

Critique of OXERA Model

Focusing on Data, Calculations & Assumptions

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Introduction

- Our critique focuses on the data, calculations and assumptions of the OXERA model
 - Within the context of the OXERA framework
- The OXERA model is complex and draws on a very large database:
 - And with large and complex models, reviewers can be expected to raise a wide range of issues
- The central concern is whether such issues have a sound basis and have a substantial impact on the results

Introduction (cont'd)

- To keep this presentation focused we:
 - List the errors, omissions and questionable assumptions we identified in the OXERA model
 - Describe briefly the 7 issues for which we have developed alternative values
 - Illustrate the combined impacts of the 7 issues
 - Conclude with implications for the OXERA model
- We are happy to take questions on wider issues in our report:
 - As the model is poorly documented, we provided examples of a number of model re-runs to assist the Commission and OXERA to check our work

List of issues

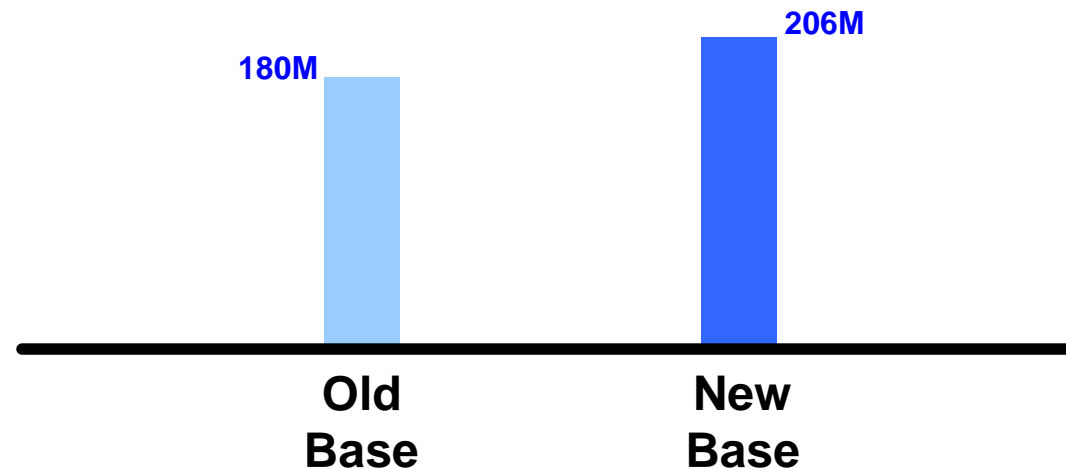
- The 7 issues for which we have developed alternative values are:
 1. Voice prices set too high
 2. GST counted as benefit
 3. Mis-allocation of fixed costs
 4. Payback periods too long
 5. Onset costs understated
 6. Market share penetration rates too high
 7. Colocation costs understated

List of issues (cont'd)

- Other issues are:
 - Entrant onset costs are omitted
 - Estimates of the Commission's costs are implausibly low under designation, and zero under specification
 - Cost/price estimates for unbundled elements are not de-averaged by geography in the designation price calculation
 - Possible deferral of unbundling start-date in 2005 is not considered
 - ESA boundaries do not align with Commission's previous approach to competition analysis based around entrant networks
 - Questionable assumptions were included in the OXERA amendments without robust justification, calling into question their original basis:
 - Telecom profit reduction under specification lowered from 15% to 10%
 - \$35 ISP charges in the counterfactual and \$20 in the factual
 - Marketing & customer service costs reduced from \$100 to \$50
 - Core network costs reduced from \$83 to \$70 for data-only lines

