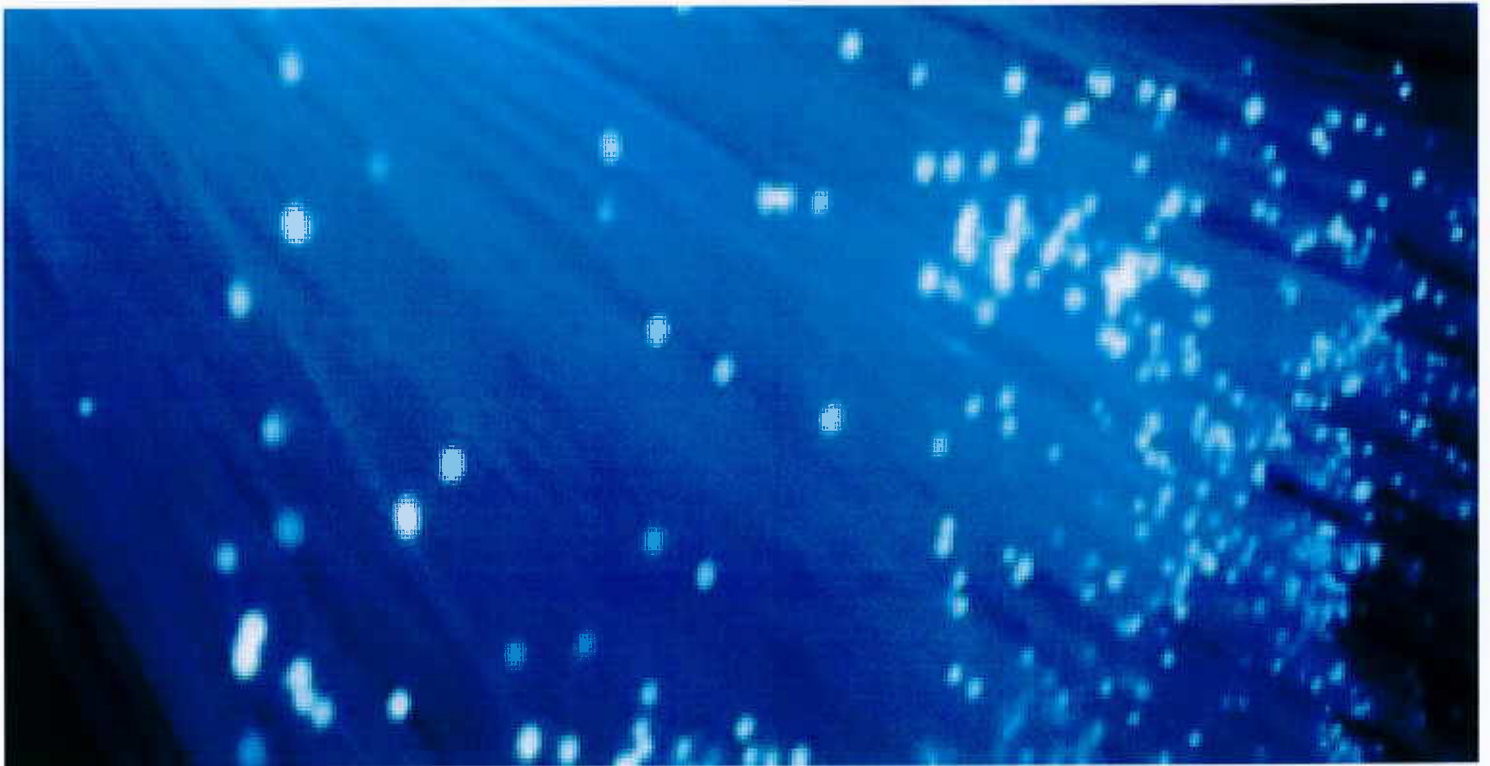


# Hunter and Central Coast Submission for priority rollout of the National Broadband Network





## RDA Hunter and Central Coast – Submission for priority rollout of the National Broadband Network

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# 1 Executive Summary

In response to the Federal Government's decision to build the National Broadband Network (NBN), Joel Fitzgibbon MP, Sharon Grierson MP and Jodi McKay MP convened a working party to ensure that the Hunter and Central Coast would be considered a priority region for the rollout.

The outcome was to initiate a project by Regional Development Australia Hunter and Regional Development Australia Central Coast - referred to jointly in this submission as Regional Development Australia (RDA) - to provide a business case for priority rollout.

Project partners included the University of Newcastle, Hunter New England Area Health Services, Hunter Medical Research Institute, Hunter Councils (representing 11 Hunter LGAs), Wyong Shire Council, Gosford Council and Industry and Investment NSW.

The project focused on presenting the region as:

1. Co-operative (13 LGAs combined); and
2. Capable (training and skills).

## Co-operative

RDA has actively engaged all 13 councils to ensure the benefits of the NBN are understood and councils are aware of the challenges associated with the rollout.

