



# L1 CAPITAL

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ATT: Tricia Jennings  
Project Manager, Regulation Branch – Telecommunications  
Commerce Commission New Zealand  
c/o [telco@comcom.govt.nz](mailto:telco@comcom.govt.nz)

The Commission published its further draft FPP price determination on the 2nd of July 2014 and asked for submissions from interested parties. As an independent Australian and international fund manager with current investments in New Zealand, L1 Capital has closely followed the FPP pricing process including making several past submissions and is once again thankful to the Commission for the opportunity to present our views.

The Commission has consistently spoken of its' preference for a stable, well established and orthodox approach to TSLRIC that will support investment incentives and benefits end users. In its August 2014 draft decision the Commission commented on how "by respecting reasonable investor expectations", "we should avoid any chilling effect on investment leading to a reduction in competition and a reduction in the long-term benefit to end-users."

In its July 2014 draft determination, the Commission commented that Section 18(2A) requires it to consider the "incentives to innovate that exist for, and the risks faced by, investors in new telecommunications services that involve significant capital investment and a determination that undermines incentives to invest would deter future investment and so would likely undermine competition over the long-term benefit of users." Similarly in rejecting Wrigley and the Company's suggestion to set the WACC below the mid-point estimate, the Commission further commented that such a move would;

- (a) "likely hinder any incentives to invest, which we consider is inconsistent with promoting competition for the long-term benefit of end-users"
- (b) "send a strong negative signal to investors in new telecommunications services which may be subject to regulation in the future"
- (c) "be unlikely to have any material impact on the level of competition in the retail market, because the resulting price decrease would apply to all RSPs; and
- (d) Potentially slow migration from copper to fiber below the efficient level, by effectively encouraging consumers to remain on copper for a longer period due to reduced prices..."

**Unfortunately the draft determination has made modelling assumptions which send a strong signal to existing and new investors in telecommunications services that the regulatory process is biased against the regulated entity and will impose an impossibly high efficiency standards which will mean efficient operators will not be able to recover their capital costs. We have exited part of our shareholding as a direct result of our decreased confidence in the ability to rely on Commission's prior views as basis for forming a judgement on the regulatory process. Industry feedback has been that other regulated industries are very concerned with the precedent in this draft determination.**

Although each modelling choice the Commission has made is subject to an estimation error, by consistently using assumptions which undercut real observed costs faced by Chorus and LFC's and by making assumptions about end demand which are not predictable and serve to depress derived UCLL price, the Commission has ensured that WACC/TSLRIC returns are set well below mid-point estimate. We have set out the Commission's draft assumptions below together with our high level thoughts which we will elaborate on further in this document.

	Dec 2014 Ruling	July 2015 Ruling	Comment
Demand	all copper connections TSO + non-TSO + fibre	All connections including HFC	The level of demand well beyond what any HEO network could realistically hope to achieve and well beyond what Chorus has today. Moreover, the Commission has not adjusted its demand assumption to exclude those customers that it has excluded from the asset base because of the assumption of a 100% capital contribution (see below). This means the monthly line cost is being artificially undervalued.
Capital Contributions TSO area	N/A	The cost of trenching for all lead-ins (from the property boundary to the building) is to be excluded from the TSLRIC cost.	<b>Why the cost of trenching is excluded for all lines if a capital contribution was required from a very small percentage of users?</b> It is fairly clear that the vast majority of users never paid a contribution charge for connection inside the TSO area. Chorus can give Commission exact number of the size and amount of contributions to avoid over recovery. This imposes another impossible efficiency standard on hypothetical operator. <b>Please see Appendix 1</b>
Capital Contributions –outside TSO area	N/A	As above with subdivisions and DSLAMS also excluded.	<b>Why the cost excluded for all lines if a capital contribution was required from a small percentage of users?</b> As above Chorus can give Commission exact number of the size and amount of contributions to avoid over recovery. <b>Please see Appendix 1</b>
Opex Efficiency Adjustment	50% reduction to Chorus costs	40% reduction to Chorus costs	L1 believes no rigour has been added from basing a very material driver of UCLL price on one study to basing it on median of several studies each of which have very different assumptions. Meanwhile Chorus, the efficient incumbent, Openreach, UK equivalent and even Comcast Cable, the largest US fibre operator cannot reach anywhere this level of efficiency. <b>What is the justification for imposing 40% efficiency adjustment on central overheads, insurance costs.etc..? Please see Appendix 1</b>

