



**NSW REGIONAL COMMUNITIES CONSULTATIVE  
COUNCIL**

**Response to the Australian Government  
Department of Broadband, Communications and  
the Digital economy  
BACKHAUL BLACKSPOTS INITIATIVE STAKEHOLDER  
CONSULTATION PAPER.**

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## Response Content

*This submission is drawn from several years of consultation, engagement and research by the NSW Regional Communities Consultative Council (RCCC) into emerging trends, and the innovative international, national and local models of broadband deployment, with a focus on enabling communities to plan for a digital future, from the ground up.*

### Context of this Report

The Regional Communities Consultative Committee identified the critical need for high speed affordable Broadband for new business, business growth, service delivery and community capacity as a key pillar of regional economic development and community sustainability several years ago, and the issue is a key focus for the RCCC.

The RCCC has focussed research on State, national and international initiatives to identify models of best practice with the potential to aid the development of Broadband infrastructure and IT capacity, particularly in regional NSW.

### The importance of broadband services

There is now no doubt or argument about the critical role that high capacity effective and affordable Broadband and Telecommunications will play in regional development. In conjunction with the recent Gellatly-led Rural and Regional Taskforce public inquiry into regional infrastructure, the NSW Regional Communities Consultative Council, reporting to the minister for Regional Development, consulted with a further 113 regional NSW communities in five regions. The critical need for improved telecommunications and broadband was universally cited as within the top five priorities for communities, and is recognised by them as a critical pillar of economic development, as well as a vital social infrastructure for the retention of young people, businesses, skills and professionals RIGHT NOW.

The aforementioned NSW Rural and Regional Taskforce report identified identical concerns from the major cities of regional NSW.

The RCCC considers that Universal, Open access to broadband infrastructure is the key to economic revival, social resilience, sustainability, and equity in rural and regional areas.

The RCCC contends that Government has a clear role in providing the strategic direction and anchor tenancy to drive productivity and overcome the digital divide.



## The NBN - A new Era

The election of the new Federal Labor Government has set a mandate, endorsed by the voting public, to 'fix' the broadband problem in Australia and ensure the nations future is a connected one.

The new Federal government is investing in a comprehensive national open access optical fibre network to the premise. The initiative has the potential to ensure Australia has a chance to catch up with the rest of world.

### Backhaul Consultation Paper Issues - 4.1 Locations

*Stakeholders' views are sought on the following matters:*

1. *priority locations that are lacking an alternative backhaul supply and the reasons for their priority*

#### Response

The long term foundation for high speed information exchange is the building of the necessary fibre optic networks. This is reliant on the availability of contestable, accessible backhaul, long identified as the main retardant of competitive next generation Broadband infrastructure deployment in regional areas.

In regional NSW the majority of backhaul services are delivered by Telstra at high prices which reduce competitive outcomes. This is exacerbated when Telstra backhaul infrastructure is the only option available. Arguably the next largest provider of backhaul services in regional NSW is Soul/TPG due in large part to a decision by the NSW government to initiate a government broadband service based on alternative IP infrastructure deployment, supported by capital and recurrent NSW government funds.

The government Broadband Service comprises a range of fibre deployments (under varied ownership, but utilised by Soul/TPG on behalf of NSW) including fibre loops in sixteen regional cities installed under a previous Federal program. NSW also initiated the government radio network which delivers high speed IP backhaul and access to some outlying regional centres via high capacity point to point microwaves. This is an underutilised asset with excess capacity with potential to 'vest in to the NBN'.

NSW (and other states) should be encouraged to 'open up' underutilised government backhaul assets - radio and/or fibre - in the interim, in the context of the proposed NBN model, whilst underserviced locations are identified for roll out of fibre based backhaul.



PRIORITY LOCATIONS

In NSW the locations where lack of contestable backhaul is an issue can largely be summed up as those portions of geography outside the so-called narrow ‘J-curve’ of Australia, which comprises the populated coastal area of NSW. 15km either side of this coastal fibre thoroughfare (east and west) and access to contestable backhaul at sensible prices is extremely limited.

