

Cross-Submission

In response to the Commerce Commission's
"Draft pricing review determination for Chorus'
unbundled bitstream access service"

and

"Draft pricing review determination for Chorus'
unbundled copper local loop service"

including the cost model and its reference documents-
TSO/geospatial modelling related aspects

Non-Confidential version

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Bad Honnef, 31 March 2015

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1 Geospatial data related aspects of modelling

1.1 General: Exclusion of certain capital costs

1. There is a fundamental misunderstanding by Chorus how the mechanism of considering (external) capital contributions in TERA's model works. The network modelled by TERA covers the whole country. There are no unconnected TSO islands or unconnected customers as Chorus assumes.¹ It is only that the capital cost of the street segments outside the TSO polygons are not part of the cost base used to calculate the UCLL cost. TERA's Model Documentation states:²

“The network is modelled for all areas, inside and outside the TSO-derived boundary, as FWA and core infrastructures are incurred by Chorus in any case. However, the access network assets are not taken into account in the areas outside the TSO-derived boundary.”

These capital costs are a (correct or incorrect) proxy for the capital contributions which the HEO receives from third parties. Thus, there are no costs of 10,000 km of route length excluded from the cost model. The assumption of the model is that such costs are contributed by third parties, not more and not less. Nevertheless, the cost to maintain the network for those segments whose capital costs are excluded are part of the relevant cost base for UCLL.

1.2 Trench length

2. Chorus³ and its consultant Analysys Mason⁴ raise concerns on the network connections of the TSO area and in particular on underestimation of trench length in the model. We cannot verify this concern from our model analysis. If Chorus' concern is valid it would follow from an inaccurate geo-coding of end-user premises in the TERA model. The Commission should provide more transparency in the geo-coding part of the model so that Chorus' concerns can be appropriately checked.

1.3 TSO boundaries

3. We also have raised concerns on the appropriateness of the geo-modelling part of the cost model⁵ as Chorus⁶ and Analysys Mason⁷ have done in their submis-

1 See Chorus, February Submission, para. 17, para. 22 and paras. 110 and 111.

2 See TERA, Model Documentation, p. 78.

3 See Chorus, February Submission, paras. 17, 22 and Annex B.

4 See Analysys Mason, February Submission, Section 2.1.

5 See WIK-Consult, February Submission, Section 4.2.1 and 5.5.

6 See Chorus, February Submission, para. 110 and Appendix B.

7 See Analysys Mason, February Submission, Section 2.1.

sions. Our concerns were not more specific because most parts of the geo-modelling part of the model were intransparent to us. This has not changed since then. Therefore at this stage we refrain from commenting on Chorus' and Analysys Mason's critique on the accuracy of the TSO boundaries in the model. There is no doubt that accuracy of these boundaries requires that customers and premises covered as part of the TSO areas in 2001 should be within the polygons used for modelling now. We reserve the opportunity to comment on the accuracy of the TSO boundaries when the geo-modelling part of the model becomes more transparent to us. We hope that the Commission will provide this in its (next) draft decision. In particular we would expect that the Commission makes clear how it effectively developed and compiled its TSO polygons.

4. The TERA model according to our understanding designs and calculates an access network and its cost for all buildings included in the Corelogic dataset of addresses (dwellings), combining addresses at the same location to be located in the same buildings. The buildings then are connected to the local exchanges, thus no buildings in the model are disconnected. To this extent the statement of Analysys Mason about "unconnected "islands"" in its February Submission (Section 2.1) is not correct. The Commission's focus on buildings in the TSO area excludes the cost of street segments labelled as outside TSO. Analysys Mason states that the cost for these street segments is not considered.
5. However, inclusion of the full cost of the excluded street segments connecting the TSO polygon areas to the local exchanges would result in an over-estimation of cost, because they also carry cost of the non-TSO areas.
6. Obviously the SAM-ID database and the Corelogic database mismatch to a certain extent. The SAM-ID database includes 1,819,940 buildings, while the Corelogic database includes 1,815,420 buildings. Astonishingly, according to Analysys Mason, mapping the SAM-ID data to the Corelogic database using a 10 metre 'buffer' around each building results in only 1,256,000 buildings as a common set of buildings.⁸ Thus a significant set of buildings disappear and we conclude that there is an immediate need to check the input data. From our point of view it makes no sense to undertake analysis with incomplete datasets and then claim for 25,776 km missing road length, as Analysys Mason has done.⁹ In any event, their deduction remains unclear.
7. Analysys Mason states, "...that several of the polygons heavily overlap (e.g. those outlined in purple below) which indicates there may be shortcomings in the definition of the polygons."¹⁰ This may be right, but it also holds that this overlapping will not have the consequence of underestimating costs, because the buildings in-

⁸ See Analysys Mason, February Submission, Section 2.13, p. 24.

⁹ See Analysys Mason, February Submission, Section 2.13, p. 25.

¹⁰ Analysys Mason, February Submission, Section 2.13, p. 23.

side these polygons are considered. However this finding raises the concern that buildings, and so the resulting network costs, are counted several times. Due to the lack of transparency in the geodata processing it is not possible for us to analyse whether buildings are considered several times. This must be checked carefully by TERA.

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