Before the

AUSTRALIAN COMPETITION AND CONSUMER COMMISSION

In the Matter of

Assessment of Telstra's Unconditioned Local Loop Service Monthly Charge Undertakings

EXPERT REPORT OF DAVID E. M. SAPPINGTON ON THE APPROPRIATE INCIDENCE OF ULLS-SPECIFIC COSTS

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QUALIFICATIONS

1. My name is David Sappington. I am the Lanzillotti-McKethan Eminent Scholar in the Warrington College of Business at the University of Florida. I am also the Director of the University's Public Policy Research Center.

2. I earned my Ph.D. in Economics from Princeton University in 1980. Since that time, I have served as a full-time faculty member at the University of Michigan, the University of Pennsylvania, and the University of Florida. I have also served as a visiting lecturer with the title of full professor at Princeton University.

3. Between 1984 and 1989, I was a member of the professional staff of Bell Communications Research (Bellcore). I was promoted to the rank of District Manager at Bellcore in 1989, before leaving to join the faculty of the University of Florida.

4. In 2001 and 2002, I served as the Chief Economist of the U.S. Federal Communications Commission. As Chief Economist, I assumed primary responsibility for all economic matters that came before the Commission.

5. My research focuses on the design of regulatory policy in the telecommunications industry. This research has culminated in more than one hundred articles and a book entitled *Designing Incentive Regulation for the Telecommunications Industry*. My work has been published in leading economics and law journals, including the *American Economic Review*, the *Journal of Political Economy*, the *Rand Journal of Economics*, the *Journal of Regulatory Economics*, and the *University of Chicago Law Review*.

6. I presently serve on the editorial boards of five leading economics journals, including the *Rand Journal of Economics*, the *Journal of Regulatory Economics*, and the *Journal of Economics and Management Strategy*. I have also served on the editorial boards of other major journals, including the *American Economic Review* and the *Journal of Industrial Economics*. I am also the Vice President and President-Elect of the International Industrial Organization Society.

7. In addition to my academic research, I have provided expert advice to many corporations, including BellSouth, GTE, SBC, TELUS, and UPS. I have also advised several regulatory bodies, including the New York State Public Service Commission and CONATEL and OSIPTEL, the national telecommunications regulatory agencies in Ecuador and Peru, respectively. In addition, I have served as an advisor on competition policy in the communications industry for the Antitrust Division of the U. S. Department of Justice.

8. In advising corporations and regulatory agencies, I routinely analyze complex issues related to the design of regulation policy in the presence of industry competition. I also analyze such issues

in my research and in my service on editorial boards, just as I did on a daily basis during my tenure as chief economist at the U.S. Federal Communications Commission.

9. My curriculum vita is attached as Appendix A.

INTRODUCTION AND OVERVIEW

10. I have been asked by Telstra Corporation Ltd. ("**Telstra**") to provide my expert opinion on the merits of recovering from Telstra's shareholders and/or its customers the costs that Telstra incurs to supply the unconditioned local loop service ("**ULLS**"). This is an inappropriate policy in my opinion. The policy is contrary to basic economic principles, to Telstra's legitimate business interests, and to the long-term interests of end-users of telecommunications services in Australia. I recommend instead that ULLS-specific costs continue to be recovered from ULLS users, as they have been historically.[1]

11. I present and support my recommendation as follows. First, I review the standard economic principles that explain why all service-specific costs generally should be paid by the users of the service. Second, I explain why the recovery of all ULLS-specific costs from ULLS users is consistent with the mandates of the Australian Competition and Consumer Commission ("**ACCC**"). Third, I review the ACCC's argument for spreading ULLS-specific costs more broadly, and note that the argument relies heavily on untested propositions. I also note that the primary alleged benefit of the broader distribution of ULLS-specific costs – the equalization of industry operating costs – may impede rather than promote meaningful long-term competition by limiting incentives for innovation and cost reduction. Fourth, I discuss additional drawbacks to the allocation of ULLS-specific costs envisioned by the ACCC. These drawbacks include the facts that the allocation: (i) is not competitively neutral; (ii) can require those who are harmed by expanded ULLS use to pay for the expanded use;[2] and (iii) imposes no costs on individuals who, according to the ACCC's own argument, will benefit from expanded ULLS usage.[3]

12. Fifth, I point out that recovering ULLS-specific costs from non-users of ULLS amounts to entry assistance, and thus introduces the many well-known problems with entry assistance, including the potential for long-term subsidization of inefficient industry participants. Finally, I

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1 ULLS-specific costs are costs that Telstra would not incur if it did not produce ULLS.

2 As explained below, rural consumers may be both harmed by and required to pay for expanded ULLS use.

3 As explained below, the ACCC's argument suggests that consumers of wireless and cable telephony services could benefit from the expanded ULLS use. However, the allocation of ULLS-specific costs envisioned by the ACCC does not appear to impose any costs of expanded ULLS use on these consumers.

observe that price cap regulation and competition may limit Telstra's ability to recover ULLS-specific costs from its customers. Consequently, Telstra's shareholders may be required to finance the activities of competitors. Such a policy is clearly contrary to Telstra's legitimate business interests.

I. RECOVERING ALL ULLS-SPECIFIC COSTS FROM ULLS USERS IS CONSISTENT WITH BASIC ECONOMIC PRINCIPLES AND WITH THE ACCC'S MANDATES

A. RECOVERING ALL ULLS-SPECIFIC COSTS FROM ULLS USERS IS CONSISTENT WITH BASIC ECONOMIC PRINCIPLES

13. A service-specific cost is a cost that would not be incurred if the service in question were not produced (holding constant the supply of other services).[4] Basic economic principles dictate that service-specific costs be recovered from those who use the service. Otherwise, the service will be cross-subsidized. A service is cross-subsidized when the sum of all service-specific costs incurred to produce the service exceeds the revenue paid by those who consume the service.[5]

14. Cross-subsidization of a service is problematic in part because it encourages excessive use of the service. Excessive use of a service (e.g., ULLS) arises when the benefits produced by the marginal units of the service are outweighed by the costs of producing those units. Under such circumstances, reduced production of the service would reduce production costs more than it would reduce the benefits enjoyed by those that purchase the service. The cost savings could then be employed to produce different goods and services that society values more highly. This reallocation of resources would increase the overall value of goods and services produced in the economy.