LFI adjustment	9.9%	9.4%	Despite TERA acknowledging that the far higher aerial deployment rate should increase LFI TERA's actual LFI rate has decreased and is now some 30% lower than Ireland target even though this is the next generation network that is the best comparable to efficient operator and has lower aerial deployment. <b>Please see Appendix 1</b>
WACC uplift - Optimisation risk	No allowance	No allowance	Given the large number of parameters each with significant forecasting error TSLRIC is inherently more unstable than RAB as we have seen through this TSLRIC process. This is fundamentally different from technology stranding risk. The current WACC does not compensate efficient operator from a regulatory regime which may change demand profile, number of lines, technology choices and build costs of the network. This risk is unique to Chorus investors amongst regulated utilities.
Non recurring costs	N/A	30% reduction	How can cherry picking the lowest cost from each jurisdiction for each activity be seen as realistic given some activities cross subsidise others? <b>Where in the world has this efficiency standard being achieved for NRC across all activities? Doesn't benchmarking on number of hours to perform task complete ignore population dispersion and technology mix? Why would Chorus overpay by such large margins for these activities? Please see Appendix 1.</b>
ORC/ DORC	ORC	ORC	We strongly believe that ORC approach is fundamental to integrity of TSLRIC process. However as the Commission notes even a DORC approach does not change parameters of price and therefore the use of ORC is not an offset for all the assumptions the Commission has used elsewhere.
Trenching costs	Beca report used as basis for trenching costs.	Trenching costs have decreased since the initial draft. Beca report notes that Auckland has not been considered in detail.	This is a material driver of TSLRIC. Chorus, with the benefit of existing assets has significantly higher cost than the hypothetical efficient operator in urban areas. <b>Neither LFC's nor Chorus who are building have been used to estimate trenching costs despite the fact these costs together comprise build costs for 75% of the population.</b> If the Commission has no confidence in Chorus's costs in rural areas why doesn't it at least incorporate costs for Chorus in urban areas? The trenching costs that the Comissions has referenced

			<p>simply can't be replicated in real build conditions and impose an impossible high standard of efficiency. <b>Please see Appendix 1</b></p>
Demand Profile	100% demand profile	100% demand profile	<p>Commission has itself stated that “the competing fibre network being built, may result in the migration of end-users from the copper network to the fibre network” and it seems “<b>unlikely that Chorus will over-recover its costs on the copper network over the lifetime of its copper assets, when a certain proportion of its customers will migrate away to fibre before costs can be recovered.</b>” We query how this is consistent with constant demand profile being imposed on efficient operator?</p>

# Backdating

In their July 2015 determination Commissioners Gale and Welson reversed their previous position on backdating ruling that no backdating should apply. L1 believes that should this position be carried into the final determination it will have the effect of chilling investment and distorting investment decisions for all regulated industries in NZ. **Specifically it will highlight that no one can rely on prior Commission statements or legal precedent and that estimation errors in any regulatory process will not be amended. The beneficiaries will appear to the RSP's who will enjoy a wealth transfer from price rises they have already enacted on consumers.** In particular this decision will reward one RSP which has sought to distort the debate with misleading public campaign that neglects to mention the cost of its own high margin voice products in contributing to consumer bills. Our reasoning is set out below.

**Commission Reason 1: Backdating will retard investment by RSP's who are operating in workably competitive environment and any windfall gains have passed on to consumers. (868,869, 868.1).** The Commission has referenced the need to protect RSP's against backdating which would create "windfall losses" which could have some impact on "continued investment by RSP's" which is important for the "continued evolution of completion in broadband" with backdating "potentially impact on RSP investment incentives". Commissioners Gale and Welson have also referenced the RSP's are "workably competitive". Accordingly, any past "error" in prices should have been largely passed through to end-users and lump sum backdating will hurt RSP's ability to invest.

**L1 View: The market is not workably competitive but characterized by a high degree of market concentration and market power and each RSP is very well capitalized to make a lump sum payment.**

**Point 1: Benefits have largely accrued to shareholders of RSP's:** The current fixed line is characterized by a high degree of market concentration with Spark, Vodafone and Callplus under the Slingshot/Orcon brands controlling 90% of the market. The market has consolidated in the last four years with the purchase by Vodafone of TelstraClear and the merger of Slingshot/Orcon brands. Following the draft decision Spark, Vodafone and Callplus all raised their broadband prices by \$4 which highlights the degree of market power. This is not L1's view but is supported by a number of analysts in the market.

