WRITTEN EVIDENCE FROM ABERDEEN CITY AND SHIRE ECONOMIC FUTURE

1   Background and Strategic Context

This paper presents the views of Aberdeenshire and Aberdeen City Councils on the strategic need for broadband infrastructure development and the economic and social implications of this investment. This evidence is based on the **Regional Broadband Plan** developed for the Councils by **Aberdeen City and Shire Economic Future (ACSEF).** Aberdeen City and Shire Economic Future (ACSEF) is a partnership of private and public sector representatives who are committed to managing strategic economic development issues for the benefit of the area and its people.

The evidence that broadband infrastructure in the North East of Scotland urgently requires upgrading is overwhelming. There is extensive lobbying from local businesses stating that the speed and quality of service available to them is constraining growth, efficiency and employment. Citizens are being impacted by difficulties in accessing community services, their ability to work in a flexible manner and the resulting impact on social cohesion. OFCOM's 2011 data demonstrates that Aberdeen City and Aberdeenshire have the highest rates of broadband take up in the UK (74% and 72% respectively) where there is NO availability of superfast broadband.

The Economic Action Plan for Aberdeen City and Shire outlines the actions we will take to achieve our vision for 2030 which aims to ensure a high quality of life, and sustainable economic growth. ACSEF has a strong track record of partnership working and delivery and has a significant profile in both the regional and national media.

In summer 2011 ACSEF undertook an infrastructure audit which informed a strategic overview of the work required to identify opportunities and develop infrastructure based on NGA (Next Generation Access) communications technologies to support and accelerate economic growth, enhance social cohesion, promote educational attainment and improve the capacity of public agencies to deliver services cost effectively.

Aberdeenshire accounts for some 8% of Scotland's land area at 2437 square miles and around 4.7% of its people – this is reflected in low population densities in some areas. The area's GVA per head of population was 38% above the Scottish average in 2006 - this varied from 88% above the average in the City to 6% below the average in Aberdeenshire. There are large commuter flows into the city with an estimated 50,000 people travelling daily into Aberdeen for employment.

ACSEF's agenda includes anchoring the oil and gas industry to the area, developing employment in the renewable and wider energy related markets and developing the Energetica corridor between Aberdeen and Peterhead into a world class location for living and working.

Technology developments have seen employment grow in knowledge and intellectual property based firms, many of which trade in global markets and for whom robust, secure and high speed broadband links are vital.

The area's geographical remoteness from its markets within the UK and Europe means higher transport costs for the substantial cluster of traditional industries involved in food and drink production, timber processing and paper making- high speed broadband links would help offset some of this competitive disadvantage.

Additionally, there are the justifiably high aspirations of the wider business and resident communities to be met, driven by factors including a higher than average proportion of graduate jobs, a significant cluster of academic, research and learning institutions and in the Energetica project area, an ambitious development and lifestyle proposition between Aberdeen & Peterhead for which world class broadband provision is a given. Aberdeen City and Shire is home to an increasing number of IP and knowledge based businesses, many of

which trade in global markets – high speed and reliable broadband connections are vital to their businesses for data transfer.

2   The Case for Broadband Investment

Across the City and Shire the provision of broadband infrastructure is inadequate. In urban areas the majority of business and residential users are limited to ADSL services. However the exchange infrastructure requires significant investment. The overwhelming majority of users are supported with a maximum bit rate no greater than 7.15Mbps and in practise often receive much less due to contention and distance from exchange. As a result, both business and residential users are constrained in their ability to use the internet for both economic and social applications. Also many large businesses seeking to locate in the region in major business parks and development corridors require access to world class superfast digital infrastructure to enable them to compete and trade on an international basis. This is lacking in many parts of the region. In addition, BT has very limited plans for exchange upgrades in the area or the deployment of FTTC/FTTP (Fibre To The Cabinet/Fibre To the Premises).

Rural Aberdeenshire is characterised by having a low density of population across a wide geographic area. As a result, market forces are not delivering acceptable broadband connectivity to the rural region. Many of the population live too far from an exchange to get access to effective broadband services or indeed any service at all and the low population densities in much of the region mean then next generation mobile services cannot be commercially deployed.

As a result Aberdeen City and Shire has three challenges to address in order to improve digital connectivity:

- Ensuring that businesses and residential customers in the City have access to a competitive market for broadband services which will, in turn drive enhanced connection speeds, improve customer service and support and enhance reliability

- Provide major business users and development areas in the region with access to world class digital infrastructure that will drive inward investment, increase the competitiveness of businesses in the region and create employment

- Ensure that the rural areas have ubiquitous access to broadband connectivity at a guaranteed speed and performance to meet the economic and social needs of the communities.