A consistent approach to dealing with NBN Co is being established. Formal support was demonstrated by resolved motions at the individual councils, a statement of common purpose across the 13 councils and members from all levels of government have written letters of support.

## Capable

Regions able to provide a skilled workforce to deliver a broad program of works will be well placed for priority rollout.

RDA has worked closely with the Local Employment Coordinator (LEC) for the Hunter and Central Coast, the Department of Education, Employment and Workplace Relations (DEEWR), the NSW Department of Education and Training, State Training Services, the Hunter Institute, Registered Training Organisations, Group Training Organisations and NBN Co to develop a coordinated 'NBN Ready' regional skills development strategy.

## Conclusion

The Hunter and Central Coast will benefit enormously from an early rollout of the NBN. The region meets the Federal Government's objective of a regionally focused rollout combined with a population density that would make it attractive to NBN Co. Its co-operative and capable approach makes the region an ideal candidate for early deployment.

**Its co-operative and capable approach makes the region an ideal candidate for early deployment.**

## 2 Regional Overview

The Hunter and Central Coast is the sixth largest regional centre in Australia with a combined population of 933,000. The region has a wealth of natural and man-made attributes and a diverse economy.

The region's location, advanced infrastructure, skilled workforce and lifestyle make it a viable business alternative to Sydney for many major industries. It is a major contributor to the NSW and Australian economies.

Over the coming 25 years it is predicted the Hunter's population will grow by 160,000, 66,000 new jobs will be created and 115,000 new dwellings constructed. Over the same period it is proposed that the Central Coast's population will grow by 80,000, 35,000 new jobs will be created and 36,000 new dwellings constructed.

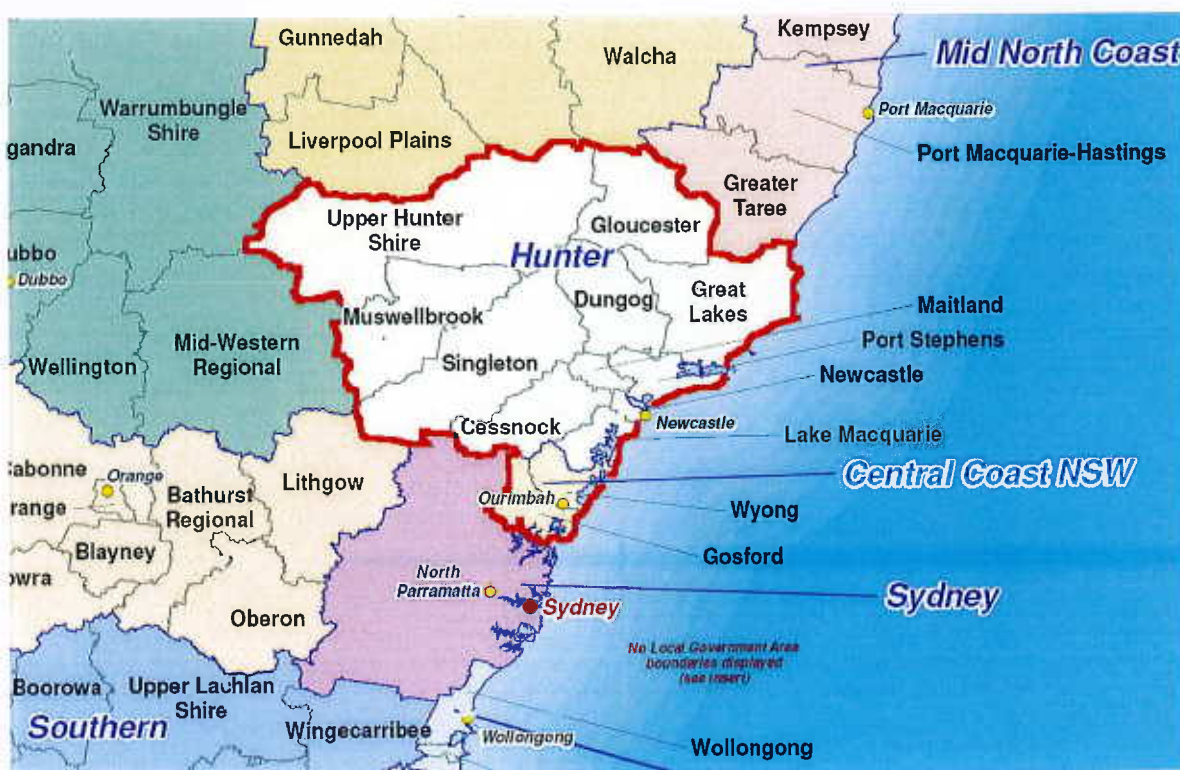


Figure 1 – The Hunter and Central Coast LGA regions

Key regional industries include coal mining, viticulture, wine production, agribusiness, equine, knowledge intensive engineering, education, defence, power generation, warehousing, logistics, manufacturing and tourism.