Arie Dekker in his analyst research report 5<sup>th</sup> June 2015 on Spark wrote "that the industry responded to the potential increase in UCLL pricing by putting up prices in early CY15." Macquarie telecommunications Andrew Levy in his 26<sup>th</sup> June 2015 report went further and showed that over 2.5 year period since IPP decision Spark has benefited to the tune \$27m as result of Commission's decisions **before** it raised price by \$4 per line to supposedly recover its costs. Therefore it appears that all recent \$4 price rise went to shareholders.

Fig 15 Impact to Spark from UBA and UCLL price changes

SPARK		UCLL	UBA	UCLL + UBA
Lines as at 31 December 2014		1,150	674	
Regulated input price at Separation Day	\$/mth		21.46	45.92
Final IPP price	\$/mth		10.92	34.44
Change (Final IPP - Separation Day)	\$/mth		-10.54	-10.54
<b>Revenue impact to Spark from Final IPP pricing</b>	<b>\$m</b>		<b>85.2</b>	<b>85.2</b>
Draft FPP price	\$/mth	28.22	10.17	38.39
Change (Draft FPP - Final IPP)	\$/mth	4.70	-0.75	3.95
<b>Revenue impact to Spark from Draft FPP pricing</b>	<b>\$m</b>	<b>-64.9</b>	<b>6.1</b>	<b>-58.8</b>
Total change (Draft FPP - Separation Day)	\$/mth	4.70	-11.29	-6.59
<b>Total revenue impact to Spark</b>	<b>\$m</b>	<b>-64.9</b>	<b>91.3</b>	<b>26.5</b>

Source: Macquarie Research, June 2015

Finally Commissioner Duignan highlighted that “Spark increased its prices immediately on seeing our TSLRIC modelling results.” and that “Spark’s price increases meant that its shareholders would not bear the cost of lump sum backdating to 1 December 2014”. Further Commissioner Duignan indicated that “Spark and Vodafone will be reluctant to reverse their price increases given this further draft decision indicates their current prices are reflective of the likely price review results.” **So in effect the decision to not backdate will simply create a windfall for RSP’s shareholders.**

**Point 2: The RSP’s are extremely well capitalized and it is very hard to justify how a one-time payment will impact their ability to invest:** Below we reproduce the financials of the three largest RSP’s in NZ alongside Chorus.

	Market Capitalisation	EBITDA	Dividend Paid	Stock Buybacks	Total Shareholder Returns	Net Debt	Net Debt/EBITDA	Broadband Market	
	12/08/2015	2014A	2013-2014	2013-2014	2013-2014	2014A	2014A	Share	
	\$NZD m	\$NZD m	\$NZD m	\$NZD m	\$NZD m	\$NZD m		Approx.	
Spark NZ	5,100	936	602	282	884	562	0.55x	50%	
Vodafone NZ(1)	134,000	700	150	0	150	n/a	1.10x	30%	
M2 Slingshot/Orcon	2,162	179	58	n/a	n/a	254	1.6	10%	
Chorus	1,080	649	0	0	0	2100	3.20x	n/a	
Note:	Vodafone Market capitalisation relates to parent group VOD.L								

As is evident from this table all three RSP’s are better capitalized than Chorus and it is extremely hard to see how a single lump sum payment would affect future investment if that payment can comfortably be met out of existing debt facilities.

Examining each RSP in detail in the case of Orcon there is an explicit additional payout that will be made to the owners of Orcon from M2 as the acquirer should backdating not occur. It is hard to see how this payment has anything to do with RSP incentives. In the case of Vodafone again it is easily within capabilities of the Vodafone Group and incremental innovation will be able to be funded. Finally in the case of Spark which claims that backdating will force it raise prices further and hamper cashflows it is currently undertaking a \$100m buyback on top of the \$282m completed in 2013-2014. **How can Spark credibly claim that \$100m transfers to shareholders will not hurt ability to innovate and doesn’t impact price but a smaller lump sum payment does?** Clearly Spark can also fund a lump sum transfer without impacting RSP innovation.