Priority location areas for fibre backhaul deployment should be those communities undergoing significant transformation due to the stressors of external factors including:

- Drought and water buy back issues
- Unplanned for Growth (coastal areas)
- Commodity down turn
- High unemployment especially in Indigenous demographic
- Food & fibre production regions to enable higher productivity
- Demonstrated digital divide
- Limited access to education and health services

Locations experiencing difficulties due to these factors, combined with the overarching issue of the current global financial environment have the potential to significantly benefit from the social inclusion and economic development outcomes that improved connectivity via high capacity, affordable Broadband can deliver.

Specific Locations in these categories include but are not limited to:

1. South Coast of NSW south of Wollongong
2. Murray River region, east and west of Albury/Wodonga, including Corowa, Moama, Deniliquin, Swan Hill, Balranald Jerilderie, Wilcannia etc (There is opportunity here to work closely with Victorian government who have done some scoping work for a backhaul fibre run from Echuca back to Wodonga - a strategic approach would see the NSW border towns linking into this backhaul under the NBN framework.
3. The Murrumbidgee and Hay Plains area, including townships like Hay, Griffith, Leeton etc - some NSW assets exist here, but are not yet accessible.
4. The far west - Broken Hill, Wilcannia, Bourke, Brewarrina etc



- 5. The north coast small townships, such as South west Rocks and Crescent head - there seems to be an assumption that the Sydney to Brisbane trunks are accessible to smaller townships but this is not correct - backhaul access is not contestable and existing access prices out competitive services
- 6. The northern tablelands hinterlands of Armidale, Grafton etc

2. *possible routes for the links to the priority locations, including any potential locations where backhaul capacity should be broken out, and*

## Response

RCCC research demonstrates that significant fibre assets exist in and between communities, some are closed to outside access, others are unlit, others have no access regime determined. Many are owned by government enterprise or agencies, such as rail, road and health agencies. In sixteen regional cities alone, aerial fibre loops are already installed, but lack of foresight means these loops are inaccessible as insufficient planning was applied for appropriate break outs for access by ISP's, business and community.

Effort needs to be applied to accurately determine where lack of contestable backhaul exists. Many communities would not know that this is an issue in which they should be aware and interested. Similarly State government agencies tend to adopt a narrow insular government service approach and are not reliable advisers in the context of community need. It is suggested that the task of community education/awareness and feedback to the Australian government regarding the critical local issues relevant to the NBN, could be a good fit/task for the new joint NSW and Federal Regional Development Australia entities. These bodies will have an overarching strategic remit for regional NSW and could assist in delivering a coherent and coordinated approach. RCCC would be pleased to present these ideas in more detail at a later date, should the Department be interested.

The RCCC recommends that previous government funded programs are considered in determining priority locations for backhaul roll out.

Previous State and Australian Government programs (prior to the NBN announcement) tend to be ad hoc and non standards based, and default to standard carrier business models which are not sustainable in lower populated/regional areas nor offer ubiquitous or open access.

NSW State strategies to date have focused on traditional internal government service delivery and efficiency dividends, but now is the time for all States to be convinced to take a strategic whole of community approach.

A NSW policy position was announced in 2002 to allow access by alternative providers and third parties to NSW owned telecommunications infrastructure but there is limited awareness by communities or third parties, about access opportunity to government infrastructure, which is not locally or centrally managed or facilitated.



There is a plethora of State owned and other communications assets throughout NSW regional communities, but in the absence of clear policy directives and strategic leadership, assets are either inaccessible, unlit, underutilized, restricted in access due to agency turf wars, or access and pricing regimes (where they exist) are unwieldy or unrealistic.