Issue 1 - Voice prices set too high

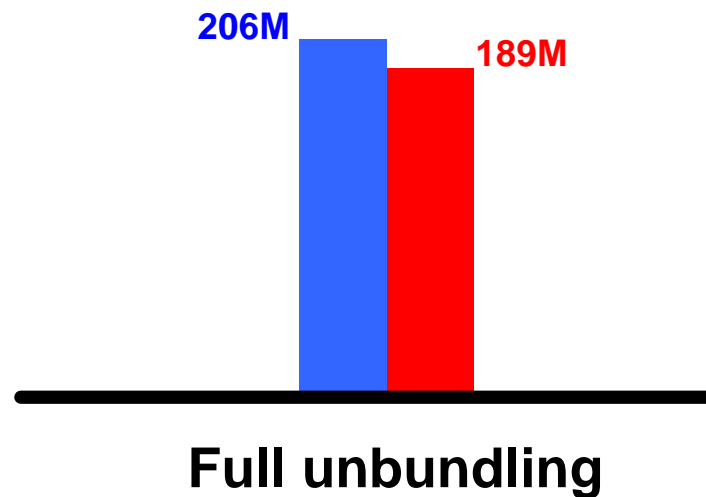
- This is a spread-sheeting error
- It applies to full unbundling only (option 1)
 - The error results in voice prices in the factual (P2 & P1) not declining over the 5 year study period as they should
- Correction leads to a rise in the benefit estimate
- We use this corrected version, which includes competitive ESAs, as the new base model for all other model re-runs



Issue 2 - GST counted as benefit

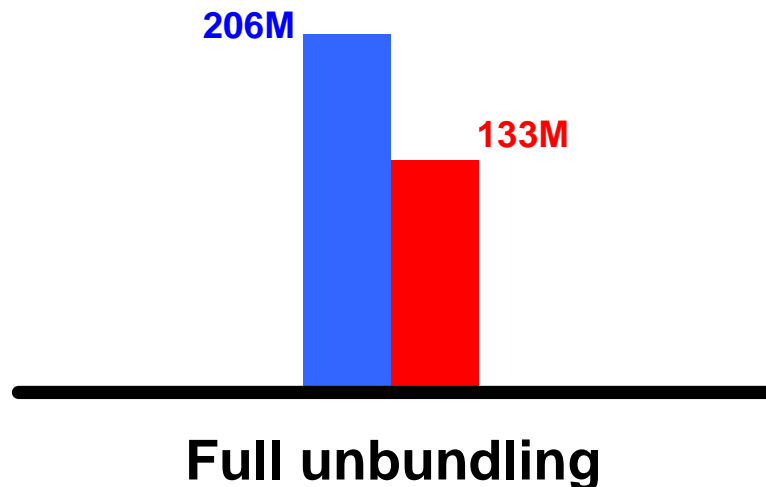
- Residential voice and data prices in counterfactual include GST, but the price estimates for the factual (under designation) do not
- We address by removing GST (1/9) from counterfactual prices

(Blue is OXERA benefit estimates, red is revised estimate)



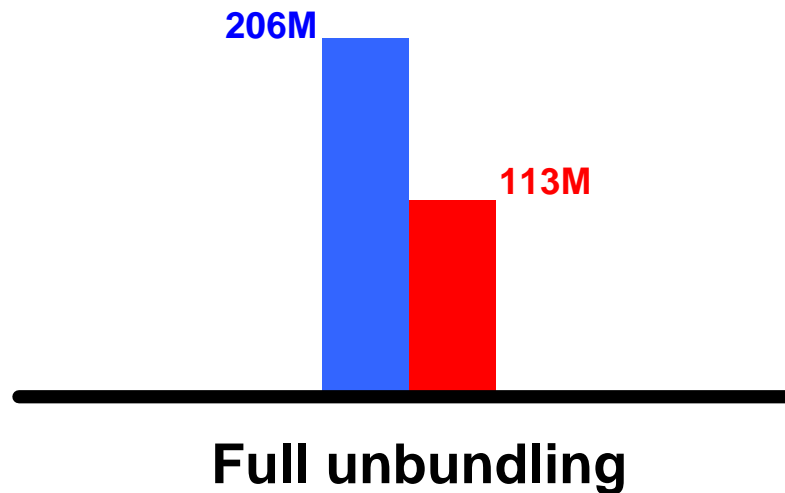
Issue 3- Mis-allocation of fixed costs

- In setting factual prices under designation the model allocates fixed costs to each year by:
 - Dividing fixed costs by the expected life of the asset
 - This does not take into account the time value of money
- We address this by using an annuity to allocate these fixed costs, consistent with the approach used by the Commission to calculate net TSO costs