Commissioner Duignan appears to agree with our assessment highlighting that “Spark, Vodafone and CallPlus’ new owner’s financial strength will limit the impact of exposure to future lump sum backdating on their ability and incentives to finance investment”

**Commission Reason 2: Not backdating will have limited effect on long term infrastructure investment incentives given investors did not expect IPP to be materially above or below FPP and would not be impacted by backdating.**

**L1 View:** This is not a correct characterization of investor behavior including the behavior of L1 Capital. As is evident from our first submission to the Commission in August 2014 our investment relied on integrity of the FPP process and on precedent to correct what the Commission itself has acknowledged were the issues with IPP process highlighting “the accuracy of the IPP process is highlighted in the case of the UCLL price, where the last re-benchmarking process found only one comparable country, Sweden” (1808).

We highlighted several issues in the IPP process at the time and we invested based on our best estimate of ultimate FPP price which was significantly above IPP. We did not ever believe there was a symmetric probability of “IPP being above or below the FPP” and backdating formed a considerable part of our investment case.

Had L1 Capital known that despite the significant errors in the IPP price these issues would be ignored we would have not placed our capital at risk and nor do we believe would other investors.

**Commission Reason 3: There is nothing to be gained by reversing previous errors in pricing even if distortion has occurred as “reversing” that error will just create a different distortion. In any case errors are symmetric and non-systematic and do not introduce undiversifiable future risk to any future Chorus investment.**

**L1 View:** We are not sure how broadly the Commission intends to apply this logic but it seems incompatible with its previous statements that regulatory predictability is an important part of section 18. It also undermines regulatory regime as a whole. Specifically it seems to suggest that in regulatory decisions the Commission will correct errors in some initial determinations (electricity, gas etc...) but in others it will let errors stand.

By way of comparison if Chorus serially overcharged RSP’s for line charges and then claimed that its billing system was as likely to overcharge as to undercharge in the future and therefore no back payment needed to be made I doubt the Commission would find that acceptable. The same argument could be made if RSP’s serially overcharged customers and claimed that they just as likely to overcharge as undercharge in equal measure and compensation should not be payable. Finally as Commissioner Duignan highlighted “it would be difficult to sustain public confidence in the Commission if Chorus was allowed to retain what would likely be described as excessive revenue not consistent with the pricing principle”. The obvious inference is that Commission’s regulatory predictability will apply differently to different parties and rights of regulated entity to a fair process will not always apply.

As we discussed previously we did not view IPP/FPP outcome as symmetric and non-systematic but rather L1 along with other investors as well as Chorus and a number of RSPs formed a view on FPP price and relied on Commission to apply the process in a fair and transparent way. If the rights of investors are abrogated to the rights of others than it introduces an undiversifiable risk to all regulated entities in NZ not just Chorus.

**Commission Reason 4: Decision doesn't send add to undiversifiable risk to new infrastructure investors since it is not a "new investment" and it is not clear that a new investment would be "regulated" under and IPP/FPP.**

**L1 View:** We strongly disagree with Commission's assessment which goes to the heart of the strong negative signals the Commission is giving to infrastructure investors who are placing their capital at risk.

Line Fibre Companies (LFC) are currently making capital intensive investments in a new fibre network. These investors cannot and do not base long dated capital investment decisions based on future unknown regulatory regime. Instead they rely on the integrity of FPP process to adequately reward them for investment they make today. The Commission is sending a very real signal to these investors that, as well not being based on real world data around operating expenditure and capital costs, any review process will likely lack a clawback mechanism in the final decision. This increases the cost of capital for affected parties and mean that they may well face increased bankruptcy risk during draft decision period given these LFC's will not have a meaningful recurring revenues to draw on and have large capital needs. **Even if a backdating was to apply in the future the point is that these investors already face an increased cost of capital as a result of the uncertainty introduced today.** This runs contrary to the very goal of promoting competing for the end benefit of end users.

Chorus is also making real investments in its copper network and has spent \$130m million on its copper network investment in upgrading and expanding the copper network. Chorus face further capital decisions about investment in its copper network, decisions that are particularly important to the 20% of New Zealanders that will not have access to UFB rollout and have to rely on combination of RBI and upgrades to copper capability. Chorus has illustrated that significant capability exists to upgrade copper networks to bring them more in line with UFB capability. However these new investments now face a much higher hurdle rate than they did before Commission's draft decision. We do not believe investors in Chorus can support any investment which is likely to get stranded or not be backdated to reflect the capital costs when the alternative is dividends which cannot be taken again at the next regulatory decision. **By increasing the cost of capital to Chorus, the Commission is making it harder for Chorus invest in its incremental network to the detriment of end users.**



# Need for WACC uplift

The Commission has made several arguments against a WACC uplift in its draft determination. L1 believes there are strong arguments that a WACC uplift and we focus on two in particular:

- (a) restoring sufficient incentives to invest,
- (b) encouraging investment in copper services, particularly in non UFB areas and
- (c) breaking an existing retail communication environment which is highly concentrated and characterised by a high transfer of value from users to RSP's.