The Hunter is home to the world's largest coal export port. The region generates \$10.3 billion worth of coal trade annually, provides 33 per cent of Australia's aluminum production and generates 65 per cent of NSW's electricity.

Restructuring of the region's economy began in the 1990s. Although traditional industries continue to be major contributors, the local economy is now characterised by a diverse industry base.

The availability of labour is enhanced by good road, rail and public transport networks. The region has a progressive approach to industrial relations and disputes are minimal.

Data from the 2006 Census demonstrates an increasingly skilled workforce with the majority of employment growth in the knowledge-based industries.

The University of Newcastle and TAFE NSW – Hunter Institute work closely with the business community to develop customised courses to satisfy regional workplace needs. The education and training sector is a major employer in the region, accounting for almost ten per cent of the workforce.

## 2.1 Regional Benefits of Broadband

The region has enormous potential to benefit from improved communication infrastructure. Given its close proximity to Sydney, combined with excellent infrastructure, relatively low property prices and attractive lifestyle, access to super fast broadband would attract existing and emerging business.

## 2.2 Economic Benefits

The NBN takes geography out of the equation. Access to telecommuting, distance education, telehealth and online services have historically only been available to people living in major metropolitan areas. The NBN will mean some people will no longer have to live where they work. They will be able to choose where they live and use the network to participate in a digital economy. The Hunter Central Coast region is an attractive location for this population. This will also take pressure off Sydney by attracting people to regional Australia.

**Given its close proximity to Sydney, combined with excellent infrastructure, relatively low property prices and attractive lifestyle, access to super fast broadband would attract existing and emerging business.**

As a result of this population migration, the breadth and depth of the region's skill base will dramatically improve. This will enable innovation

and further economic diversification, allowing the region to move towards an economy less reliant on finite natural resources.

## 2.3 Educational Benefits

The University of Newcastle is a progressive institution recognised for research achievement, teaching innovation and access to higher education for disadvantaged groups. The university has campuses in Newcastle (Callaghan) and Ourimbah on the Central Coast.

Hunter TAFE is highly regarded for its quality training, strong links with industry, flexible learning modes and nationally accredited programs.

The university and TAFE have adequate communication infrastructure at primary campuses, but many satellite locations only have access to relatively expensive fixed-line services provided by

major telecommunication carriers. Students' access to broadband at home is varied. The NBN will greatly enhance the ability to gain network efficiencies and deliver consistency regardless of location.

It will also provide distance learning and e-learning opportunities that are only available to students studying at major metropolitan institutions.

## **2.4 Health Care Benefits**

Health care in the region is provided by Hunter New England Local Health Network and the Central Coast Local Health Network

Hunter New England Local Health Network is the only area health service covering a major population centre (Newcastle/Lake Macquarie), several large regional centres, smaller rural areas and remote communities. HNEAHS provides care to 840,000 people, covers a geographical area of more than 130,000 square kilometers across 32 LGAs, has 14,500 staff and provides health services to 12 per cent of the State's population and 20 per cent of the State's Aboriginal population.

The Central Coast Local Health Network extends from the Northern metropolitan boundary of Sydney to the southern boundary of the Hunter, with its administrative hub located at Gosford. The Central Coast has two large public hospitals with emergency departments, private hospitals and 21 aged-care facilities.

**Given the vast geographical area and number of patients serviced a fast broadband network would greatly improve health outcomes in the region.**

While there has been a concerted effort to improve inter-site communications via a rolling upgrade, many of the areas have poor access to broadband placing constraints on the ability to provide next generation tele-health and e-health solutions.

Given the vast geographical area and number of patients serviced a fast broadband network would greatly improve health outcomes in the region.

## **2.5 Research Benefits**

### **The University of Newcastle**

The University of Newcastle is ranked among Australia's top 10 universities for research. Areas of expertise include health, energy, the environment, science and engineering.

The university has partnered with HNEAHS and the community to form Australia's leading research institute, Hunter Medical Research Institute. The university also has research institutes for Organisational and Institutional Performance, Advanced Study for Humanity and ArtsHealth.

The university's business arm, Newcastle Innovation, produces \$12 million annually in intellectual property consulting and research income.

## **RDA Hunter and Central Coast – Submission for priority rollout of the National Broadband Network**

Researchers rely heavily on the internet to access information and online journals, and to communicate with colleagues. Access to super fast broadband, at home and work, will provide a level playing field when it comes to attracting researchers and funding.

### **Hunter Medical Research Institute**

Hunter Medical Research Institute (HMRI) was established in 1998 and is recognised internationally for its health and medical research, education and training. Improved communications via the NBN can only enhance the work undertaken by HMRI both regionally and internationally.