15. Cross-subsidization also can increase industry costs by precluding the profitable operation of the most efficient industry producers. When a service like ULLS is cross-subsidized, it is priced below its unit cost of production. Such below-cost pricing artificially reduces the costs of firms that employ ULLS, and can even reduce the costs of these firms below the costs incurred by more efficient producers that do not employ the subsidized ULLS service. Consequently, less efficient

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4 It is my understanding that the ULLS costs at issue in the present proceeding are ULLS-specific costs in precisely this sense.

5 See, for example, Gerald Faulhaber, "Cross-Subsidization: Pricing in Public Enterprises", *American Economic Review*, 65(5), December 1975, pp. 966-977. As the Australian Competition Tribunal ("**the Tribunal**") has noted with regard to the line sharing service ("**LSS**"), "Telstra is correct in saying that recovery of LSS-specific costs over a broader category of services than the LSS lines alone will involve some level of cross-subsidy from other services to the LSS" (No 1 of 2006, *RE: Final Decision by the Australian Competition and Consumer Commission Dated December 2005 Pursuant to Section 152BU in Respect of an Ordinary Access Undertaking Submitted by Telstra Corporation Limited for the Line Sharing Service,* 2 June 2006 ["**ACT, *Final Decision***"], ¶ 143).

firms that employ the subsidized ULLS service can drive more efficient producers from the market, and thereby increase industry production costs and waste valuable resources.[6]

16. Below-cost pricing of ULLS also can raise industry costs by distorting build-or-buy decisions of industry suppliers. Even though production costs may be lower under full facilities-based operation than under ULLS-based operation, a competitor may find it more profitable to employ ULLS when the service is priced below cost. When below-cost prices induce competitors to buy inputs rather than employ their own facilities exclusively, industry costs rise and valuable resources are wasted.

17. Cross-subsidization of ULLS also can discourage innovation and cost reduction. The supplier of a substitute for ULLS will only anticipate a financial payoff from reducing its operating costs if it can reduce its unit production cost below the price at which ULLS is sold. Any smaller reduction in costs will not allow the supplier to compete profitably against the subsidized ULLS. Consequently, the cross-subsidization of ULLS can eliminate incentives for suppliers of substitute services to achieve moderate cost reductions, even when such cost reductions would reduce industry production costs in the absence of cross-subsidization.[7]

18. In summary, cross-subsidization of ULLS can encourage over-consumption of ULLS, preclude operation by the most efficient industry producers, distort build-or-buy decisions, and limit incentives for innovation and cost reduction. To avoid these distortions, basic economic principles dictate that all service-specific costs be recovered from users of the service in question.

B. Recovering All ULLS-Specific Costs from ULLS Users is Consistent With the ACCC's Statutory Mandates

19. Recovering ULLS-specific costs wholly from those who use ULLS also is consistent with the ACCC's mandates. For the reasons explained above, recovering ULLS-specific costs wholly from those who use ULLS encourages "the economically efficient operation of, and the economically

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[6] For example, suppose the unit cost of supplying ULLS is 10 but the (subsidized) unit price of ULLS is 8. Further suppose a firm that employs ULLS ("firm A") incurs no additional costs in producing a final product. In addition, suppose a firm that does not employ ULLS ("firm B") can produce the same final product at unit cost 9. Firm B is the more efficient producer of the final product because its unit cost of production is 9 while firm A's (non-subsidized) unit cost is 10. However, firm B will be unable to survive in the market because access to the subsidized ULLS service enables firm A to serve all customers profitably at a price below firm B's efficient unit cost (9).

[7] To illustrate this point, suppose the unit cost of supplying ULLS is 10 while the price of ULLS is 8. Also suppose a firm can presently supply a substitute service at unit cost 9 and, at negligible expense, could reduce this unit cost to 8.5. This cost reduction would reduce the operating cost of the least-cost industry supplier and thereby reduce industry production costs if ULLS were not subsidized. However, the cost reduction is not profitable for the supplier of the substitute service when ULLS is cross-subsidized because even after the cost reduction, the supplier's unit cost still exceeds the subsidized price of ULLS.

efficient investment in" telecommunications infrastructure in Australia.[8] Because such recovery does not require Telstra to fund the activities of its competitors, the recovery also is consistent with "the legitimate business interests of Telstra."[9] In addition, "the interests of all persons who have rights to use" ULLS and "the direct costs of providing access" to ULLS are afforded due consideration when ULLS costs reflect the efficient costs of supplying ULLS.[10] Furthermore, by avoiding long-term entry assistance and by avoiding a highly asymmetric incidence of benefits and costs of ULLS operation (as explained further below), recovering all ULLS-specific costs from ULLS users promotes "the long-term interests of end-users."[11]

II. THE ACCC'S ARGUMENT FOR IMPOSING ULLS-SPECIFIC COSTS ON NON-USERS OF ULLS FOCUSES ON SHORT-TERM CONSIDERATIONS AND LACKS IMPORTANT DETAIL

20. The ACCC believes it is appropriate to recover ULLS-specific costs from ULLS users and non-users alike. The ACCC argues that the benefits of ULLS extend to those who do not use ULLS. In particular, the ACCC suggests that the use of ULLS will promote more intense competition throughout the telecommunications industry, which may ultimately produce lower prices for all consumers of telecommunications services, not merely for those who purchase services supplied via ULLS.[12]

21. The ACCC envisions an additional charge on (many, if not most or all) Telstra lines to recover ULLS-specific costs. This additional charge can be viewed as a tax on non-users of ULLS, in part because the stated purpose of the charge shares the purpose of many taxes: to raise revenue from one group of individuals to support activities that are thought to benefit those individuals and/or other individuals.[13] Taxes are commonplace throughout the world and can have merit under some circumstances. Similarly, the ACCC's argument for taxing non-users of ULLS to pay for the

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8 Section 152AB of the *Trade Practices Act* 1974 ("**the Act**").