## **Restoring sufficient incentives to invest:**

L1 has illustrated that the Commission's current views on end demand, trenching costs, operating expenditure, LFI and non-recurring charges and others are far beyond the efficiency standard any new operator, fibre or otherwise would be able to achieve in the real world. We have not seen TERA being able to point to a single operator that replicates the level of capital and operating efficiency being modelled. This has resulted in the Commission setting WACC/TSLRIC returns well below mid-point estimate.

As Commission has pointed out setting WACC/TSLRIC below mid-point estimate will "likely hinder any incentives to invest", "be unlikely to have any material impact on the level of competition in the retail market" and potentially slow migration from copper to fiber below the efficient level". These estimation errors are a result of inherently unstable TSLRIC process relative to RAB.

The most obvious way of correcting these estimation errors is to acknowledge the inherent variability of TSLRIC process and apply an uplift to ensure returns are not below mid-point estimates. This is particularly important when considered alongside re-optimisation risk (again is not present in RAB regime) where in every regulatory reset the parameters are uncertain, estimation error is large, there is no recourse for prior estimation errors by the regulator.

## **Encouraging investment in copper services, particularly in non UFB areas:**

The Commission has expressed a view that there is limited justification for a WACC uplift to incentivise further investment in Chorus' copper network as the TSLRIC price is not sufficient to incentivise investment in higher cost rural areas where the bulk of any future copper investment would be needed.

This appears to be based on the idea that the averaged rural UCLL price of \$54.85 is below the allowed regulated price of \$27.59. L1 would like to point out that even under old retail minus regime the rural price of \$35.20 was insufficient to incentivise rural investment. Nevertheless Chorus invested significant capital in rural areas. What matters is that the Commission does not set an all in price which leaves Chorus to ration its capital and raises the cost of equity which results in Chorus not being able being to secure new capital to invest in the network.

The stark illustration of this has over last two years where Chorus has operated under IPP prices and capital has been highly rationed and the greatest period of underinvestment in rural network has occurred. Following IPP price Chorus announced further costs outs including a reduction in support staff, cut in all short term incentives, the reduction of proactive maintenance and a new review of service companies in FY14. Chorus's FY14 financial report characterized the extreme capital rationing of the business, stating that current situation has led to "reviewing our entire cost structure and this has required us to focus our limited available cash in areas that deliver short term cash rather than long term outcomes". A WACC uplift will ensure Chorus has sufficient capital free cash flow and access to capital to be able to invest in the rural network to the benefit of the 20% of New Zealand that does not have access to UFB.

## Conclusion

The Commission's draft determination if it's taken through to a final decision will raise regulatory risk for all regulated industries. By using an impossibly high efficiency standards not anchored on real world data the Commission has added additional risk to TSLRIC process and raised the cost of capital for LFC's and for Chorus as it continues to invest in its rural copper network. This is to the detriment of end users who will have reduced ability to switch to new and innovative services.

Not acting according to precedent on backdating will further distort investment decisions by introducing the risk that one cannot rely on prior Commission statements or legal precedent and that estimation errors in any regulatory process will not be amended. This will further affect end users in a range of industries by lifting the cost of capital and risk premia for NZ. The winners appear to be shareholders of largest RSP's who will have a windfall gain at expense of innovative entrants such My Republic, SkyTV and others who will not benefit from fibre adoption needed to deliver new innovative services and lower margins of the incumbents. Additionally the decision in our mind will favour those who has sought to distort the debate and act outside the process.

We thank the Commission for the opportunity to make this submission and look forward to engaging further in the process.



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**Raphael Lamm**  
Joint Managing Director



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**Lev Margolin**  
Portfolio Manager

## Appendix 1:

### LFI Adjustment

In its December 2014 determination the Commission used a “target” line fault index (LFI) of 9.9% to adjust opex associated with network maintenance. A reduction was applied to Chorus’ actual maintenance costs in proportion to the ratio of Chorus’ actual LFI to the target LFI. Analysys Mason submitted in response that there is evidence that aerial maintenance opex is in fact 50% higher than underground opex and given the modelled network has 47% overhead versus 5% for the Chorus network.