Issue 4 – Payback periods too long

- OXERA uses asset lives (or payback periods) of 20 yrs for backhaul and switch & infrastructure connectivity, 15 yrs for collocation costs, and 10 yrs for DSLAMs
- We run a sensitivity test using payback periods of 5 years for switch & infrastructure connectivity and DSLAM costs

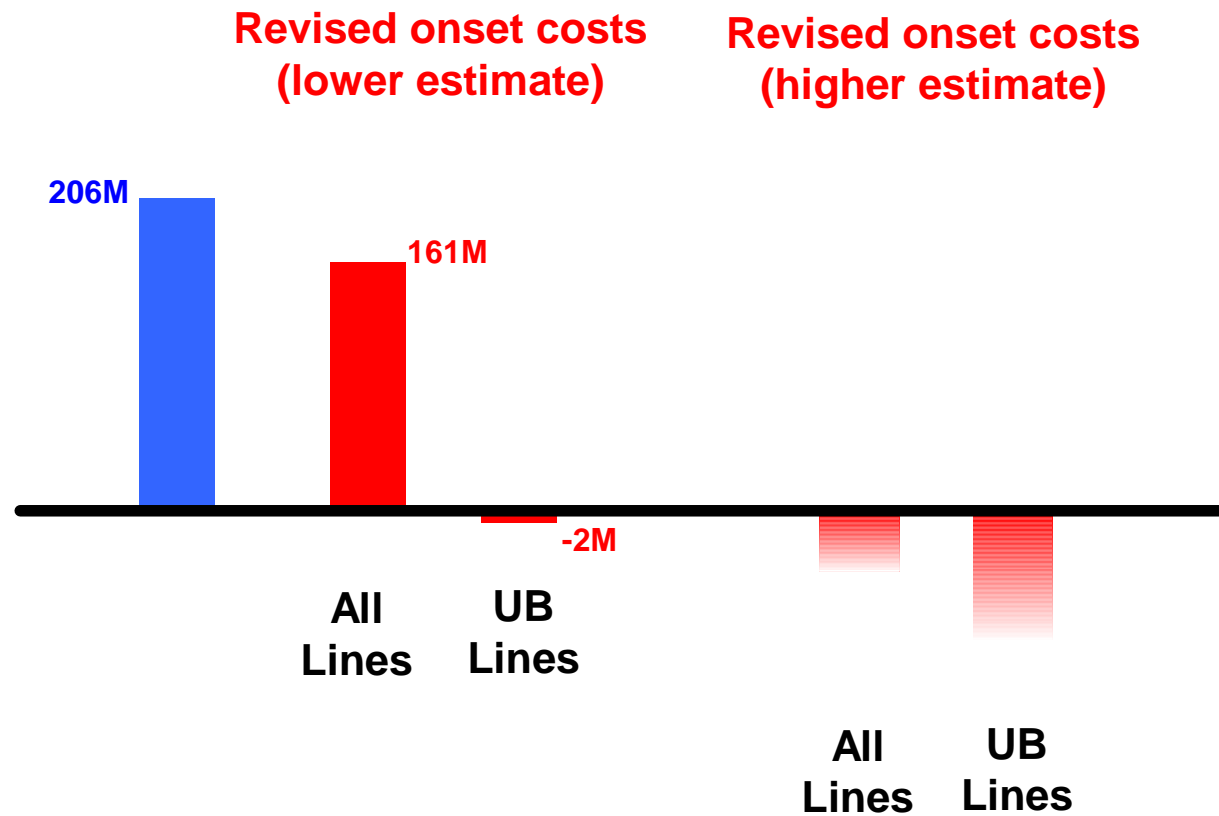


Issue 5 - Onset costs understated

- OXERA uses the lower bound of earlier Telecom estimates:
 - And allocates them such that $> 90\%$ fall on Telecom or its customers
- We run a sensitivity test using Telecom's revised onset cost estimates:
 - Any fixed costs not recovered through the price are deducted from the benefit estimate, resulting in negative benefits in some cases
- We apply these costs, using the annuity approach described above:
 1. To all xDSL lines (as per OXERA approach)
 2. To unbundled lines only (which assumes all onset costs are recovered from entrants)