## **3 Co-operative Local Government**

### **3.1 Hunter Councils**

Hunter Councils is the representative body of the 11 LGA councils. It ensures strong communication between mayors, councillors and general managers and offers shared professional expertise via staff forums and inter-council collaborative projects.

Hunter Councils represents:

- Cessnock;
- Dungog;
- Gloucester;
- Great Lakes;
- Lake Macquarie;
- Maitland;
- Muswellbrook;
- Newcastle;
- Port Stephens;
- Singleton; and
- Upper Hunter.

Co-operation extends to the Central Coast LGA's of Gosford and Wyong due to their proximity and similar economic development objectives.

RDA and Hunter Councils facilitated a meeting between NBN Co and the 11 mayors and general managers on May 28, 2010. This was a clear demonstration of the region's ability to ensure cooperation during all phases of the network rollout.

### **3.2 Rollout Opportunities and Challenges**

The majority of the initial construction cost of the network will be in civil works. Given the scale and timeframes associated, it is envisioned these works will present challenges and opportunities for councils.

The volume of activity associated with the rollout is expected to have an impact on council workloads. It is vitally important that councils are provided with enough relevant information to allow them to facilitate the project.

### **3.3 Local Government Engagement**

RDA has been working with Hunter and Central Coast councils to ensure key people are abreast of the challenges and opportunities associated with the rollout and that appropriate protocols are identified and ready for implementation.

Councils have been provided with information on the need to give consideration to:

- Legislative Impacts;
- Administrative and resource pressures;
- Facilitating access to council owned and/or managed assets;
- Assisting subcontractors with the location of underground surfaces and other access paths;
- Providing necessary access (potentially on a fee-for-service basis) to Geospatial Information Systems (GIS);
- Network design liaison; and
- Restoration works - each council will need to provide guidance to NBN Co on restoration standards once the fibre pathways have been created.

**This was a clear demonstration of the region's ability to ensure cooperation during all phases of the network rollout.**

RDA is committed to assisting councils and helping develop protocols in the following areas:

- Identification of key staff;
- Key staff briefings;
- Understanding the impact of proposed changes to the Telecommunications Act;
- Review of aerial reticulation standards;
- Review and preliminary analysis of GIS;
- Review of planning processes to streamline NBN rollout;
- Preliminary analysis of council owned access pathways; and
- Identification of works that may be impacted or could assist the rollout.

### **3.4 Councilor Briefing Sessions**

Councillor briefing sessions were held to provide information about the challenges and advantages of the rollout. These included:

1. General Overview-
  - NBN Overview
  - Why Fibre
  - Why FTTH
2. Benefits-
  - Improved telecommunications
  - Business and community benefits
  - LGA benefits
  - Employment opportunities
3. Network rollout-
  - Cable vs wireless and satellite
  - Aerial vs underground
  - Legislative impacts
  - Community disruption
  - Indicative timelines

### **3.5 Formal Support from LGA's**

The 13 councils have formally expressed, or are in the process of expressing, support for the NBN via resolved councillor motions that state:

- Support for the rollout;
- Understanding of the benefits of the network;
- Acceptance of challenges; and
- Willingness to work with NBN Co to address issues in a timely fashion.

## 4 State and Federal Government

RDA has been working to ensure cooperation between Local, State and Federal government initiatives. This has included-

Federal:

- The Department of Broadband Communications and the Digital Economy;
- Department of Regional Australia, Regional Development and Local Government; and
- Department of Education Employment and Workplace Relations.

State:

- Department of Commerce;
- NSW Department of Education and Training;
- Industry and Investment NSW; and
- NSW NBN Taskforce.

### 4.1 MP Briefing Sessions

The region's State and Federal MPs have been given regular briefings on the NBN and the work being undertaken by RDA.

***See Appendix 1 for letters of support***

## 5 Training and Skills

### 5.1 NBN Potential Impact

Up to 25,000 jobs will be created nationally over the eight-year life of the NBN rollout. This includes up to 1000 in the Hunter Central Coast region.

The skills being developed will have application within the economy and the NBN will create a new set of skill requirements for the changed economy following the rollout.

The challenge is that the skilled workforce required is in short supply. It will also be highly sought after by a number of competing and complimentary large scale infrastructure projects and enterprises during the life of the rollout.

### 5.2 Capable

Regions able to provide the skilled workforce to deliver on a broad program of works will be well placed for early stage deployment. Work undertaken in the region has focused on the engagement of stakeholders and development of relationships with key players. These include:

- Councils;
- State training services;
- Hunter Institute and key Registered Training Organisations; and
- The Local Employment Coordinator and the region's Keep Australia Working Committee that are focused on the development and delivery of the Regional Employment Plan.