The Commission has agreed with Analysys Mason that, “...as a general principal, a higher proportion of aerial deployment can lead to a higher level of line faults and therefore higher network opex. Given that the modelled network of our hypothetical efficient operator has a higher proportion of overhead deployment relative to Chorus’ network on which the opex is based, we agree that this would likely result in higher line faults on our modelled network.”

The adjustment TERA made used what appears to be a single confidential source. It is unclear whether this adjustment is reasonable, and it still results in an LFI more than 25% below Chorus’ LFI of 15.8%. However, new figures have been published showing that Eircom is struggling to meet the target LFI (12.8%) due to a force majeure event (massive storms) for its real network that TERA have used in the modelling, with a real LFI of 16.4%. TERA then also note that the Irish data being used has been skewed by “massive storms” and makes some form of adjustment to derive an LFI that is 37% lower than Chorus’. So TERA is now applying a “target LFI” of 9.4% that is below its December LFI of 9.9% despite the adjustment for higher aerial opex.

**These adjustments are not transparent, cannot be interrogated and rely on a single country benchmark to set assumptions for NZ that may not be relevant and have the perverse effect of lowering LFI calculations based on one off weather events in a single country benchmark. As in our February 2015 submission we highlight that the Commission has access to a large variety of real data including data from global telecommunications companies that have rolled out fibre networks over the last 5-10 years and have real fault rates, data from NZ power transmission companies on line fault rates for overhead deployment, and line fault assumptions from Chorus and LFC’s business plans. Analysys Mason has presented quantitative studies which would allow TERA to assess real world performance of these networks instead of setting efficiency targets which no operator globally has been shown to be able to achieve. TERA’s analysis is simply not credible.**

## Trenching Costs

The Commission has asked Becca to provide advice to the Commission on likely cost of trenches and ducts and its preliminary opinion was published on 2<sup>nd</sup> December 2014. The limitation of the analysis have largely been highlighted by Becca itself and no significant new analysis has been completed to incorporate any meaningful real world data, particularly in relation to urban areas.

In its initial report Becca acknowledged estimates relied on “historical pricing data...limited supplier pricing and indicative ‘cover all’ rates obtained with a “minimum of time commitment” from contractors. Importantly in relation to urban areas Becca also noted that “soil and rock classifications have only been applied to rural areas” and Becca was uncomfortable applying a “specific soil or rock category for urban areas”. In its latest submission Becca noted “that the identification of shallow basalt or any other non-rippable rock deposits within an urban area was not included in the Becca geological team working brief” and that they agree with Aurecon “that that within the central Auckland urban area there is likely to be basalt rock at various levels beneath the upper soil layers”. Becca further indicated “It may be established as a result of the draft determination review process that a more detailed analysis of the Auckland urban area soil types may be necessary.”

Chorus highlighted exactly some of these challenges in fibre installation in Auckland and Wellington which represent 60% of its UFB deployment area citing the “volcanic rock type”, “hilly” topography with “access challenges” and “narrow roads and complex traffic management”. Overall according to Becca 25% of the trenching length can be classified as urban and may have a combination of these challenges.

**Trenching costs are one of the most material drivers of TSLRIC modelling and the Commissions has real world data from not only Chorus but LFC who are building across 75% of the country currently. Not using this data, especially for urban areas where Becca has acknowledged limitations of its analysis introduces a large estimation error and detracts from predictability of TSLRIC as a whole without any benefit to the analysis whatsoever. At a minimum If the Commission has no confidence in Chorus’s costs in rural areas why doesn’t it at least incorporate costs for Chorus in urban areas? Alternatively it could sample from selected urban centres across the country as build is complete and compare it to Becca’s estimates. The trenching costs that the Commissions has referenced simply can’t be replicated in real build conditions and impose an impossible high standard of efficiency.**

## Capital Contributions

The Commission has excluded various premises (subdivisions and infill housing built since 2001) on the basis that owners/developers are required to provide a trench. **Underground lead-ins have now also been excluded on the basis that Chorus has a connection fee of \$195 for new copper connections.**