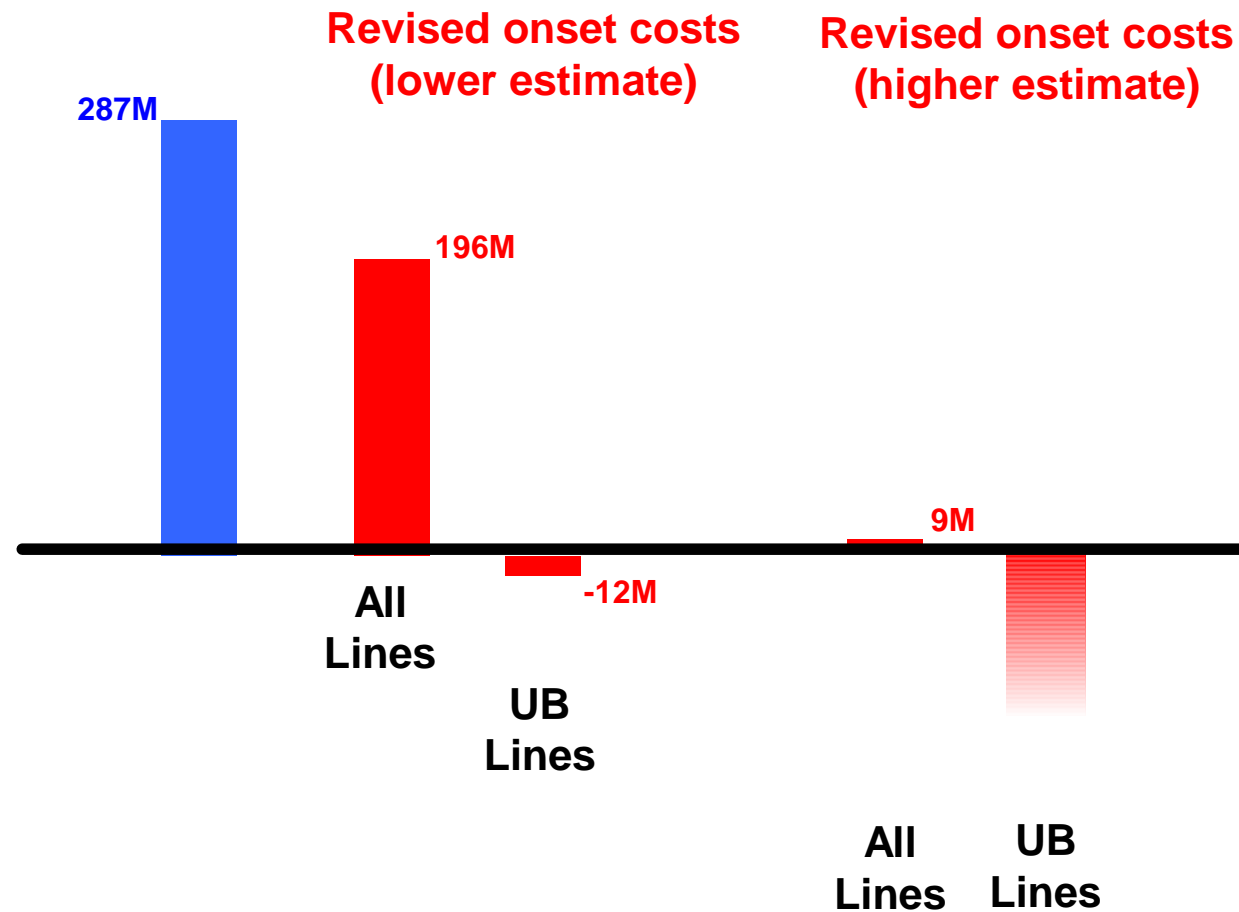
Issue 5 - Onset costs understated

- Results for full unbundling



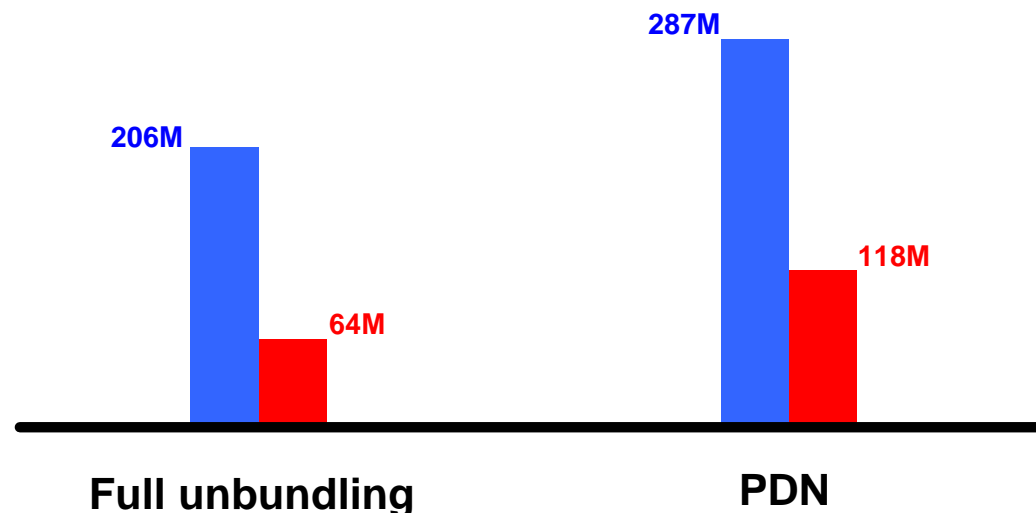
Issue 5 - Onset costs understated

- Results for PDN unbundling



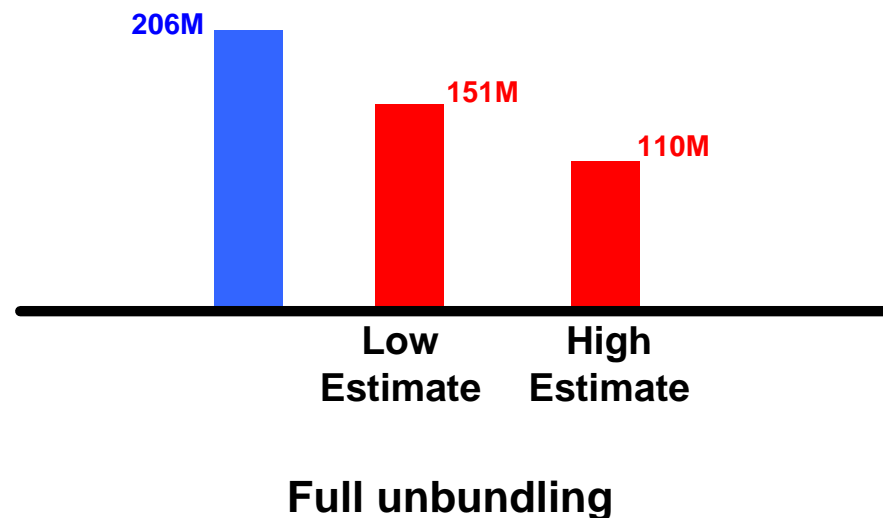
Issue 6 - Market share penetration rates too high

- OXERA assumes the entrant gains 5% market share p.a. from the incumbent, plus 25% of market growth
 - Results in 28% to 47% market share over the 5 yrs
 - But TelstraClear states international experience indicates entrant market shares of between 5% - 20%
 - $\frac{1}{4}$ of take-up rates results in no entry
 - $\frac{1}{2}$ of take-up rates results below (results in 16% - 26%)