**Work undertaken in the region has focused on the engagement of stakeholders and development of relationships with key players.**

Potential business outcomes include:

- A larger percentage of rollout business being awarded to the region's companies because they have an available skilled workforce;
- Existing infrastructure and major projects not being in competition for skilled workers and an opportunity to benefit from a coordinated regional response;
- New entrants with the support required to achieve ongoing employment and skills via the NBN; and
- The opportunity to collaborate across regions, to ensure that Northern NSW is one of the first to be rolled out and is well prepared.

## 5.3 Stakeholder Engagement

RDA and State Training Services facilitated a workshop, with the support of the Hunter Institute and the Local Employment Coordinator, to provide an opportunity for key regional organisations to assist in the development of a plan to ensure the region meets the skills and workforce challenge.

### Objective

The objectives of the workshop were to;

- Identify the skills opportunities and challenges;
- Ensure key stakeholders have the required information to ensure the region is well placed to overcome challenges; and
- Create a framework to draft the Hunter and Central Coast NBN Skills Strategy.

The session was attended by more than 60 key regional stakeholders including representatives from industry, business, training bodies, Skills Councils, NBN Co and DEEWR.

**RDA and State Training Services facilitated a workshop, to assist in the development of a plan to ensure the region meets the skills and workforce challenge.**

The draft regional strategy and the need for a coordinated response was endorsed. It was decided there would be one point of contact for the region to ensure strong links with NBN Co, the principal contractor and Skills Councils.

## 5.4 Skills Shortage Analysis

DEEWR analyses skills shortages across Australia to identify current and emerging labour market issues relating to skills development and reasons why employers experience difficulty recruiting. In the most recent report there were many NBN-related roles identified as being in short supply.

State Training Services examine emerging skill gaps and training requirements for NSW and the Hunter and Central Coast. Regional skills shortages include telecommunications, civil construction, resources and infrastructure industry, electricity supply industry (generation sector), electro technology and transmission, distribution and rail sector.

## 5.5 Coordinated Approach

A coordinated 'NBN Ready' regional skills development plan is being established to:

- Provide relevant information on the skills packages that meet NBN Co's requirements;
- Identify potential workforce participants;
- Identify the up-skilling needs of existing workers;
- Link participants with State and Federal training initiatives;
- Provide the necessary training packages via local RTOs;
- Link participants with potential employers via local Employment Services Providers or private recruitment agencies; and
- Link the skills development process with the existing and emerging skills need of the region.

## 5.6 Skills Required

The level of qualification that is required to participate in the rollout of the NBN is being overseen by three separate Skills Councils.

1. IBSA - telecommunications and ICT.
2. EE-oZ – electrical.
3. SkillsDMC - resources and infrastructure.

**IBSA** has finalised its required training packages. These are less time consuming to attain as they generally do not require trade qualifications. The packages can be treated as stand alone qualifications for new entrants or as up-skill components for existing workers within the telecommunications and ICT industries.

Information can be found at:

<http://www.ibsa.org.au/training-packages/by-name/telecommunications-ict10.aspx>

**EE-oZ** is in the final stages of developing its training packages. These represent more of a challenge because participants will require a trade qualification. It is anticipated that these packages will be treated as stand alone trade qualifications for new entrants or as up-skill components for existing workers within the electrical trade.

Information can be found at:

<http://www.ee-oz.com.au/files/EBPPP/EE-Oz%20broadband%20brochure.pdf>

**SkillsDMC** is the national Industry Skills Council responsible for the development and continuous improvement of the resources and infrastructure national competency recognition system and training packages.

Information can be found at:

<http://www.skillsdmc.com.au/Training%20Packages/RII09%20Version%202.aspx>

## 5.7 Up-skill Existing Workers

Many of the 36 occupations required for the NBN rollout require high levels of qualification. Some of the roles, particularly within the electrical skills set, require trade qualifications.

Up-skilling existing trade qualified electricians via the appropriate NBN aligned training packages is a priority. Time constraints mean it is simply not feasible to train new participants to a trade qualified level to meet the demands of the NBN rollout.

It should be noted that the electrical trades are currently experiencing skills shortages across all industry sectors. Identifying existing trade qualified individuals that can be up-skilled will be a challenge.

**Up-skilling existing trade qualified electricians via the appropriate NBN aligned training packages is a priority.**

The working group will need to work closely with the power systems and cabling infrastructure providers (such as PowerServe and Conneq Infrastructure Services) to identify any workers to be up-skilled.

Australia has a large existing telecommunications workforce and many of these workers could be provided with NBN training packages.

## 5.8 Attract New Entrants

There will be a requirement for entry level roles within the NBN rollout. While it is difficult to determine exact numbers at this stage, a coordinated approach to ensure training, pre-employment/job ready skills and work experience options have been explored and are ready to be put in place.