Convergence dictates a shift to all Internet Protocol (IP) networks, but individual agencies continue with independent deployments of duplicated, proprietary and soon to be obsolescent hardware, which is closed to the broader community, notwithstanding the lack of competition and acknowledged need.

The NSW Government Radio Network is a visionary and critical strategic infrastructure, but completion of its trunk expansion to all IP is compromised by aged or unsuitable site infrastructure, budgetary issues and creeping obsolescence in its legacy hardware, some of which is approaching a critical risk situation. However, the roll out since 2005 has seen the implementation of infrastructure for Broadband for emergency services throughout regional NSW to some of the State’s most remote areas and towns. This infrastructure can be leveraged to provide competitive backhaul to these towns on a low cost basis - and quickly.

As part of the NSW state government broadband network Soul built a regional network to the major regional towns in NSW. As a result, 24 towns were added to the Soul network and local exchanges built to deliver services to Government, Corporate and local businesses in these towns. This infrastructure directly encouraged competition resulting in reduced costs for services as a result of the new Soul presence - made possible by the NSW government investment.

As an example, NSW Government/Soul’s existing network access points can allow aggregation of regional infrastructure within a particular region. NSW towns such as Dubbo, Orange and Bathurst in NSW, where NAP’s now exist, can be used as aggregation points for blackspot towns radiating from these points, offering a star and spoke leveraged approach to backhaul implementation.

A further example - State and Federal Government funding implemented a backhaul service between Lithgow and Parks in NSW. This service also interconnected the towns of Bathurst and Orange providing competitive fiber into those towns

*3. The contestable market in each location and the wholesale price points required to attract interest from access seekers.*

The RCCC is not in a position to make accurate and comprehensive comment on this issue, other than to comment that affordability is critical.

## 4.2 Design and operational parameters

*Stakeholders’ views are sought on the following matters:*



1. *the type and capacity of services and associated operational arrangements that the network operator should provide to access seekers, including the costs of delivering these services and the charges that should be levied*
2. *the locations at which points of interconnect should be sited to enable secure and ready access by access seekers*
3. *the timeframes and costs associated with the planning, construction and commissioning of backhaul infrastructure in various terrains and locations*
4. *the extent to which fibre repeater/regenerator equipment would be required at locations other than population centres, and the approach in regard to the powering and housing of this equipment*
5. *the relative merits of deploying links that provide an alternate route to existing backhaul infrastructure, and*
6. *the relative merits of completing ring architectures as opposed to constructing spurs.*

## Response

The RCCC does not present itself as having the detailed technical knowledge to provide a detailed response to each of these matters.

However, our research has led to the development of an overarching framework of principles for a standards based, open access network. These are principles the RCCC considers should be applied when considering the design and operational parameters of the NBN, as follows:

### The Criticality of “Open” Networks

The real issue for all levels of Government supply authorities lies in ensuring that public investment enables and manages the information networks and flows in an “Open” way. It is vital that Governments work together to ensure that there is no repeat of the different rail gauge phenomenon of yesteryear, and that the potential of the digital economy is open and accessible to all communities.

### Standards Based Network Principles

- Development of an open nation-wide wholesale core backbone infrastructure model for sustainable low-cost high-speed high capacity wholesale services. It is recommended that this core network could utilise assets that have already been deployed by numerous providers at significant cost (NSW Government, NSW Government Radio Network (GRN), AAPT, Nextgen, Optus, Soul, Silk, Telstra etc), where they are prepared to provide full transparent interoperability as part of an open access wholesale only regime.
- a single wholesale infrastructure operated by a single wholesale operator (NBN Pty Ltd) with fixed interchange tariffs and access to any service providers who meet requirements for quality, efficiency, cost and security.



- Encouragement of Access networks operated by multiple service providers that build access networks utilizing the most appropriate technologies suited to local conditions. These may include: Fibre To the Home (FTTH), Broadband over Power Lines (BPL), Wi-Fi, WiMAX, 3G etc. Portability and mobility is still essential and a key complementary adjunct to the NBN, which will enable the development of these portable and mobile access networks, on local loop, regional and interoperable models.
- Anchor functions/services for service providers including telephony, government services, education, healthcare etc.
- A Community platform for participation, communication, referencing, publication and digital trading.

