



## **TELSTRA CORPORATION LIMITED**

### **PUBLIC INQUIRY TO MAKE FINAL ACCESS DETERMINATIONS FOR THE DECLARED FIXED LINE SERVICES**

**PART A OF TELSTRA'S RESPONSE TO THE COMMISSION'S DISCUSSION PAPER**

#### **SCHEDULE A.7: EXPLANATION OF PSTN OTA CALCULATIONS**

June 2011

# 1. EXPLANATION OF PSTN OTA CALCULATIONS

1. Telstra's explanation should be read in conjunction with the confidential spreadsheet titled 'Schedule 7 – PSTN OTA calculations.'

## 1.1. Cost relativities derived from the Analysys Model

2. Telstra has calculated the pricing matrix based on the cost relativities that are in the Analysys Model. The matrix is shown in the sheet titled '1. OTA Price Matrix'.
3. The headline rate, the average call holding time and the split between flagfall and conveyance are inputs that Telstra has used from the Commission's Discussion Paper (see cells C25 to 28). The headline rate in C25 is the average calculated by the Commission in Table 11.7 in the Discussion Paper.
4. The traffic distribution across bands in row 31 is Telstra's confidential information which was provided to the Commission on 22 November 2010 and is shown in Table 11.2 in the confidential version of the Discussion Paper.
5. The total cost distribution in row 32 was derived from the Analysys Model. These relativities were derived as follows:
  - In the sheet titled '4. Costs allocated to OTA', Telstra pulled out the annual costs that were allocated to PSTN OTA from the Analysys Model. As shown in that sheet, there are over 200 categories of costs that are allocated to PSTN OTA.
  - In the sheet titled '3. Cost components by ESA', Telstra uses the top 13 cost categories (which together represent 90.1% of costs allocated to PSTN OTA) to calculate the cost components by ESA. These 13 cost categories are general costs. Telstra also considers that if the other 9.9% of costs were added in, these would mostly be attributable to CBD areas. This is because these are localised costs and not general costs.
  - The calculation in sheet 3 involved Telstra listing out each ESA from the Analysys Model (>5000 ESAs) and matching that up with its ESA list. Telstra then calculated the cost per ESA for each of the 13 cost categories.
  - In columns F to I, for example, Telstra calculates the distance of duct to trench for each ESA in the Analysys Model. The total is found in row 5259. This is repeated for each cost category.
  - In row 5260, Telstra performs a check on the total which is the total from the Analysys Model. The only column total that differs from the actual total from the Analysys Model is Column O. Telstra considers that this difference arises because the Analysys Model rounds by geographic type, rather than by ESA (ie ½ a piece of equipment is rounded up to 1).
  - In the sheet titled '2. Costs by OTA charging band', the information from sheet 3 and sheet 4 is pulled out in the first table. Column C of the first table pulls out the percentage of annual costs that are allocated to PSTN OTA. In columns D to H of the first table, the information from sheet 3 is pulled out. Telstra notes that the 'NA' column (column H) captures the ESAs in the Analysys Model that no longer feature on Telstra's ESA list.
  - In rows 24–36 in sheet 2, Telstra applies the cost allocation factors from the Analysys Model (column C) to calculate the annual cost across the four bands.

- In rows 43–55, in sheet 2, Telstra calculates the ratio of capital costs to annual costs and then in row 57 calculates the cost relativities from the Analysys Model. The relativities are: 1% in CBD areas; 27% in Metropolitan areas; 10% in Provincial areas and 62% in Remote areas.
6. In row 33, Telstra first calculated the the total cost relativities by dividing the total cost distribution in each of CBD areas, Metropolitan areas and Provincial areas by the Remote areas percentage. The Remote band is the base.
  7. In row 34, Telstra then calculated the average cost relativities by dividing the total cost for each of the CBD, Metropolitan and Provincial Bands by the weighted traffic distribution of that band relative to the Remote Band (which is set at 1). This calculation yields the cost in each geographic area.
  8. In row 35, Telstra then calculated the average cost per minute per band by dividing the headline rate by the sum product of the weighted average cost relativities.
  9. The flagfall and conveyance costs are calculated across the four bands (see rows 14–16). The flagfall cents per EMOU for each band is calculated by multiplying the average cost for each particular band by the flagfall percentage (ie 25%). The conveyance cents per EMOU is calculated by multiplying the average cost for each particular band by the conveyance percentage (ie 75%). The flagfall cents per call is calculated as multiplying the flagfall cents per EMOU by the average call holding time.
  10. Telstra then calculated the headline rate for each band (see row 39) on a cents per EMOU basis. The headline rate for each band in this table corresponds with the headline rates in the Commission’s Table 11.7.

## **1.2. Telstra’s methodology based on PIE II model and the Commission’s Table 11.7**

11. Telstra has recreated the pricing matrix in Table 11.7 in the Commission’s Discussion Paper in the sheet titled ‘1. OTA Price Matrix’. In doing so, Telstra has used a simpler methodology than the one that the Commission adopts.
12. As noted above, the cells highlighted in yellow are inputs that Telstra has used from the Commission’s Discussion Paper (see C4 to C7 and row 10). Telstra’s cost relativity information is shown in row 11.
13. In row 12, Telstra calculated the total cost relativities by dividing the total cost distribution in each of CBD areas, Metropolitan areas and Provincial areas by the Remote areas percentage. The Remote band is the base.
14. In row 13, Telstra calculated the average cost relativities by dividing the total cost for each of the CBD, Metropolitan and Provincial Bands by the weighted traffic distribution of that band relative to the Remote Band (which is set at 1). This calculation yields the cost in each geographic area.
15. In row 14, Telstra then calculated the average cost per minute per band by dividing the headline rate by the sum product of the weighted average cost relativities.
16. The flagfall and conveyance costs are calculated across the four bands (see rows 15–17). The flagfall cents per EMOU is calculated by multiplying the average cost for each particular band by the flagfall percentage (ie 25%). The conveyance cents per EMOU is calculated by multiplying the average cost for each particular band by the conveyance percentage (ie

75%). The flagfall cents per call is calculated as multiplying the flagfall cents per EMOU by the average call holding time.

17. Telstra then calculated the headline rate for each band (see row 18) on a cents per EMOU basis.
18. The headline rate for each band in this table corresponds with the headline rates in the Commission's Table 11.7. For the metropolitan and provincial bands, Telstra calculates the exact same price as the Commission. In the CBD and remote bands, Telstra's calculations are only one to two cents difference to the Commission's calculated prices.