



**TSLRIC price review determination
for the Unbundled Copper Local
Loop and Unbundled Bitstream
Access services**

***Questions regarding Chorus
model***

Commerce Commission

Ref: 2014-20-DB-ML – BU models

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0 Introduction

In December 2014, Chorus published its own bottom-up cost model developed by Analysys Mason consultants. The Commission has asked TERA Consultants to review this model.

1 Access

- Could you describe what is included in the asset “lead in”?
- Could you describe what is included in the asset “aerial route”?
- What is the distance between poles assumed to assess “aerial route” metric cost?
- Why is the aerial “Aerial Asset counts multiplier” not applied to distribution points?
- Could the difference between the number of premises [RI:] and the number of lead-ins [RI:] be explained?
If the lead-in deployment is driven by the actual demand, then the number of premises shall also be consistent with the actual demand.
- What are the drivers of the route optimization multipliers (from [RI: %] for cables, to [RI: %] for infrastructure? None of the used rates – included the 10% additional efficiency adjustment – seem explained).
- Why is the “proportion of distribution network that is aerial” (20%) not used in the modelling? It seems that 21% of distribution routes are aerial. However, no link seems to be made with the 20% aforementioned input parameter.
- Could the calculation of the length of the access cables and trenches be explained?
- How has the number of cabinets been derived? Chorus model includes 8,831 cabinets whereas the number of cabinets included in ComCom model is 10,471. The number of cabinets included in ComCom model is based on the figures provided by Chorus during the data collection phase.
- How has been derived the number of manholes in Chorus model?
- How has been derived the length of the SLUBH in Chorus model?
- How have been set the asset lives of “UG Route in distribution” and “aerial route” in Chorus model? What are the exact assets that are included in these two categories?

2 Core

- The core model is using geotypes. Has the modelled inventory been reconciled with Chorus real inventory?
- Could you detail how cables and trenches are allocated to the different services in the core network model?
- Is the model able to isolate the RBI cabinet related-costs?
- How many cabinets are located in the RBI areas?
- Could you explain why the length of core cables is significantly below the length of trenches allocated to the core network (see figures derived from the spreadsheet “NwDes” in the next table)

Table 1 - Cables and trenches lengths

	Length (km)
Feeder cables	12,783
Feeder trenches	3,470
Core cables	6,647
Core trenches	9,497

Source: TERA Consultants

- Could you explain why the results vary significantly from one year to another when changing the parameter “Model results year” (see results in the following table)?

Table 2 - EUBA 0 costs per year

Year	2014	2015	2016	2017	2018	2019
EUBA 0	16.17	48.72	49.73	52.30	56.30	60.11

Source: TERA Consultants

- Several layers of the core network seem to be modelled. Could you explain why the UBA services, that stops at the First Data Switch, has the same routing factors for inter-exchanges links than other services such as bitstream or HSNS services?
- Could the calculation of the forecasts of the different copper services be explained and detailed? Is there a relationship of migration among the different services?
- Could you explain how the model determines the price profile for the real cost over five years?
- Could the calculation of the length of core cables and the length of core trenches be explained?

3 Opex

- Could the calculation of the OPEX in the Core model be explained?
- Why is maintenance 'non UBA' category included?
- What is the source for costs inputs: the costs per line costs and the total figures are hardcoded?
- Have any efficiency adjustments been made in the opex calculation? Which costs have not been included in Chorus model? Is there any cost that has been considered as not relevant to the costing of the regulated products?
- The link between the inputs used to derive opex in Chorus model and the regulatory accounts of Chorus is not straightforward. How are these inputs related to the regulatory accounts? Could you explain the steps used to derive the inputs of Chorus model from the regulatory accounts?
- From the accounts, how costs have been allocated between UCLL, UBA, other services? (e.g. IT costs, business overheads...). Could the metrics used for the allocation of these costs be provided?
- Why have been included the working capital allowance costs? What is the source of these costs?
- What is the source of price trends?