9 Section 152AH of the Act.

10 *ibid*.

11 *ibid*.

12 The ACCC states that "In the ACCC's view, the benefit of the ULLS is it provides the conditions under which a reduction in prices can occur, and the beneficiaries are *all* consumers whose prices are reduced because of the process" (ACCC, *Assessment of Telstra's ULLS and LSS Monthly Charge Undertakings*. *Final Decision*. December 2005 ["**ACCC, *Final Decision***"], § 6.2.2). Similarly, the ACCC states that "these benefits do not accrue to access seekers, but benefit all end users of telecommunications services" (ACCC, *Assessment of Telstra's ULLS Monthly Charge Undertakings*, Confidential Draft Decision, June 2006 ["**ACCC, *Draft Decision***"], Appendix E.3.1, p. 82).

13 The ACCC suggests that the policy it envisions should not be viewed as a tax on Telstra's customers because the policy is not "mandating that Telstra's customers pay some sort of surcharge on their lines" (ACCC, *Final Decision*, § F.3.2, p. 121). However, the policy can reasonably be viewed as imposing a tax on Telstra and allowing Telstra to determine (within the constraints imposed by price cap regulation) how to recover the tax from customers and shareholders.

costs of supplying ULLS is not entirely without merit. If the lower ULLS prices supported by the tax enhanced the competitive process and thereby secured long-term reductions in the prices of key telecommunications services for all consumers, the tax could produce lasting, widespread benefit and so serve the long-term interests of end-users of telecommunications services in Australia.

22. However, securing more symmetric short-term costs for industry suppliers does not necessarily enhance the competitive process and secure long-term gains for consumers. If competitors expect that regulatory policies will consistently be designed to eliminate any cost asymmetries they face, the competitors will have little incentive to eliminate the asymmetries on their own, even when they can do so at little cost. Consequently, although policies that equalize short-term costs may secure lower prices in the short run, such policies can impede the competitive process by reducing incentives for innovation and cost reduction, and thereby fail to reduce prices and benefit consumers in the long run.

23. Furthermore, although the ACCC may have carefully measured the ULLS-specific costs in question and thus the magnitude of some of the costs it seeks to impose on non-users of ULLS, I am not aware of any corresponding detailed assessment the ACCC has made of the benefits that are likely to arise from the tax. Without such an assessment, one cannot be confident that the benefits of the tax outweigh its costs. Consequently, one cannot be confident that the tax promotes the long-term interests of end-users of telecommunications services in Australia.

24. To accurately assess the magnitude of any benefits that might arise from a tax on non-users of ULLS, one must determine: (i) the magnitude of the reduction in the ULLS price the non-user tax will produce; (ii) the increase in ULLS usage that will result from this reduction in the ULLS price; (iii) the extent to which this increased ULLS usage will enhance industry competition and thereby lower prices for telecommunications services; and (iv) the value and incidence of the benefits derived from these price reductions.

25. None of these four elements is trivial to measure. The third element can be particularly difficult to assess accurately, in part because Telstra presently operates under price cap regulation. Price cap regulation often is designed to replicate the discipline of competitive markets.[14] Therefore, any accurate assessment of the extent to which increased ULLS usage enhances industry

[14] The same is true of many regulatory policies. As Alfred Kahn states, "the single most widely accepted rule for governance of the regulated industries is regulate them in such a way as to produce the same results as would be produced by effective competition, if it were feasible." (Alfred Kahn, *The Economics of Regulation: Principles and Institutions*, *Volume I*. New York: John Wiley & Sons, 1970, p. 17.)

competition and lowers prices must measure the incremental effect of any enhanced competition after accounting for the efficiencies induced by the prevailing price cap regulation regime.[15]

III. THE POLICY THE ACCC ENVISIONS HAS SUBSTANTIAL DRAWBACKS

A. THE POLICY THE ACCC ENVISIONS MAY TAX THOSE IT HARMS

26. Even if a detailed cost-benefit analysis were to suggest that the aggregate benefits of the ACCC's non-user tax might outweigh its costs, the incidence of the estimated benefits and costs would warrant further consideration. Even if the non-user tax increased ULLS usage, the increased usage enhanced competitive pressure, and the enhanced pressure reduced industry prices on average, some non-users of ULLS (e.g., individuals who live in the rural regions of Australia) might be harmed by the increased competitive pressure.

27. Telstra is required to charge the same price for the unbundled basic access service throughout Australia.[16] In contrast, unit network operating costs generally are lower in urban regions than in rural regions. Therefore, the difference between Telstra's retail price and the relevant production cost is larger in urban regions of Australia than in rural regions. (Indeed, the retail price exceeds cost in urban areas but is below cost in rural areas.) This larger price-cost margin in urban regions renders competitive entry more profitable in urban regions than in rural regions. Therefore, increased ULLS usage may serve to reduce prices in urban regions of Australia but fail to do the same in rural regions of the country.

