229	52 125
2015 NBN Co Estimate	3632	2080	1552
Leases	7 55	755	
2015 Fully Loaded CPP	4387	2835	1552

The LNDN cost of \$1,731 is calculated in Table C below.

The Connect cost of \$1,375 is calculated in Table D below.

Duct lease costs in respect of the FTTP Brownfields rollout are derived directly from the Telstra Definitive Agreements and remain substantially unchanged between 2013 and current estimates.

Table C: FTTP Brownfields Cost Per Prem	ises - LND					
LNDN		Cost Per Premises	Comment	Source		
2013 NBN Co estimate		(\$) 1500		Senate Estimates 19 November 2013 (Hansard p105)		
Reclassified Internal Labour - from other capex (PM & D) - from opex	100 131		Reclassification of costs previously shown under "Project Management & Design" Reclassification of costs from Opex to Capex	JCNBN 19 April 2013 (Hansard p16) Senate Committee 24 February 2015 (Hansard p166)		
		231				
Restated like-for-like 2013 LNDN CPP		1,731				
2014 agreed Variations & Increased Rates	s	229		Derived as balancing number		
2014 agreed Claims Settlements		120	Unclear if these are one-off or expected to recurr	Senate Committee 24 February 2015 (Hansard p158)		
NBN Co FY2015 Results 2,080				Annual Results August 2015		
NBN Co FY2015 Results		2,080		Annual Results August 2015		
NBN Co FY2015 Results		2,080		Annual Results August 2015		
NBN Co FY2015 Results Table D: FTTP Brownfields Cost Per Prem	nises - Cust	·		Annual Results August 2015		
	nises - Cust	tomer Connect Cost Per Premises	Comment	Annual Results August 2015 Source		
Table D: FTTP Brownfields Cost Per Prem	nises - Cust	tomer Connect	Comment	·		
Table D: FTTP Brownfields Cost Per Prem	nises - Cust	tomer Connect Cost Per Premises (\$)	Comment Reclassification of costs from Opex to Capex	Source		
Table D: FTTP Brownfields Cost Per Prem Connections 2013 NBN Co Estimate	nises - Cust	Cost Per Premises (\$) 1100		Source JCNBN 19 April 2013 (Hansard p7)		
Table D: FTTP Brownfields Cost Per Prem Connections 2013 NBN Co Estimate Capitalised Internal Labour	nises - Cust	Cost Per Premises (5) 1100	Reclassification of costs from Opex to Capex	Source JCNBN 19 April 2013 (Hansard p7) Senate Committee 24 February 2015 (Hansard p162)		
Table D: FTTP Brownfields Cost Per Prem Connections 2013 NBN Co Estimate Capitalised Internal Labour Aerial Mix impact		Cost Per Premises (S) 1100 39 236	Reclassification of costs from Opex to Capex	Source JCNBN 19 April 2013 (Hansard p7) Senate Committee 24 February 2015 (Hansard p162)		
Table D: FTTP Brownfields Cost Per Prem Connections 2013 NBN Co Estimate Capitalised Internal Labour Aerial Mix impact Restated like-for-like 2013 CPP		Cost Per Premises (5) 1100 39 236	Reclassification of costs from Opex to Capex	Source JCNBN 19 April 2013 (Hansard p7) Senate Committee 24 February 2015 (Hansard p162) Senate Committee 24 February 2015 (Hansard p162)		

Appendix 2: Summary of Actual and Forecast Capital Expenditure FY10 – FY18

	Cumulative to FY2013	Actual FY14	Actual FY15	Cumulative to FY2015	Forecast FY16	Forecast FY17	Forecast FY18	Cumulative to FY18
	112013		1113	112013		,	1120	1110
FTTP Brownfields	0.8	0.7	1.5	3.0	0.9	0.9	0.7	5.5
FTTP Greenfields	0.3	0.1	0.2	0.6	0.2	0.2	0.2	1.2
HFC			0.0	0.0	0.5	0.8	1.3	2.6
FTTN			0.3	0.3	1.7	2.4	1.9	6.3
Satellite	0.5	0.5	0.2	1.2	0.3	0.1	0.1	1.7
Fixed Wireless	0.3	0.3	0.3	0.9	0.3	0.4	0.3	1.9
Transit	0.6	0.4	0.2	1.2				1.2
Common	0.7	0.5	0.4	1.6	1.0	0.6	0.5	3.7
	3.2	2.5	3.3	9.0	4.9	5.4	5.0	24.3

Source:

Actual FY14, Actual FY15 Actual Cumulative to FY2015 FY16,FY17,FY18 Forecasts NBN Co Annual Report 2015, Results Presentation, page 12 NBN Co Annual Report 2015, Results Presentation, page 13 NBN Co Corporate Plan, August 2015, page 66