## 5.9 Funding for Skills Development

### Critical Skills Fund

The Critical Skills Investment Fund provides \$200 million over four years for industry partnerships to undertake projects that provide training and employment opportunities in critical industry sectors.

The goal of the fund is to help increase the supply of skilled labour to target sectors. The Hunter and Central Coast NBN skills working group provided comment on the draft guidelines for the fund.

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The working group resolved to make an application to the fund and is working on the formation of a regional partnership led by RDA. It is envisioned that this application will involve three phases and address existing and emerging regional skills requirements. It will not only address the needs of the NBN, but also existing demand across industry sectors. The phases include:

1. Undertake analysis to develop a workforce plan;
2. Seek funding to up-skill existing workers to make them 'NBN Ready'; and
3. Seek funding to train new participants into areas experiencing critical shortages.

### **Existing Skill Funding**

A number of existing skills development support programs are available and the regional plan needs to maximise the benefits of these.

## **5.10 Training Delivery**

### **Local Capability**

The region is able to deliver all of the training packages identified by the IBSA, EE-OZ and SkillsDMC through:

- State Training Services;
- Registered Training Organisations;
- Group Training Organisations;
- Job Servicing Agencies; and
- Youth connection providers and partnership brokers.

### **Local Consortium**

The regional partnership needs to identify employers, who dependant on size, may need to co-invest in securing skills. There is an opportunity for local Registered Training Organisations to partner with each other and other stakeholders to deliver the necessary training.

### **The role of Secondary Institutions**

There is a need to engage additional trainees, apprentices and school-based apprentices to meet demand. In 2009 the Hunter Economic Development Corporation was granted \$2.9 million from the Federal Government to manage an Advanced Manufacturing Industry – Schools Pathway Project (ME Project). This initiative was designed in response to the skills shortage in advanced manufacturing and defence related industries.

Whilst the ME is targeted at the manufacturing industry, it provides an insight into targeting school students to overcome skills shortages.

**There is an opportunity for local Registered Training Organisations to partner with each other and other stakeholders to deliver the necessary training.**

Similar partnerships could be forged to deliver Vocational Education and Training (VET) packages and increase the number of school-based apprenticeships in required NBN areas.

## **5.11 Job Serving Agencies**

Job Services Australia providers connect people with a wide-range of government initiatives that deliver skills and training. The Hunter Central Coast has a number of providers and initial meetings have been held to identify opportunities and establish a coordinated approach for the NBN.

## **5.12 Emerging Skills Needs of the Region - The Regional Skills Strategy**

The Regional Skills Strategy aims to;

- Quantify the demand for skilled resources for the NBN rollout and other infrastructure projects;
- Ensure the supply of skilled resources is able to meet the demand in a sustainable manner;
- Identify relevant programs and qualifications;
- Identify appropriate training authorities and funding sources; and
- Deliver the appropriate training in line with industry standards ensuring safety, quality and continuous improvement.

A platform of initiatives has been created around these four objectives

## **5.13 Skill Strategy Objectives**

### **Objective 1- Region with skills required for NBN and broader regional requirements**

Strategies:

- Up-skilling of existing workers;
- Mapping requirements;
- Skills for new entrants;
- Rollout skills;
- Existing project and industry projected requirements;
- Develop collaboration and partnerships across industry and stakeholders;
- Secure critical skills support;
- Maximize use of existing programs; and
- Link Skills Councils.

### **Objective 2- Workforce development and pathways for new entrants**

Strategies:

## **RDA Hunter and Central Coast – Submission for priority rollout of the National Broadband Network**

- Establish links with employment services providers and recruitment agencies;
- Establish links with education partnership brokers and youth connection providers to engage school-based apprentices and trainees;
- Map expected demand;
- Work with departments and agencies to connect existing and emerging regional demand; and
- Identify and link options for creation of sustainable jobs and skills, including participation by disadvantaged groups.

### **Objective 3- Prepare for the new NBN economy**

#### Strategies:

- Identify pathways and skills requirements;
- Work with RTOs , GTOs and Employment Services Providers; and
- Work with business chambers, industry networks, ICN, AIG and Industry and Investment NSW to secure information about the new economy.

### **Objective 4- Coordination, communication and regional contact point**

#### Strategies:

- Develop a single main point of contact for NBN strategy within region;
- Ensure a good relationship with the principal contractor;
- Develop close communication and relationships with Skills Councils;
- Establish a working party to develop and oversee the regional strategy; and
- Maintain effective communication links with stakeholders.

## 6 Business and Stakeholder Engagement

### 6.1 RDA Engagement Process

Over the past year RDA has engaged business and industry in a series of briefing sessions. Organisations included:

- HunterNet (Hunter Engineering Cluster);
- Hunter Tech (Hunter Information Technology Cluster);
- Regional Development Australia Central Coast Committee;
- The Hunter Business Chamber;
- The Maitland Chamber of Commerce;
- The Gosford Chamber of Commerce;
- The Australian Industry Group;
- Hunter New England Health Services;
- The University of Newcastle;
- Hunter Medical Research Institute;
- Hunter TAFE; and
- Australian Telecommunications User Group – Hunter and Central Coast Chapter.