28. Furthermore, as Telstra loses urban customers to competitors, it loses its ability to finance low prices in rural regions of Australia. Consequently, unless new policies are implemented to reduce the asymmetric profitability of serving urban regions, increased ULLS usage may eventually lead to one of two outcomes: (1) the price cap imposed on Telstra will be raised to match Telstra's higher (efficient) unit costs of serving its smaller, more rural customer base; or (2) Telstra will suffer financial distress as prices for key services are held below the level of efficient production costs. Under the first outcome, the policy the ACCC envisions would both tax Telstra's customers in the rural regions of Australia and raise the prices they pay for retail basic access

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[15] The ACCC states that if price cap regulation were already holding Telstra's prices to competitive levels, the incremental "benefit of the ULLS" would be that it would allow "the removal of the price cap regime" (ACCC, *Final Decision*, §6.2.2, n. 45). However, the ACCC does not quantify the benefit of such removal.

[16] "Telstra must offer basic line rental services to residential and charity customers, in non-metropolitan areas, at the same or a lower price and on the same price-related terms as it offers to residential and charity customers in metropolitan areas." *Telstra Carrier Charges – Price Control Arrangements, Notification and Disallowance Determination No. 1 of 2005 (Amendment No. 1 of 2006),* § 19A(1).

services. Such an outcome clearly is contrary to the long-term interests of these customers.[17] The second outcome is clearly contrary to Telstra's legitimate business interests. It is also contrary to the long-term interests of end-users because consumers suffer when excessively stringent regulatory policies limit the ability of efficient industry operators to attract the capital they require to continue to serve customers.

B. The Envisioned Policy May Fail to Tax Many Who Benefit From Expanded ULLS Use

29. While the non-user tax the ACCC envisions may harm some consumers both by taxing them and by raising the prices they pay for basic telecommunications services, other consumers may escape the tax entirely even though they benefit from lower prices for telecommunications services. The ACCC suggests that expanded ULLS use will increase competitive pressure and thereby reduce prices of telecommunications services. Presumably, the competitive pressure would affect industry producers other than Telstra and competing carriers that employ ULLS. The pressure might help to reduce the prices charged by full facilities-based providers of wireline telecommunications services and by other providers of wireless telecommunications service, VoIP, and cable telephony, for example.[18] As I understand the non-user tax the ACCC envisions, though, consumers of these services would be exempt from the tax.

30. The ACCC observes that "economic efficiency requires that all consumers (beneficiaries) [who benefit from the declaration of the ULLS] bear the cost."[19] As noted in section IA above, if consumers are charged less for a service than the cost of producing the service, they will tend to over-consume the service. In the present setting, charging ULLS users less than the cost of supplying ULLS can induce competitive suppliers of telecommunications services to employ ULLS rather than less costly means of production. Such a policy, therefore, fails to encourage "the economically efficient use of, and the economically efficient investment in" telecommunications infrastructure in Australia.[20]

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[17] The ACCC's statement that "the consumer using a ULL does not benefit to any greater or lesser extent than do all market participants" is puzzling in this regard (ACCC, *Final Decision*, § A.2.10, p. 56; ACCC, *Draft Decision*, Appendix E.2.6, p. 81). Consumers often purchase telephone service from a ULLS user because of the relatively low prices they can secure by doing so. The direct benefits from low prices contrast sharply with the harms rural customers may suffer due to higher prices that can result from expanded ULLS usage.

[18] The ACCC states that the beneficiaries of the declaration of the ULLS service will either be "the users of *all* telephone services" or "all broadband users", and suggests that benefits will extend to "all telephony customers, whether they are connected to Telstra's or another's network" (ACCC, *Final Decision*, § A.2.8, pp. 54-55).

[19] ACCC, *Final Decision*, § 6.2.2, p. 25.

[20] Section 152AB of the Act.

C. THE INCIDENCE OF TAXES AND BENEFITS IS HIGHLY ASYMMETRIC

31. Even for those who will pay a portion of ULLS-specific costs under the allocation envisioned by the ACCC, payments are not closely aligned with demonstrable benefits. ULLS users clearly benefit from ULLS, given their decision to employ the service.[21] In contrast, the alleged benefits of expanded ULLS usage to non-users are far more speculative. Therefore, the policy the ACCC envisions imposes equal per-customer responsibility for ULLS-specific costs on two very distinct groups of customers. One group (ULLS users) benefits immediately and directly from the service. The other group (Telstra's wireline customers) might conceivably benefit indirectly from the service by some undetermined amount at some indefinite point in the future.[22] An allocation of ULLS-specific costs that more closely reflects the demonstrable benefits relevant parties derive from ULLS would seem to be more consistent with "the long-term interests of end-users."[23]

D. THE INCREASED CHARGE ON TELSTRA LINES IS NOT COMPETITIVELY NEUTRAL

32. The policy envisioned by the ACCC also is not competitively neutral. The policy imposes a non-user tax on Telstra but fails to impose a corresponding tax on other suppliers of telecommunications services, including suppliers of cable telephony and wireless telecommunications services.[24] An asymmetric charge imposed on some suppliers but not on other suppliers provides an artificial advantage to the un-taxed suppliers that is unrelated to their inherent efficiency or demonstrated performance in the marketplace. Policies of this sort can support the operation of inefficient providers of telecommunications services and limit the ability of efficient suppliers to recover their operating costs (and thereby reduce the flow of capital to efficient

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[21] The ACCC's assertion that ULLS "does not directly provide value to the access seeker because, in a competitive environment, they will not profit from the service" (ACCC, *Final Decision*, § A.2.8, p. 54) is puzzling. If the telecommunications industry in Australia presently is competitive, then the alleged role of the ULLS in increasing competition is far from apparent. Furthermore, Optus' 70.8% "gross margin from DSL and voice services supplied over ULLS" that the ACCC mentions (ACCC, *Final Decision*, § F.3.2, p. 119) leads one to question whether ULLS users truly make no profit.

[22] Furthermore, to the extent that the number of relevant Telstra non-ULLS lines exceeds the number of ULLS lines in question, an equal per-line apportionment of the ULLS-specific costs implies that the majority of the costs will be paid by Telstra's wireline customers.