This approach ignores the fact that

- a) Chorus/Telecom did not charge for the absolute majority of lead in connections in the TSO area. Almost everybody who has a phone line in NZ did not pay a connection fee for underground leads in. Why should lead-in costs for the TSO area be deducted when there is almost no double recovery in these cases which comprise the vast majority of the network? There is a TSO and 30S obligation to provide these services and there is no acceptable way within the Act to charge a contribution for the regulated lines.
- b) The \$195 fee was introduced to help alleviate the financial effect of the benchmark pricing. Chorus was capital starved due to its inability to absorb these costs and continue to deliver a regulated service. Chorus did not recover full costs of new connections for all premises built since 2011 but only a contribution necessary for it to maintain a basic level of service with its reduced cashflows. L1 agrees that for the total amount of contributions since 2011 should be excluded from model to avoid double counting.
- c) Chorus and other LFCs are providing free connections to residential premises within UFB areas (which covers 75% of New Zealanders)
- d) The Commission still assumes 100% demand despite the footprint carve-outs above.

**L1 would like to highlight the basic inequity of an approach where an IPP price which has now being recognised as too low in the draft FPP determination forced Chorus to make changes to its business model. Now as a result of IPP error not only is there no backdating for the lower IPP price but additionally Chorus is penalised as though all 2m households had paid Chorus a contribution when a very small fraction of households actually did so. These are the sorts of decision which have the effect of chilling investment and position the regulator as being entirely unpredictable in its approach.**

## Operating Costs

One of the most material modelling assumptions is the level of operating expenditures for the efficient new operator. In our previous submission we have highlighted that it difficult to compare TERA's analysis to any world telecom operator since it does not model expenditures by cost function (i.e. labour, provisioning, network maintenance, IT etc.) and has instead relied on a single study (now expanded to median of several studies) to make a single 40% efficiency adjustment across all lines of operating expenditure. TERA then makes a further LFI adjustment to reduce network maintenance costs on top of the 40% efficiency adjustment.

We have updated our analysis to reflect TERA's estimate of operating expenditure against real costs of Chorus to highlight the level of efficiency TERA is modelling.

Cost Line	Chorus FY14 Costs	TERA network maintenance adjustment(1)	TERA general efficiency adjustment	TERA Implied Cost Base	Explanation of cost item sourced from 2014 Chorus Annual Report
Labour	79		40%	32	Non capitalised staff costs. Excludes all external contractors and service providers.
Provisioning	56		40%	22	New of changed services to retail service providers,. Note this excludes almost all fibre provisioning which is separately capitalised.
Network Maintenance	99	25%	40%	74	Relate to fixing network faults and any operational expenditures arising from proactive management
Other Network	38	25%	40%	29	Service partner contract costs, engineering services, cost of network spares
IT Costs	55		40%	22	IT costs paid directly to 3rd party vendors and Spark shared services. Expected to increase post transition from Spark systems to reflect the costs to support a smaller scale organisation.
Rent	12		40%	5	Costs relating to operation of Chorus exchanges, radio sites and roadside cabinets.
Property	12		40%	5	Costs relating to operation of Chorus exchanges, radio sites and roadside cabinets.
Electricity	13		40%	5	Costs relating to operation of Chorus exchanges, radio sites and roadside cabinets.
Insurance	4		40%	2	Standard corporate cover
Consultants	5		40%	2	Regulatory work and other work
Other	36		40%	14	Non IT shared service costs with Spark as well as advertising, travel, training and legal fees. Non IT costs similarly expected to increase post separation from Spark shared services
<b>Total Costs</b>	<b>409</b>			<b>212</b>	

1. Adjustment from LFI of 9.4 to 15.6% for Chorus

**As we've stated in our previous submission TERA's analysis on operating expenditures is not credible and undermines the credibility of the entire TSLRIC process. L1 believes no rigour has been added from basing a very material driver of UCLL price on one study to basing it on median of several studies each of which have very different assumptions.**

In our last submission we compared the hypothetical TERA network on an operating cost per line basis against that of Chorus and OpenReach, the functionally separated UK copper and fibre infrastructure provider which provides the closest comparison to Chorus. Our submission was criticised given the fact that both are not next generation fibre networks. In reality OpenReach is a provider of both fibre and copper networks and the point of the analysis was to highlight the extremely high level of efficiency implied by TERA analysis. Nevertheless we have updated our analysis to include Comcast Cable communications division, a fibre provider of video and data services to 27m subscribers which serves as a good proxy for a next generation network, albeit one with significant scale advantages and with benefits of higher population density than the hypothetical efficient operator. We have separated out only the Comcast costs related to technical upkeep of the network and a share of overhead expenses tied to overall costs.