The purpose was to provide information about the NBN and highlight the many opportunities for local stakeholders and business.

### 6.2 Support from Industry Organisations

*See Appendix 1 for letters of support*

## 7 Power Supply and Transmission

Energy Australia's Transmission network for the Hunter and Central Coast region are broken up via aerial and terrestrial methods of supply. The total percentage of power supplied to customers in the Hunter and Central Coast region via aerial transmission is **82%** and **18%** via terrestrial. This high percentage of aerial transmission would make the roll out of the NBN fast and efficient.

Furthermore, the total percentage of length of conductor for the transmission of power to the Hunter and Central Coast region via aerial means is **72%** and terrestrial **28%**.

## 8 Smart Grid Smart City

Having won the Australian Government's Smart Grid, Smart City bid, EnergyAustralia is now working on the project that will keep Australia at the forefront of energy technology and lead to ground breaking changes to the country's energy industry.

Australia's first commercial-scale smart grid (Smart Grid, Smart City) will be based in Newcastle, New South Wales, in a demonstration project that will help lead to Australia-wide advances in energy management. Parts of the trial will also be conducted in Newington, Sydney's CBD, Ku-ring-gai and Scone.

This initiative will gather robust information about the costs and benefits of smart grids to inform future decisions by government, electricity providers, technology suppliers and consumers across Australia.

A smart grid is a new type of electricity network that uses advanced communication, sensing and metering that more efficiently manages electricity supply and demand.

Smart grids give households the ability to better manage their energy use by providing information about how much energy is being used and the estimated costs.

Smart Grid, Smart City will also trial distributed storage which can provide extra electricity to the power supply during peak periods.

### 8.1 What is a Smart Grid?

Smart grids provide instant information about the network to make it more efficient and help reduce interruptions, support more renewable energy and gives households greater control over their energy use.

There are numerous synergies between the National Broadband Network and Smart Grid Smart City including the opportunity to leverage off each other. Specifically these are:

- Building a new communications platform - EnergyAustralia has rolled out 800 kilometres of new fibre optic cables, installed hundreds of communications switches and deployed carrier-grade Internet Protocol (IP) technology to connect more than 200 key substations and depots. This telecommunications backbone is the foundation for a smart grid. It will provide many benefits including greater equipment monitoring and control, allowing better decision-making and earlier fault detection and repair.
- Installing smart monitoring devices to collect data - EnergyAustralia is rolling out 12,000 monitoring devices throughout its electricity distribution network. This data will allow EnergyAustralia to reduce outages through faster fault location and preventive maintenance and to work towards managing distributed energy sources such as solar and storage devices. The smart sensors will give EnergyAustralia an instant picture of the electricity network and how it is performing.
- Establishing back-end IT and business systems - New smart grid technologies require new back end systems and processes to be set up to convert the data into useful

## **RDA Hunter – Submission for priority roll-out of the National Broadband Network**

information for EnergyAustralia's planners and for households. New back-end systems and process are continually being designed make a smart grid a reality.

- Rolling out smart meters and time-based pricing. Smart meters will be the gateway for managing energy use and carbon in the home. More than 4,000 smart meters with communications have been installed and about 200,000 with first generation smart meters have time-of-use billing.
- Building a 4G wireless telecommunication network - This will allow crucial two-way communication with up to 2 million devices on the electricity grid. A smart grid needs a communications platform to bring all the real time data from substations and field devices back so IT systems can turn that data into useful information for planners, field staff and consumers.
- Rolling out smart sensors and analytical tools on the high voltage electricity network – This includes new smart equipment at zone substations and major transmission cables to allow better, more efficient management of power equipment and greater automation of the network.

## **8.2 Partnerships**

### **Working together to create a smart grid**

- University partnerships:

EnergyAustralia has committed up to \$10 million in research and development funding for smart grids at the University of Sydney and the University of Newcastle under a newly created Centre of Excellence in Intelligent Electricity Networks. This money has been used to establish academic research and setup new training facilities to develop future applications for smart grids that are complimentary to EnergyAustralia's vision. Some of the research projects that are being developed include distributed generation and energy storage modelling, self healing automation, advanced contingency planning and smart meter algorithms.

- Major industry partners:

In developing our smart grid, EnergyAustralia has created strong partnerships with major international vendors to prototype and research new technologies. In particular, EnergyAustralia has worked closely with General Electric, IBM and Alcatel-Lucent on our smart grid program, with each of these major companies supporting the university Centre of Excellence program.