[23] Section 152AH of the Act.

[24] The Tribunal observes that such an asymmetric tax can place Telstra at a competitive disadvantage (ACT, *Final Decision*, ¶ 151). The Tribunal believes the magnitude of this disadvantage to be relatively small in the case of the line sharing service, given the number of customers served by the relevant industry participants. Even if the disadvantage is presently small in the case of ULLS, the disadvantage could increase as market shares change, particularly if the asymmetric tax itself serves to reduce Telstra's customer base. As discussed in section IV below, one important drawback to entry assistance policies like the one envisioned by the ACCC is that they can persist long after they have served any useful purpose. In particular, they can remain in force even when the prevailing industry conditions render them entirely inappropriate.

operators). Consequently, such policies are contrary to "the legitimate business interests" of the suppliers that bear the asymmetric tax.[25] Such policies also can raise industry costs and fail to promote a competitive environment in which the most efficient supplier of telecommunications services prevails in the market place.[26] Consequently, such policies fail to encourage "the economically efficient use of, and the economically efficient investment in" the telecommunications infrastructure in Australia.[27]

IV. RECOVERING ULLS-SPECIFIC COSTS FROM NON-USERS OF ULLS CONSTITUTES ENTRY ASSISTANCE

33. The non-user tax policy the ACCC envisions to recover ULLS-specific costs is a form of entry assistance. Entry assistance is provided when competitive providers of telecommunications are charged less than the cost of services that facilitate their operation in the industry. Entry assistance entails at least seven important drawbacks.

34. First, entry assistance can limit incentives for innovation and network development by incumbent suppliers. When an incumbent supplier is required to allow competitors to access its network at relatively low prices, the incumbent's incentives for innovation and network development can be diminished severely. These incentives can be diminished even more severely if the incumbent supplier is forced to bear the expense required to ensure that competitors secure the same costs as the incumbent when employing the incumbent's network. Policies that stifle innovation and network development are contrary to the long-term interests of end-users of telecommunications services.[28]

35. Second, entry assistance can limit incentives for innovation and cost reduction by potential industry suppliers. If potential competitors believe that entry assistance will eliminate any cost disadvantages they face, the competitors will have limited incentive to eliminate the cost disadvantages themselves, even if they could readily do so. Therefore, entry assistance that is

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[25] *ibid.*

[26] The ACCC would be ill-advised to design policies that promote the particular form of "competitive neutrality" the ACCC cites in its *Final Decision* (§ A.2.3, p. 51) and in its *Draft Decision* (Appendix E.2.1, p. 74). As explained above, policies that attempt to equalize the marginal production costs or the profits of industry participants provide little or no incentive for the participants to reduce their operating costs and undertake efficient investments. Consequently, such policies can dull competition rather than further "the objective of promoting competition" (section 152AB of the Act).

[27] Section 152AB of the Act.

[28] The ACCC suggests that reducing the profit that Telstra secures from supplying ULLS may enhance Telstra's "incentives to invest in alternative platforms" (ACCC, *Draft Decision*, Appendix E.2.1, p. 76). Such incentives will be limited if Telstra anticipates a substantial likelihood that concerns with competitive neutrality will fuel regulatory policy that compels Telstra to provide its competitors with subsidized access to the new platforms.

designed to compensate new industry suppliers for prevailing cost disadvantages can perpetuate the disadvantages and thereby undermine the competitive process, to the long-term detriment of consumers.

36. Third, the entry assistance contemplated here does not appear to afford adequate consideration to "the direct costs of providing access to [ULLS] services."[29] For the reasons explained above, such consideration would seem to require that ULLS users at least pay for the costs that are clearly and directly attributable to the service they consume. Thus, this entry assistance appears to be inconsistent with the ACCC's mandates.

37. Fourth, entry assistance often tends to remain in place long after it has served any useful purpose (if indeed it serves any useful purpose at all). Competitors naturally become accustomed to the benefits provided by entry assistance and object strenuously to the elimination of those benefits. As competitors gain political influence over time, their wishes become increasingly difficult to ignore. I am not aware of any plans to terminate the practice of charging non-users of ULLS for ULLS-specific costs as Telstra continues to incur such costs in the future. It is not clear that the tax presently serves the long-term interests of end-users. It is even less clear that an ongoing tax of this nature will serve the long-term interests of end-users.

38. Fifth, even temporary entry assistance can increase industry costs by facilitating the operation of inefficient operators. When a competitor is afforded access to ULLS at below-cost prices, it may be able to operate profitably in the market even when it is a less efficient supplier than Telstra.[30] Industry costs increase and valuable resources are wasted when production is undertaken by firms that are not the least-cost industry suppliers. Consequently, entry assistance can limit the "economically efficient operation of … [the] telecommunications network" in Australia.[31]

39. Sixth, by facilitating the operation of competitors that are less efficient than Telstra, entry assistance jeopardizes Telstra's ability to recover efficient costs. Consequently, entry assistance fails to protect Telstra's "legitimate business interests."[32] In doing so, entry assistance limits the financial return that potential investors anticipate from supplying capital to Telstra, and so can limit "economically efficient … investment in [telecommunications] infrastructure" in Australia.[33]

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[29] Section 152AH of the Act.

[30] This potential for inefficient operation is enhanced when Telstra is required to charge uniform prices for the unbundled basic access service throughout Australia. The resulting supra-competitive prices that Telstra must charge in urban areas to finance the below-cost prices charged in rural areas can allow competitors to operate profitably in urban regions even when their costs substantially exceed Telstra's costs

[31] Section 152AH of the Act.

[32] *ibid*.

[33] Section 152AB of the Act.