TERA Operating Costs for New Operator	Chorus Operating Expenditures (30/06/14)	OpenReach Operating Expenditures (BT Wholesale as of 31/03/2014)	Comcast Cable Communications Segment 30/12/2014
Number of Premises Passed (TERA) 1,815,420	Total Lines (30 August 2014) 1,781,000	Total Lines 17,245,298	Total fibre customers 27,035,000
	Less: Fiber Lines -42,000	Wholesale basic analogue internal service rentals 10,090,177	Single product customers 8,409,000
	Total Copper Lines 1,739,000	Wholesale basic external service rentals 2,921,188	Double product customers 8,750,000
Operating Costs(Implied) 211,550,000	Opex FY14E 409,000,000	Wholesale premium analogue internal service rentals 2,616,735	Triple product customers 9,876,000
		Wholesale premium analogue external 1,617,198	<b>Costs as Per Segmental Report</b>
Opex cost per line \$ 116.53	Opex cost per line \$ 229.65	Operating Expenditures(ex. Depreciation) 3,855,000,000	Product Costs 1,417,000,000
		Opex cost per line \$ 223.54	Technical Costs 4,100,000,000
			Programming 9,819,000,000
			Customer Service 2,205,000,000
			Franchise and other Regulatory Fees 1,296,000,000
			Advertising, Promotions 3,075,000,000
			Other(administrative) 4,116,000,000
			Total Costs 26,028,000,000
			<b>Costs comparable to Chorus/BT Wholesale</b>
			Technical Costs 4,100,000,000
			Pro Rata share of Administration Costs 779,221,499
			Total Comparable Costs 4,879,221,499
			Number of Lines 27,035,000
			Opex cost per line \$ 180.48

1. Administration cost allocation is calculated by allocation administration costs across Product, Technical, Programming and Customer Service Lines

As can be seen above according to TERA the efficient new operator will be 51% more efficient on a per line basis than Chorus and 35% more efficient than Comcast which has the advantage of higher population density and significantly better operating scale.

**The implication is that the new operator will have to achieve at least a 35% reduction relative to Comcast and 51% relative to Chorus in areas such as general staffing costs, IT costs, provisioning costs, accommodation costs, rent, insurance and the other cost line which do not have any additional efficiencies for a new fibre operator relative to either incumbent or a US fibre business. What is the justification for TERA to believe these costs are lower for efficient fibre entrant? Can TERA point out a single example of a real world operator which has achieved the target level of operating expenditure efficiency on a per line basis?**

**We reiterate our objection to TERA's analysis. If TERA can break out maintenance operating costs separately, why doesn't it model each other functional cost item in the same way?**

## Non Recurring Charges (NRC)

The Commission has modelled non-recurring charges for the first time in its July determination. TERA's advisors appear to have modelled transaction charges based on Chorus' costs with efficiency adjustments benchmarking other jurisdictions and adopting the lowest observed task time, where these are lower than Chorus' time and then run a cross check again a local fibre company (LFC).

L1 Capital would note the following on the NRC charges:

- a) New Zealand is fundamentally different to European benchmarks considered due to population dispersion, age/type of infrastructure in place and different electrical, plumbing and other technical standards which dictate the length of technician time required. Chorus has very different regional areas costs from one to another due to differences in travel time for the technician, labour cost and aggregation of customers. This is the fundamental problem of IPP analysis and using it for non-recurring charges is likely to materially understate NRC costs just as it did for UCLL price as a whole.
- b) Cherry-picking lowest cost activity from one of seven jurisdictions across a range of services presents a very high efficiency standard where if one set of activities is cross subsidising another than the costing of that activity is used as the benchmark. Not every jurisdiction and every country prices activities on a fully transparent arm's length basis. **Can TERA present an example where a single one of the jurisdictions was able to achieve the level of efficiency modelled for Chorus across the full range of its non-recurring charges?**
- c) The use of LFC as a crosscheck is extremely hardly to independently verify which makes it impossible to interrogate the range of services and whether they are comparable. Most LFC companies are operating in urban areas and do not have urban footprints.

As with other assumptions in TSLIC the Commission has access to real world data via the rates Chorus pays as a result of competitive tenders with third party suppliers. **If the Commission sets these price at a price below what Chorus is charged for these activates that it simply amounts to a value transfer from Chorus to retail service providers – what is the benefit of this to end users?**