Further Comments:

The key point is interoperation - this is where all the vendors start arguing, and government agencies each with their individual supply authority don't really know how to grasp the nettle. This is already evident in departmental dependence on vendors and technocrats, & a proliferation of trials and slow decisions on technology roadmaps - a lack of appreciating the key issues underpinning the digital economy results in decisions basically being dictated by vendors and their resultant narrow vested interest. Visions are blurred and annulled by arguments about whose widget is best.....

A key lesson learnt by the Murray Regional Development Board in developing its public broadband initiative was the value of its Regional ICT committee which did NOT rely on technocrats, IT managers or vendors. The technical experts' have a frame of reference based on their personal knowledge of 'boxes' and how they work, but little strategic acumen or appetite for end user aspirations or organisational goals and outcomes.

**Committees or bodies charged with developing strategic outcomes for IT and broadband deployment MUST comprise the visionaries and users. There is still an unfortunate tendency to load such groups with IT Managers and technical folk, who have little appreciation for business needs, application use or strategic planning, but senior management needs to become sufficiently tech savvy to drive innovative change in a way that suits organisational goals, not IT managers comfort zones.**

Technocrats often find reasons why things cannot be done and are attached to old paradigms and proprietary and closed systems, rather than the new world of openness and all IP networks. Social, business, development and organisational entrepreneurs take the opposite approach, and find ways to make things happen.



The availability of advanced and competitive infrastructure will encourage competition as the preference for wholesale provision of access services should stimulate the development of locally based IT providers, particularly for networking, network design, applications and hosted services. The technical solutions now available and the network design architecture will provide an alternative to the ‘last mile’, which has traditionally been gate kept by the incumbent carrier both in pricing and the way access can be used.

### 4.3 Operational and ownership arrangements

*While the Australian Government has not made a final decision on the specific implementation and operational arrangements for this initiative, a potential model that aligns with the Australian Government’s objectives and requirements for this initiative is outlined below.*

- *Individual companies or consortia build new optical fibre regional transmission links to regional centres with the ownership retained by the Australian Government, and the proponent holding a long term indefeasible right of use over a number of optical fibres.*
- *The number of regional centres that can be assisted with this measure will increase if there are partnership arrangements. The projects that receive funding from the Australian Government would also attract contributions from other parties consistent with the value of the opportunity to those organisations.*
- *The involvement of an existing wholesale operator would enable competitive services to be offered to retail service providers immediately after the infrastructure has been put in place. For an agreed period the successful proponent could be responsible for maintaining and operating the infrastructure. The transmission services would be provided to all access seekers on equivalent terms and conditions and would include:*
  - *links between the communities on the new infrastructure to the point that the new link terminates with existing transmission infrastructure; and*
  - *links between the communities on the new link to a cost effective point of interconnection in the respective state capital.*
- *At a specified time the Australian Government will transfer the ownership of the infrastructure to the national broadband network company, which will deliver backhaul services over the link or acquire the services from the successful proponent.*

*Stakeholders’ views are sought on the following matters:*

1. *the proposed model including the ownership arrangements and commercial viability*

### Response

This model is identical to the regional Development model established, identified and promoted by the MRDB and RCCC over the last decade, and is obviously fully supported by the RCCC. We make the following comments in support of the Australian government’s proposal and encourage it to adhere to the principles enunciated to date;



The new model is disruptive; it will not be welcomed by traditional carriers as it challenges monopoly positions, and traditional assumptions. Significantly, traditional carriers can and will benefit from the new model, as the open access will enable greater opportunity for customers to exercise a pull market, and dependence on subsidised telecommunications service delivery can be relieved.