40. Seventh, entry assistance can induce competitors to choose inefficient production technologies. When ULLS is priced below cost, a competitor may rationally decide to operate using ULLS even though the competitor's total operating costs would be lower if it employed a different means of production (e.g., full facilities-based operation). Industry costs increase and valuable resources are wasted when industry participants operate using other than the least-cost means of production. By inducing the adoption of inefficient production technologies, entry assistance can limit "the economically efficient operation of, and the economically efficient investment in the [telecommunications] infrastructure" in Australia.[34]

V. PROVISIONS FOR IMPLEMENTING THE CHARGE ON TELSTRA LINES HAVE NOT BEEN SPECIFIED

41. I am not aware of any explicit provisions that have been instituted or are planned to ensure that Telstra can pass on to its customers the non-user tax the ACCC envisions imposing on Telstra, but not on all other suppliers of telecommunications services (e.g., suppliers of cable telephony and wireless telecommunications services). It is important to note in this regard that Telstra operates under price cap regulation. By restricting Telstra's ability to increase the prices it charges for key services, price cap regulation can limit Telstra's ability to recover the envisioned non-user tax from its customers of regulated services.[35]

42. If Telstra cannot recover the non-user tax from its customers of price-capped services, it could, in principle, recover the tax from customers of non-regulated services. In practice, however, competitive pressures may limit Telstra's ability to do so. If price cap regulation and competitive pressures prevent Telstra from raising its prices to recover the asymmetric non-user tax from its customers, then the tax will effectively will be levied on Telstra's shareholders. Consequently, the envisioned policy could require Telstra's shareholders to subsidize the operation of industry competitors. Such a policy clearly is contrary to Telstra's "legitimate business interests."[36] Such a policy also could limit Telstra's ability to attract the capital it requires to continue to invest in and improve its network infrastructure, as potential investors will have little or no interest in supplying funds that will be employed to promote industry competitors. Policies that inhibit the ability of efficient suppliers of telecommunications services to attract capital do not encourage "economically

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34 *ibid*.

35 In noting that retail prices were below the relevant price cap in 2003 – 2004 (ACCC, *Final Decision*, § 6.2.2, p. 27), the ACCC appears to acknowledge that a constraining price cap can inhibit Telstra's ability to recover the non-user tax it would face under the policy envisioned by the ACCC.

36 Section 152AH of the Act.

efficient investment … in infrastructure" and fail to serve "the long-term interests of end-users" of telecommunications services.[37]

VI. The Arguments of Opponents are Flawed

A. The Optus Submission Contains Numerous Incorrect Assertions

43. Optus recommends that ULLS-specific costs "be divided across all customer access network ("CAN") lines and not simply ULLS services purchased by access seekers."[38] Optus' recommendation, however, reflects a variety of economic assertions that are incorrect. These incorrect assertions include the following five.

44. First, Optus claims that "ULLS specific costs are not caused by supplying ULLS."[39] Service-specific costs are costs that would not be incurred if the service in question were not produced. If Telstra were not required to supply ULLS and so did not supply ULLS, Telstra would not incur ULLS-specific costs. In this sense, ULLS-specific costs clearly are caused by supplying ULLS, contrary to Optus' claim.

45. Second, Optus claims that "to ensure efficient use of infrastructure as well as competitive neutrality between choice of technologies and suppliers, ULLS users should not be charged for "fixed and/or common" ULLS-specific costs.[40] This assertion is incorrect. To illustrate the error in this assertion most simply, consider the following extreme setting. Suppose Telstra can supply all ULLS that access seekers demand by incurring a cost of 100. This 100 is a fixed cost in the sense that the cost of supplying any positive level of ULLS does not vary with the amount of ULLS supplied. Further suppose that if all access seekers employed only their own infrastructure to serve their customers, their combined total operating costs would be 50. In this setting, industry operating costs would be minimized if the access seekers employed only their own infrastructure. However, if they were not obligated to pay any of the 100 Telstra incurred to supply ULLS, the access seekers would employ ULLS. This simple example illustrates the more general principle that the failure to charge ULLS users for all ULLS-specific costs (both fixed and variable costs) can increase industry costs by distorting the technology choices of competitive suppliers of telecommunications services.[41]

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[37] Sections 152AB and 152AH of the Act.

[38] *Optus Submission to the Australian Competition and Consumer Commission on Telstra's ULLS Undertakings.* Public Version, March 2006 ["***Optus submission***"], ¶ 3.2.

[39] *ibid*, ¶ 3.2 (e).

[40] *ibid*, ¶ 3.3.

[41] The AAPT does not address this distortion (or the other distortions identified in section I above) when it concludes that "Telstra should not be allowed to recover any ULLS-specific or LSS-specific costs in the

46. Third, Optus claims that "where the 'cause' of the ULLS specific costs is … the declaration of the service, … spreading the ULLS specific costs over all CAN lines [will not] lead to inefficient consumption and investment decisions."[42] This claim is incorrect. Regardless of the "cause" of ULLS-specific costs, the failure to charge ULLS users for the entirety of these costs can bias their choice between ULLS and other means of supplying telecommunications services to customers. The simple example presented in the preceding paragraph illustrates this more general principle, as does the discussion in section IA above. As Telstra incurs ongoing ULLS-specific costs and industry competitors anticipate paying only a fraction of these costs for ULLS, the competitors will find it profitable to employ ULLS in place of other inputs that are less costly to produce. The resulting "inefficient consumption and investment decisions" (to use Optus' terminology) will raise industry costs and waste valuable resources, and fail to encourage "the economically efficient operation of, and the economically efficient investment in the [telecommunications] infrastructure" in Australia.[43]

47. Fourth, based on the premise that "All beneficiaries of the declaration should contribute to the ULLS specific costs", Optus concludes that "Therefore, the costs should be spread over all CAN lines."[44] Optus further asserts that under its preferred method of spreading ULLS-specific costs, Telstra will recover the costs "from all persons who benefit from the increased competition caused by the declaration."[45] Optus does not explain why consumers of cable telephony and wireless telecommunications services (for example) will not benefit from the increase in competition that is alleged to flow from increased ULLS usage. As noted in section IIIB above, these consumers (and others) might well benefit from increased industry competition. Consequently, Optus' call for contributions from *all* beneficiaries of increased competition would seem to require payments by consumers of cable telephony and wireless telecommunications services, among others.

