



# PREVENTING FRAUDBAND

## Fast, reliable internet

### Creating the National Broadband Network Australia needs

Fast, reliable broadband has the potential to transform the lives of Australians. The Greens are committed to getting a universal-access, fast-fibre National Broadband Network back on track, and reversing the mistakes of the Abbott-Turnbull ‘multi-technology mix’ disaster as rapidly as possible.

The National Broadband Network was one of the most ambitious infrastructure projects ever attempted in Australia. In the event of a change of Government, an important opportunity will arise to hit reset on this troubled project, and bring it to completion.

The Greens propose to renew the terms of reference of the Senate Select Committee on the NBN and immediately undertake a multi-party inquiry into the most cost-effective and future-proof architecture for the NBN.

#### >The NBN debacle: how did we get here?

Based on the advice of an Expert Panel and the broader telecommunications sector, in 2009 the Rudd Government abandoned plans to build a ‘Fibre to Node’ (FTTN) network, and announced that it intended to deliver an end-to-end optic ‘Fibre-to-the Premises’ network to 93% of Australian homes and businesses (FTTP). 4% of Australian premises would be served by new fixed wireless coverage, and the final 3% would be served by new satellite data coverage. Telstra’s ageing copper distribution network would be progressively shut down.

Intrinsic to this model, Telstra’s wholesale and retail arms were ‘structurally separated,’ effectively part-reversing the privatisation of Telstra and bringing the wholesale network back into public hands. As well as levelling the competitive playing field, this allowed NBNCo to use Telstra’s pipes and ducts, and offer uniform wholesale pricing to retail service providers across the whole country, with the lucrative metropolitan markets offsetting the cost of the new satellites and fibre delivery to regional areas. Under this model, all Australians were to benefit no matter their postcode.

During parliamentary debates, the Greens negotiated amendments to remove the automatic privatisation

trigger in the bill and to make it as difficult as possible for a future Government to privatise the NBN, and supported a range of other amendments to ensure that the market would be as low-cost, diverse and fair as possible in future.

During the 2013 election campaign, Opposition leader Tony Abbott instructed Malcolm Turnbull to ‘demolish the case for the NBN’, exploiting inevitable delays in the rollout and low levels of public understanding as to the nature of the technology. The campaign undermined confidence in the NBN and inflicted a previously rejected ‘Fibre to the Node’ proposal on an unsuspecting public. Following the change of Government and sweeping change of NBN’s management, Mr Turnbull set about demolishing the fast-Fibre NBN and replacing it with a patchwork of old copper, pay TV networks and a grudging installation of some residual FTTP. It is one of the few election promises the incoming Government actually kept, but the reality fell far short of the half-baked proposals.

Fibre to the Node relies on Telstra’s dilapidated copper network for the so-called ‘last mile’ to millions of premises, imposing a permanent choke on bandwidth that will render it obsolete before it is even built.

Predictably, three years have been wasted, the FTTN rollout is in serious trouble, it is unclear for how long the pay TV cables will be fit for purpose, and the project is vastly behind schedule and over budget. It is time for change.

#### > The benefits of high-speed connectivity

When Australians once turned to television and newspaper services for their news and entertainment, those services are now being replaced by live streaming,

---

video on demand and digital news publications. When we once phoned our friends and relatives around the world monthly, we now engage daily thanks to chat applications and video streaming. The NBN has the potential to open up regions, helping people to work remotely and collapse some of the 'tyranny of distance'. It can encourage entrepreneurship and innovation, by transforming the level of work someone can complete from home. It can reshape education, opening students to more diverse information, engaging people in new ways and connecting them in remote areas. It can transform emergency services, helping fire-fighters, paramedics and police to address emergencies as they unfold. A fit-for-purpose NBN has the potential to change the way we live our lives. Because of this, the average home's data consumption is continuing to rise exponentially. As bandwidth demands rise, internet speeds slow as the networks become overloaded.

The NBN is not just a piece of infrastructure; access to it is a matter of social inclusion. Access to digital networks is a right, and it is incumbent upon government to make it fast and affordable.

## > What the Greens propose

The Greens propose to renew the terms of reference of the Senate Select Committee on the NBN and immediately undertake a multi-party inquiry into the most cost-effective and future-proof architecture for the NBN.

This work should be informed by an independent panel of technologists, academics, engineers, user advocates, NBN advisers and other experts, and by the assistance of Infrastructure Australia to assist with a 20-30 year life-cycle cost benefit analysis and other technical work.

In undertaking these studies and proposing a pathway forward, transparency will be essential, in terms of disclosing the commercial arrangements between the Commonwealth Government, Telstra, Optus and other partners, the technical challenges of adapting pay-TV networks to two-way broadband networks, and the rapidity with which the FTTN build can be bought to a halt.

Subject to the outcome and recommendations of these investigations, it is the view of the Australian Greens that the following options should be prioritised.

### **FIBRE TO THE PREMISES**

The Greens believe the Fibre to the Node (FTTN) proposal was an avoidable mistake. Complexities, cost overruns and huge delays mean it will actually be cheaper and

faster to return to a FTTP build, with the possible exception of case-by-case installation of Fibre-to-the-Basement in some older multi-unit dwellings. NBN should cease installation of FTTN connections as soon as contractual obligations allow.

### **HFC NETWORKS**

In April 2016 NBN agreed to pay Telstra \$1.6 billion to upgrade and remediate the Hybrid Fibre Coaxial (HFC) network used to deliver pay television, despite published trials of the technology in February 2016 showing that average speeds fell well below 100Mbps minimum download speeds. The \$800m NBN paid to take over Optus' HFC network may be even more of a waste: the network is in such poor shape it may need to be overbuilt entirely. Networks laid out many years ago to deliver pay TV are vastly inferior to the kind of end-to-end Fibre network proposed under the original plan, for reasons of signal interference, old equipment and complexity of outdated network equipment. The Greens believe that subject to rigorous life-cycle cost-benefit analysis and further technical evaluation, the HFC networks may not be fit-for-purpose and should be retired in favour of FTTP delivery.

### **FIXED WIRELESS**

The Greens support the installation of new fixed wireless towers in areas where FTTP is simply uneconomic, as assessed by NBN and within the original envelope of no more than 4% of premises. In order to avoid repeated disputes with local communities about tower locations as in the past, NBNCo should prioritise early, transparent and flexible consultations with regional communities.

### **SATELLITE**

It is likely that a third satellite will be required and should be costed and provisioned without waiting for overloaded demand from regional areas. These anticipated costs should be built into NBN's financial forecasts now, rather than waiting for inevitable demand saturation.

### **MARKET**

The Greens support the principle that NBN should remain Australia's sole universal-access, wholesale service provider, that it should be constrained from drifting into competitive retail service provision, and that it should remain in public hands.