The model provides significant independence to regional and local businesses, industry, local government and residential customers to optimise the solutions they need, rather than being reliant on the service determined by traditional carriers, which are designed to meet the carrier’s bottom line. The proposed new model will deliver outcomes in accordance with the Communities triple bottom lines, of economic, social and environmental values.

The new model can embrace a consortium and/or partnership approach and comprise investors and partners with derived benefits for their own core business activities, to ensure that the profit motive is balanced against the socio-economic benefits from participation. It is affordable, sustainable and achievable.

Other initiatives under consideration could also be brought in under the NBN umbrella. For example Utility companies are required and funded under Productivity agreements to install smart metering of power to all homes. With vision, lateral thinking and a bit of hard work, this requirement for public utility investment could be leveraged and extended to deliver an alternative broadband infrastructure access layer to NSW regions.

Similarly ‘left field’ business opportunities can be leveraged to enhance sustainability - for example, CCTV cameras are being proposed for a range of sites but many are based on sole purpose closed access and proprietary technology. Internet Protocol based CCTV can underpin and build a business case for an open access business wireless network for a CBD or business district, backhauled on the NBN.

2. *the period of time for which indefeasible right of use should be available to the network operator, and*
3. *alternative models that would meet the Australian Government’s objectives.*

## Response

RCCC suggests 5 years with option of extension for same, subject to progress of NBN build. No alternative models suggested.



## Regional Communities Consultative Council Background

The Regional Communities Consultative Council (RCCC) is an independent, community advisory body to the Premier and the Minister for Rural Affairs. The Council is comprised of an independent Chair and fourteen committee members drawn from regional New South Wales, representing a broad range of knowledge and sectors, including: Social Services, Farmers, Women's, Young People, Ethnic Communities, Health, Aboriginal Communities, Religious, Trade Union, Local Government, Education, Environment, Business and Industry and Economic Development.

Members of the Council are:

Member	Town	Sector/Interest area	Constituent Group
Lynda Summers	Table Top	Chair	Independent
Julia Imrie	Mudgee	Environmental	Nature Conservation Council
Ruth Shanks	Dubbo	Women	NSW Country Women's Association
Iris White	Broulee	Aboriginal Communities	Minister for Aboriginal Affairs
Mick Madden	Orange	Union	Unions NSW
Tim Sheed	Jerilderie	Business & Industry	NSW Regional Development Advisory Council
Sue West	Bathurst	Health	Area Health Advisory Councils
Peter Quarmby	San Isidore	Social Services	Council of Social Services of NSW
John Ainsworth	Macksville	Farmers	NSW Farmers
Bernadette Wenner	Wee Waa	Youth	Minister for Youth
Fr Tim Cahill	Wellington	Religious Communities	NSW Ecumenical Council
Janet Hayes	Deep Creek	Local Government	Local Government Association of NSW and LGSA
Lyall Wilkinson	West Wyalong	Education	Federation of Parents and Citizens Associations of NSW
Kevin Abey	Armidale	Economic Development	Economic Development Australia (NSW)
Diane Erika	Yenda	Ethnic Communities	Ethnic Communities Council of NSW & CRC Community Relations Commission



## THE RCCC VALUE ADD

The value of the RCCC is in the broad representative perspective that the membership brings to the table within a collaborative and collegiate framework. In considering policy issues, government and agencies find the RCCC a useful reference group and an invaluable 'sounding board' for feedback from a body independent of government but representative of the main leadership sectors of regional New South Wales.

The RCCC has now developed in experience and skill to the extent that, despite the diverse backgrounds and interest of the individual members and their constituents groups, all issues, controversial or otherwise, can be considered in the context of a whole of regional NSW approach, independent of government. It is unique in this regard. Hitherto operating quietly 'behind the scenes', its recently revitalised membership is keen to utilise its capacity and potential to assume the more proactive and public role decreed by the Minister for Rural Affairs and Regional Development.