48. Fifth, Optus claims that if ULLS users are required to bear all relevant ULLS-specific costs, Telstra will have "no, or little, incentive to ensure efficiency."[46] This claim is incorrect because the

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price that it charges access seekers for the ULLS and LSS respectively" (*Submission by AAPT Limited to the Australian Competition and Consumer Commission in response to Telstra's Undertakings for the Unconditioned Local Loop Service & Telstra's Undertakings for the Line Sharing Service Discussion Papers, March 2005* ["**AAPT submission**"], May 2005).

42 *ibid*, ¶ 3.11.

43 Section 152AB of the Act.

44 *ibid*, ¶ 3.8.

45 *ibid*, ¶ 3.10.

46 *ibid*, ¶ 3.2(b).

costs that ULLS users would be required to bear under such a policy are the ULLS-specific costs that an efficient producer of ULLS would incur. These costs are not necessarily the costs that Telstra actually incurs. If Telstra allows the costs it incurs in supplying ULLS to rise above efficient levels, Telstra will bear fully the excess cost that arises from its inefficiency.[47] Therefore, even when ULLS users bear all efficient ULLS-specific costs, Telstra has strong incentives to deliver ULLS at minimum cost.[48]

49. In addition to assertions like these five that are incorrect as a matter of fact and logic, Optus makes several claims that are at best questionable. Consider the following three claims, for example.

50. First, Optus asserts that "The all CAN lines approach better achieves allocative and productive efficiency by spreading the costs over a broader base."[49] This assertion, like many of Optus' assertions, is difficult to assess because it fails to define key terms. However, it seems reasonable to assume that Optus defines "allocative and productive efficiency" as the ACCC defines these terms.[50] Using these definitions, the discussion in section IA above explains why Optus' assertion is incorrect. To reiterate, when access seekers are afforded the opportunity to purchase ULLS at a fraction of the cost of supplying ULLS, access seekers will rationally choose to purchase ULLS even when their operations would entail lower total production costs if they employed alternative technologies (e.g., full facilities-based operation). The higher costs associated with ULLS-based operation implies that firms are <u>not</u> producing "the goods and services that they offer at least cost,"[51] and so productive efficiency is not ensured.

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47 In this regard, the ACCC rejects Telstra's objections to relying on the CMPI/ASS's assessment of ULLS-specific costs. The ACCC does so on the grounds that "Telstra has not presented evidence that it has incurred efficient costs" (ACCC, *Final Decision*, § A.3.2; ACCC, *Draft Decision*, Appendix E.3.5, p. 86).

48 Optus cites one study by Brouckaert and Verboven that suggests a partial pass-through of costs can reduce incentives for "gold plating" (*Optus submission*, ¶ 3.18). Optus fails to cite other studies that explain the merits of charging access prices that exceed costs, even if access is not produced with increasing returns to scale. (See, for example: T. Randolph Beard, David Kaserman, and John Mayo, "Regulation, Vertical Integration, and Sabotage", *Journal of Industrial Economics*, 49(3), September 2001, pp. 319-333; and Øystein Foros, Hans Jarle Kind, and Lars Søgard, "Access Pricing, Quality Degradation, and Foreclosure in the Internet", *Journal of Regulatory Economics*, 22(1), July 2002, pp. 59-84.) Access prices in excess of relevant production costs provide financial incentives for the access supplier to facilitate the success of access seekers (and thereby promote expanded purchases of access services).

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49 *Optus submission*, ¶ 3.2(f).

50 ACCC, *Final Decision*, § 4.2.4.

51 *ibid*.

51. Second, Optus recommends the "all CAN lines approach" in part on the basis of the notion that this approach limits Telstra's "strong incentives to underestimate demand and thereby increase prices [of ULLS]."[52] Any policy for setting ULLS prices that does not rely heavily on Telstra's demand forecasts serves this same purpose. Consequently, the particular appeal of the all CAN lines approach in this regard is not apparent. Furthermore, Optus fails to discuss the incentives that access seekers and other parties that might benefit from saddling Telstra with ULLS-specific costs have to exaggerate the demand for ULLS, and thereby secure low prices for ULLS.[53] In addition, simple policies that ensure payments by ULLS users closely match efficient ULLS-specific costs are readily implemented even when ULLS demand is difficult to forecast accurately.[54] Because these simple policies simultaneously limit incentives for exaggeration and understatement of ULLS demand, an approach like the all CAN lines approach is not needed to provide all parties with appropriate incentives to forecast ULLS demand accurately.

52. Third, Optus alleges that the "'public' benefits [that] arise from the ULLS … [are] much greater" than the corresponding private benefits.[55] As noted in section II above, the magnitude of the "public benefits" that will arise from expanded ULLS use is a key missing link in the argument in support of approaches like the all CAN lines approach to assigning ULLS-specific costs. If Optus has concrete evidence that the relevant public benefits are "much greater" than the corresponding private benefits, the evidence would be a useful contribution to the present proceedings.

B. Conclusions in the CoRE Report are Questionable

53. Like the Optus report, the CoRE report presents some questionable conclusions.[56] For example, the CoRE report suggests that Telstra will be compensated for ULLS-specific costs through USO payments (§ 3.2). In practice, such payments may provide little, if any, meaningful compensation for at least three reasons. First, USO payments pertain only to regions in which Telstra incurs explicit financial deficits, whereas Telstra incurs ULLS-specific costs much more broadly. Second, Telstra presently is obligated to make the majority of USO payments (to itself),

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[52] *Optus submission*, ¶ 3.2(d).