## 9 NBN Telehealth Trial

### 9.1 Hunter New England – Digital Regions Initiative

The Hunter New England Area Health Service has been funded from 1<sup>st</sup> July 2010 for a Chronic Disease Management for Regional and Rural Communities project under round one of the Digital Regions Program. The Three year project is designed to:

- Implement a chronic disease management system that operates across communities,
- Disease groups and providers to standardize care and improve outcomes;
- Increase coverage of facility based telehealth services, and linking chronic disease sufferers in their homes to monitoring, educational and support services;
- Increase network capacity services to isolated sites; and
- Improve the reporting and delivery of medical imaging tests.

The \$11.87 million project (including \$4.95 million of funding from DBCDE) will provide a home telehealth service for up to 200 patients spread across the Hunter New England region over the three year term. The priority locations for the delivery of the telehealth services are for rural and smaller regional communities. Armidale is not identified as a priority location. The project has been designed to be delivered over narrowband data services will use a Telstra 3G wireless data service.

### 9.2 Objectives

The broad outcome of the trial is to provide health services to chronic disease patients in their homes in order to improve their health and reduce costs to the health system. The specific measurable objectives for the program include:

- Reduced number of presentations to hospital or Emergency Departments
- Reduced number of unplanned hospital or Emergency Department presentations
- Reduced travel times/transport costs for health specialists and workers
- Reduced number of patient visits to GPs and other health services
- Admissions to Residential Aged Care
- Quality of life for patients

Other qualitative objectives will include:

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- Acceptability to patients, families and clinicians
- Improved self-management and confidence by patients
- Reduced burden and cost to patients and their carers
- Integration and improvements to work practices by GPs and community health workers

## 10 Proposed Further Activities

### 10.1 Community Engagement

It is imperative that the community is well informed about the goals of the NBN and the benefits it will bring. RDA plans to develop a community engagement strategy to highlight the benefits of fast broadband and inform the community about what it can expect during the rollout in terms of disruption and rollout options.

Councils will be able to provide this information via existing communication channels including websites, newsletters, rates notice inserts and foyer displays.

**It is imperative that the community is well informed about the goals of the NBN and the benefits it will bring.**

#### Community Forums

As part of the community engagement strategy, RDA will conduct a series of community engagement forums to outline the benefits and challenges associated with the rollout, how NBN network architecture will look inside and outside buildings and provide details about indicative costs of migration and service plans.

These forums will be held in all 13 LGA's and it is anticipated that each region will be visited twice in a six-month period.

The forums will include-

General overview:

- NBN overview;
- Why fibre; and
- Why FTTH.

Benefits:

- Improved telecommunications;
- Increased competition;
- Tele-commuting;
- Tele-health;
- Government engagement at all levels;
- Distance education; and
- New services.

Network rollout:

- Cable vs wireless and satellite;
- Aerial vs underground;
- Community disruption; and
- Indicative timelines.

Customer premises:

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- Reticulation to the premise;
- Direct connect vs passing;
- ONT location;
- Gateway location; and
- Structured cabling.

#### Retail service provision:

- Multi play– FTA TV, Subscription TV, Telephony, Data, Smart Grids and other services;
- Potential for multiple retail service providers;
- Fault monitoring and rectification; and
- Indicative wholesale and retail costs.

The community will be informed about the forums by media coverage, notifications on websites, direct contact with community groups and through councils.

RDA believes this will allay any community apprehension about the rollout.

## 11 SME Engagement

The impact of the NBN on Small to Medium Enterprises (SMEs) needs to be clearly outlined as many business operators do not understand the benefits.

RDA has engaged the region's business community in order to highlight the benefits and challenges associated with high speed communications.

Benefits include:

- Increased ability to focus on core business;
- Decreased costs;
- Increased efficiency;
- Broader market reach;
- Collaboration;
- Innovation;
- Tele-communication;
- Utility computing- also known as cloud computing; and
- Device convergence leading to greater integration between devices and appliances.

Challenges and risks include:

- Other markets having a greater reach into the local economy;
- Competitors expanding market share because of early take-up;
- Compliance; and
- Security.

**RDA has engaged the region's business community in order to highlight the benefits and challenges associated with high speed communications.**

RDA proposes that an NBN SME Engagement Project be initiated to engage regional peak bodies, industry associations, business chambers and SMEs. This would include briefings, workshops and demonstrations. An information handbook would be useful in other regions across Australia once completed.

## **12 References**

Hunter Investment Prospectus 2010

Central Coast Investment Prospectus 2009 - 2010

Hunter TAFE National Broadband Prospectus

Submission to Regional Telecommunications Review Hunter Region 2007

Hunter Medical Research Institute Website

University of Newcastle 2009 Profile

Broadband Use in the Higher Education Sector

## 13 Appendix 1

Letters of Support from MPs and government agencies



**An Australian Government Initiative**



**A NSW Government Initiative**