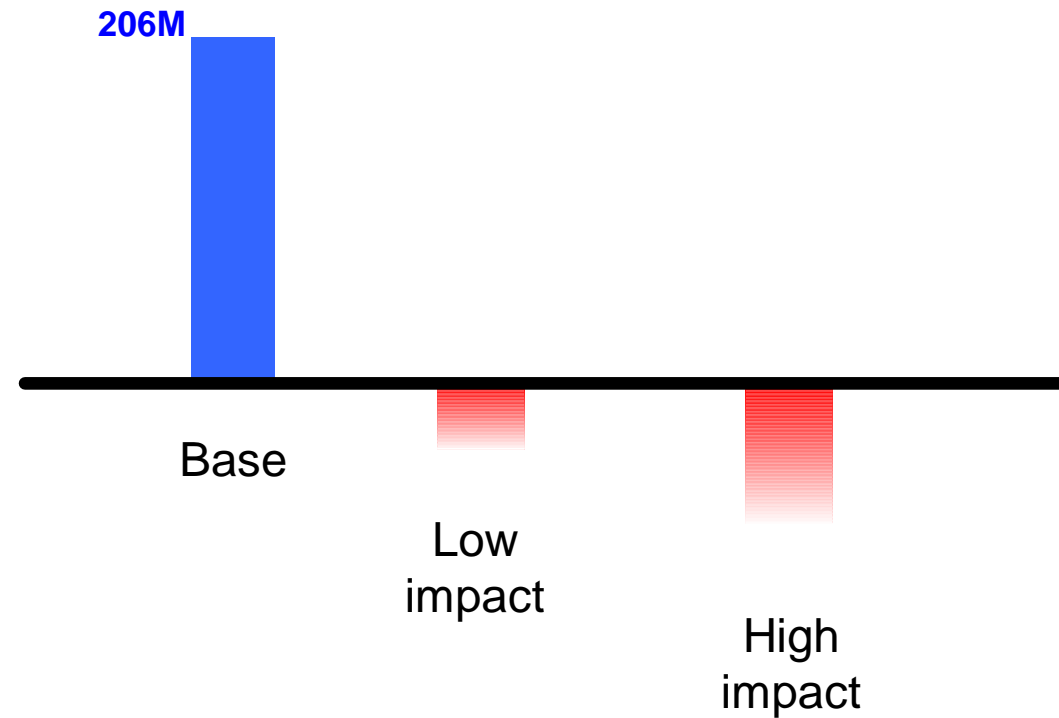


Issue 7 - Colocation costs understated

- OXERA include costs to establish collocation space but not rental costs for the space itself
- We use estimates from Telecom for this rental cost:
 - Low estimate is based on the replacement cost of exchange buildings
 - High estimate is based on market prices for the space

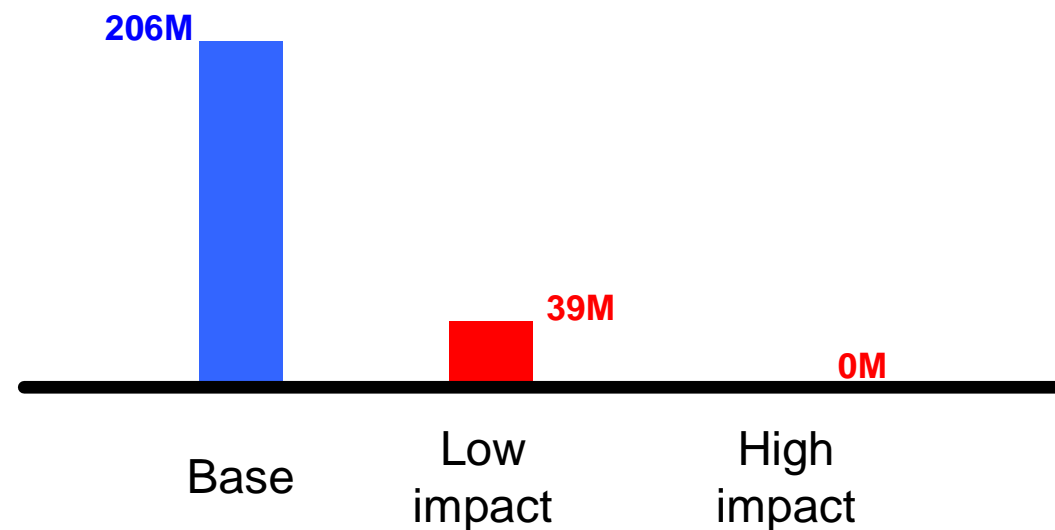


Combined impact of 7 issues for full unbundling (option 1)