3   Proposed Solution

In order to address these needs three potential projects have been identified in as part of the broadband development plan for the region;

- Build an **open access fibre access network** adjacent to the route of a future peripheral road around the City. This will connect residents and the key business parks in areas such as Westhill and Dyce. There is also potential to expand the coverage of the three areas of strategic development defined by the Aberdeen City and Shire Structure plan namely, the Energetica corridor north to Peterhead, along the A96 to Inverurie and south to Stonhehaven and Laurencekirk. This will also bring superfast (greater than 24Mbps) and ultrafast (greater than100Mbps) broadband to some rural communities

- **Develop and implement a rural access strategy** to ensure that there is 100% availability of broadband services and access speeds in the rural areas are significantly increased. This will be achieved through a blend of exchange upgrades, deployment of next generation wireless and satellite technologies and the utilisation of the Aberdeenshire Council network currently serving Aberdeenshire sites and schools.

- Enhance competition and improved service provision in the **City by encouraging and driving the deployment of next generation wireless technology**. The City will use its existing property portfolio as an incentive for wireless operators to deploy base stations across the City.

4 Existing Infrastructure in Region

Aberdeen City has one of the highest rates of broadband uptake in the UK and a consequence of this is that the infrastructure is routinely overloaded resulting in much lower connection speeds than advertised and which consumers believe they are paying for.

In March 2010 the Aberdeen City and Shire Structure Plan baseline monitoring report highlighted that out of the 103 telephone exchanges in Aberdeen City and Shire only 5 can operate at speeds up to 24 Mbps, while no 'fibre to the cabinet' (fibre between the exchange and the street cabinet) or 'fibre to the premises' (fibre all the way to the end user premises) has been deployed to date.

Some parts of Aberdeenshire do not have access to broadband connections and whilst a number of factors are involved, consumers located more than 3 miles from an exchange are the largest group of those unable to access broadband.

The existing telecommunications infrastructure within Aberdeen City and Shire is largely restricted to legacy BT copper (and in some cases aluminium) based services. Most businesses within the area use ADSL services which for many lack the speed and reliability required to maintain competitiveness. Typical download speeds are significantly less than 7 Mbps and upload speeds less than 1 Mbps. Companies requiring higher speed connectivity in the region must procure LAN Extension services or pay for dedicated leased line service connectivity at high connection and rental rates.

For the majority of businesses, connectivity costs for high speed broadband are prohibitive and many are constrained in their growth plans.
Full maps of the existing infrastructure are available on request. However on a street by street analysis of the area it is clear that;

- the **City centre** has extensive fibre infrastructure owned by BT, SSE Telecom and C&W. Hence from a state aid perspective the market is effectively 'Black'. However there needs to be extensive work with the operators to upgrade exchanges and drive greater commercial use of the existing fibre infrastructure that exists

- **City periphery and development corridors** are constrained by the absence of affordable high speed broadband services. This is an area with very limited operator presence and demonstrable market failure. This area that is prima facie black is, once investigated, proven to be largely white with some areas of grey

- **Rural:** A 'white' area with major connectivity issues to address.

5 Demographic profile
The population of Aberdeen City is approx **215,000** of which 93% live in the central urban area, 5% in suburban towns and 2% in accessible rural areas.

Aberdeenshire has a population of 244,000. 62,000 live in towns with a population greater than 10,000 people, 23,000 live in towns with 5,000-10,000 people. The remaining population (159,000), live in rural locations with 39,000 of these in remote rural locations.

The table below presents an analysis of the number of businesses by sector and size. *Over 74% of businesses in the City and 90% in Aberdeenshire have less than 10 staff.*

Size band (no of staff)	Aberdeen City	Aberdeenshire
0 – 4	5,995	10,665
5 – 9	1,390	1,460
10 – 14	630	465
15 – 49	1,015	660
50 plus	480	210
Total	**9475**	**13,445**

A final demographic trend to note is density. Across the area the average density of population is *37 per square km*. 15% of the population live in areas of **12 per square km covering 47% of the region.**

Aberdeen City and Shire has used this population profile and distribution to plan its technical deployment options.

If we look at the **rural** areas it is clear that a variety of technologies will need to be used as follows:

- **Exchange upgrades:** This will be feasible to serve the populations in the small and medium sized towns within proximity of an exchange. However this is only a third of the rural population
- **Satellite:** This will be used to serve the very remote rural populations
- **Next generation wireless:** This will only be commercially deployed where population densities are greater than 65 per square km. This rules out much of the Shire. However it may be used in the small and medium towns given suitable backhaul and sites
- **Utilisation of public network infrastructure:** Aberdeenshire is deploying an extensive radio network across the Shire to serve schools and its corporate offices. This could be upgraded and transformed into an open access network to serve the needs of the community as a whole.