[53] These incentives are discussed in the *Expert Report of David E. M. Sappington on ULLS-Specific Cost and Payment Reconciliation*, submitted to the Australian Competition and Consumer Commission in the Matter of Assessment of Telstra's Unconditioned Local Loop Service Monthly Charge Undertakings, 28 July 2006 ("**Sappington** r**econciliation report**").

[54] Such policies are described in the Sappington reconciliation report.

[55] *Optus submission*, ¶ 3.8.

[56] *The Treatment of ULLS Specific Costs: A Report on Behalf of the Australian Competition and Consumer Commission*, CoRE Research Report by Joshua Gans, 29 May 2006.

and so will effectively be financing much of the ULLS-specific costs even in those regions where it incurs a financial deficit. Third, serious doubts have been raised regarding the efficacy of the USO regime in compensating Telstra for the deficits it incurs in rural regions of Australia.[57]

54. The CoRE report also asserts that spreading ULLS-specific costs across all CAN lines will provide Telstra with "greater incentives to economise on the costs" of providing ULLS (§ 3.3). In addition, the report asserts that the less diffuse spreading and the "complete pass-through" of costs in Telstra's undertakings provide Telstra with "no incentives for cost containment" (§ 3.3). These assertions are questionable because, as noted above, the ULLS-specific costs in question reflect efficient costs and not the costs Telstra actually incurs to deliver ULLS. Consequently, Telstra has strong incentives to minimize the costs it actually incurs in delivering ULLS whether these costs are spread across all ULLS lines or all CAN lines.[58]

55. The CoRE report also suggests that the proposed ULLS prices do not "adhere to the principle of competitive neutrality" because the line usage price for ULLS exceeds "Telstra's short-run marginal costs of line usage provision" (§ 2.2). It is generally unwise to systematically pursue policies that seek to equate the operating costs of industry producers. As noted above, such policies provide little, if any, incentive for industry producers to innovate and reduce their operating costs.

SUMMARY AND CONCLUSIONS

56. In summary, basic economic principles dictate that ULLS-specific costs be recovered fully from ULLS users. Such recovery also is entirely consistent with the ACCC's statutory mandates. The ACCC suggests that a broader recovery of ULLS-specific costs will better promote competition by equalizing the short-term costs of industry suppliers. For the reasons explained above, this primary alleged attribute of the ACCC's preferred policy may actually constitute more of a cost than a benefit. Policies that equate the costs of industry participants can severely limit incentives for innovation and cost reduction and thereby undermine the competitive process and so fail to promote "the long-term interests of end-users" of telecommunications services.[59]

57. The broader recovery of ULLS-specific costs that the ACCC envisions by imposing a non-user tax on Telstra suffers from at least four additional deficiencies. First, the rationale for the non-user tax is based on hypothetical benefits that are difficult to substantiate. Consequently, it is not

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[57] See for example, the observations in the Statement of Geoffrey David Sims (*In the Matter of Undertakings Dated 23 December 2005 Provided by Telstra Corporation Limited to the Australian Competition and Consumer Commission in Respect of Unconditioned Local Loop Service*, 21 July 2006).

[58] Because ULLS-specific costs reflect efficient costs and not the costs Telstra actually incurs to deliver ULLS, Telstra has at best limited ability to engage in the sort of "sabotage" suggested in the AAPT submission.

[59] Section 152AH of the Act.

apparent that the benefits Telstra's customers may eventually receive from expanded ULLS usage outweigh the ULLS-specific costs they and/or Telstra's shareholders will be required to bear. Therefore, it is not clear that the envisioned non-user tax serves the long-term interests of end-users of telecommunications services in Australia.

58. Second, the envisioned policy may require some individuals (e.g., Telstra customers who live in rural regions of Australia) to both pay the non-user tax and face higher retail prices because of the expanded use of ULLS the tax facilitates. In contrast, some consumers of telecommunications services (e.g., wireless, VoIP, and cable telephony services) may both escape the non-user tax entirely and enjoy the long-term benefits of lower industry prices if the conjectured price reductions ultimately materialize. It is far from apparent that such an asymmetric distribution of costs and benefits best serves the long-term interests of end-users.

59. Third, because the non-user tax is imposed asymmetrically on Telstra, the tax is not competitively neutral, and so may distort industry competition. The tax (which is a form of entry assistance) can facilitate the operation of inefficient competitors and induce them to employ inefficient production technologies. In doing so, the tax can raise industry costs and fail to promote the "economically efficient operation of, and the economically efficient investment in" the telecommunications infrastructure in Australia.[60]

60. Fourth, to my knowledge, the ACCC has not specified how Telstra will be permitted to implement the non-user tax it faces to subsidize the operation of competitors. If prevailing regulatory policies or competitive pressures limit Telstra's ability to recover the non-user tax from its customers, Telstra will be obligated to recover the tax from its shareholders. Such an obligation is contrary to Telstra's "legitimate business interests."[61]

61. Fortunately, there is a simple alternative policy that avoids these deficiencies of the non-user tax the ACCC envisions. The alternative policy is the policy the ACCC has historically implemented: recovering all ULLS-specific costs from ULLS users. Such recovery is faithful to basic economic principles and the ACCC's mandates alike. It also better matches charges to demonstrable benefits, and limits incentives for operation by inefficient competitors employing inefficient production technologies. Consequently, the ACCC's historic policy of recovering all ULLS-specific costs from ULLS users is a more reasonable policy that better serves "the long-term interests of end-users" and better promotes the "economically efficient operation of, and the economically efficient investment in" the telecommunications infrastructure in Australia.[62]

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[60] Section 152AB of the Act.

[61] Section 152AH of the Act.

[62] Section 152AB of the Act.

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July 28, 2006