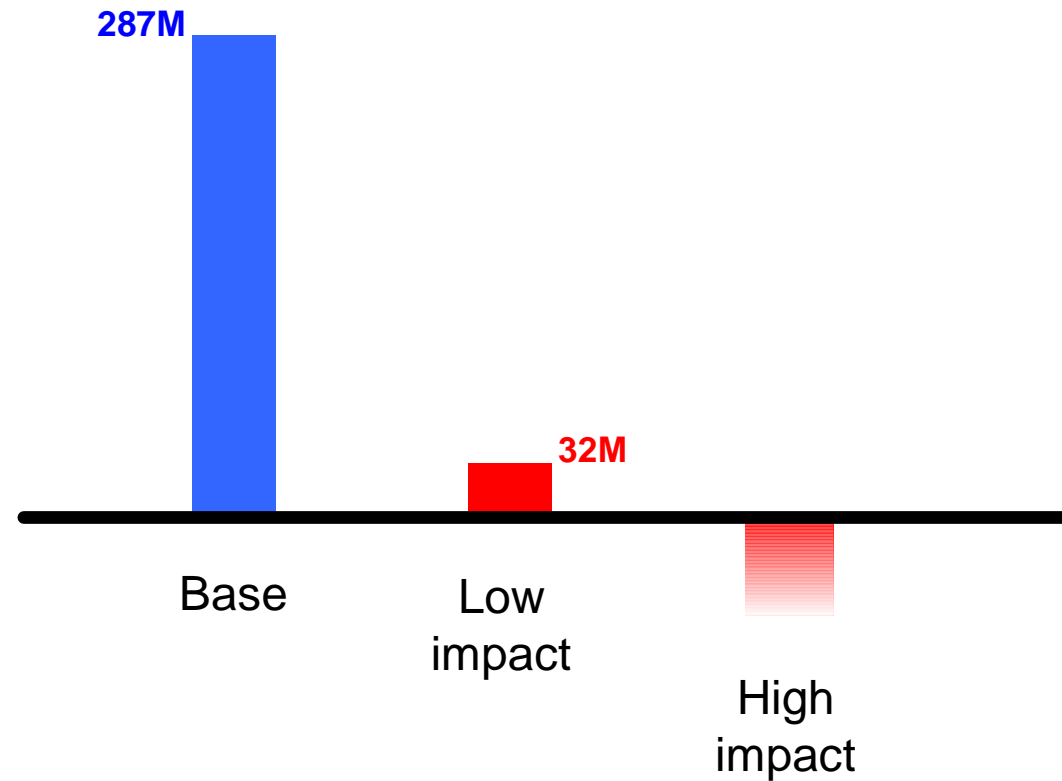


Combined impact of 4 issues for full unbundling (option 1)

- Correcting 3 errors (voice prices, GST & allocation of fixed costs)
- Plus aligning penetration rates to international experience



Summary of combined impacts for PDN (option 4)



Conclusions

- We have critiqued the OXERA model within the context of the OXERA framework
- The errors, omissions and questionable assumptions have a substantial impact on the model results
 - Correcting for 4 issues results in low or zero benefits for full unbundling
 - Including all 7 issues results in negative benefits
 - Addressing issues relevant to PDN unbundling results in low or negative benefits
- Other issues we have identified would further reduce benefits
- The revised OXERA model results indicate neither full unbundling nor PDN unbundling would provide net benefits
 - And the same applies to line sharing and bitstream unbundling