

Senate Standing Committee on Environment and Communications

Answers to Senate Estimates Questions on Notice

Additional Estimates Hearings February 2014

Communications Portfolio

Department of Communications

Question No: 72

Program No. 1.1

Hansard Ref: In Writing

Topic: Telstra's Copper Network

Senator Urquhart asked:

In relation to the operation of Telstra's copper network:

- a. Is the transmission of the high frequencies used for broadband services over copper pairs more susceptible to faults caused by poor joints and copper corrosion than voice frequencies?
- b. Where field technicians find that an allocated twisted pair is not working they will sometimes utilise an "unmatched" pair by using one wire from each of two twisted pairs. If this pair is used for broadband will other pairs in the cable experience greater interference at voice frequencies or at the higher frequencies used for broadband?
- c. When there is external interference from external sources (as referred to on page 42 of 154 on the summary of advice provided to the Department by NBN Co and published by Delimiter) does this affect all services in a cable?
- d. Does the Department support NBN Co's contention in the Strategic Review that voice fault rates are a suitable proxy for data faults that rely on higher frequencies?
- e. Is it the responsibility of the Department or the ACMA to understand the operation of Telstra's copper network and provide advice to Government?

Answer:

- a. Generally yes. However it can vary on a case by case basis. For example a 'bad joint' may manifest itself in an analogue voice service as a fuzzy or scratchy reception but a DSL service may function adequately.
- b. If it were possible to provide an ADSL service using one wire from each of two twisted pairs, it would be at a very low speed and therefore producing very little interference compared to other pairs within the cable with properly functioning services. This scenario however would have to be field tested for a definitive answer.
- c. The level of any interference would be dependent on the location of the pair within the cable in relation to the source of external interference.
- d. Yes, for the purposes of the Strategic Review voice fault rates were a suitable proxy for data faults.
- e. Both the Department and the Australian Communications and Media Authority (ACMA) require an understanding of how Telstra's copper network operates. The Department requires this information to effectively develop telecommunications policy. The ACMA requires this information to effectively regulate Telstra and the wider telecommunication industry. The Department and the ACMA both provide advice to Government on the operation of Telstra's copper network where appropriate.