Hence we have a blend of technical strategies to serve the rural community.

If we examine the demographics of the City and its peripheral region we find that much of the business growth lies adjacent to the line of the **peripheral road** and in key rural development corridors. This area is not well served by next generation fibre infrastructure. The map below presents a proposed network map for the deployment of an open access fibre network. This is likely to be a partnership between Aberdeen City & Shire and private industry and would complement the proposed road building programme.

An analysis of business locations reveals that:
- 40% of large businesses (greater than100 staff) and 20% of SMEs in the City and Shire sit in the proximity of the footprint of this network (access will be provided by FTTP and wireless)

- If the network were to be extended to the development corridors to Peterhead, Inverurie and Stonehaven, the network would serve 50% of large sites and 33% of SMEs in the region.

Other businesses in the area are located in the city centre or in the large rural towns.
Hence the area would have access to largely future proofed world class next generation telecommunications infrastructure that will drive economic growth and enhance social cohesion.

6   User Requirements and Demand Stimulation

Our market testing has shown a deep pool of untapped demand for faster broadband connections among the area's business base.
We recognise that driving up demand and encouraging businesses to exploit the superfast broadband services will require some additional assistance. We have developed business support programmes to sit alongside the physical infrastructure element of our plans.
We will assist SMEs to take advantage of the superfast broadband through a mix of:
- One to one support, advising senior business decision-makers and entrepreneurs on implementing digital strategies on distribution, marketing, design and production.
- Seminars and workshops from digital leaders to share best practice and showcase new products and processes which can enhance business growth
- Web based support offering basic 'how to' guides and sign-posting to industry resources
- Remote advice on practical support matters during the implementation phase

Our goal is to drive up adoption levels and to ensure those businesses which invest in superfast broadband can maximise their exploitation of the new technology and increase the returns on their investment.
Other initiatives that are taking place in parallel include:
- Work Smart: A major initiative in Aberdeenshire Council to encourage flexible and home working utilising broadband and mobile technologies
- Extensive investment in education and learning centres for consumers in the use of IT and telecoms services
- A range of community led initiatives (supported by the Leader programme) to drive broadband access and usage in rural communities. To date four of these projects have been successfully deployed.
- Partnership with the University of Aberdeen in the dot.rural project

In May 2011 Aberdeen City and Shire undertook an extensive programme of market research in collaboration with The Federation of Small Businesses and the Aberdeen and Grampian Chamber of Commerce (AGCC) A total of 208 companies were interviewed in order to explore their current and future broadband connectivity requirements, applications, and importance of broadband connectivity on their business growth and performance. Some examples of the key findings are shown here:
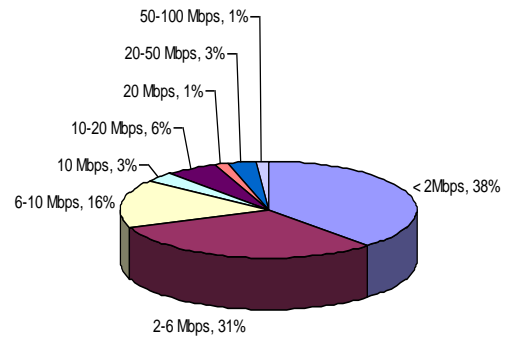
a) Speeds currently obtained

Typical downloads speeds are less than 7 Mbps as shown in the following survey results. The pie chart presents the results from AGCC members with the bar chart presenting results from the Federation of Small Businesses.

3. What connection speed do you currently actually typically receive?

	Response Percent	Response Count
Up to 2 Mbps	40.7%	37
2 - 6 Mbps	39.6%	36
6 - 10 Mbps	11.0%	10
10 Mbps	2.2%	2
10 - 20 Mbps	2.2%	2
20 Mbps	0.0%	0
20 - 50 Mbps	3.3%	3
50 - 100 Mbps	1.1%	1
answered question		91
skipped question		41

Speeds obtained

- 50-100 Mbps, 1%
- 20-50 Mbps, 3%
- 20 Mbps, 1%
- 10-20 Mbps, 6%
- 10 Mbps, 3%
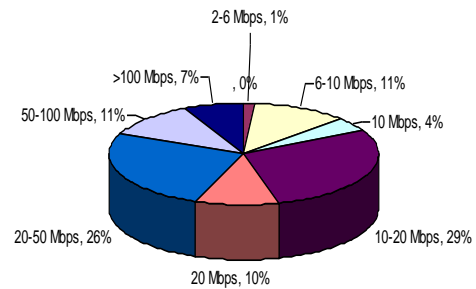- 6-10 Mbps, 16%
- < 2Mbps, 38%
- 2-6 Mbps, 31%

b) Future requirements

Businesses in the area typically require 10-50 Mbps to undertake the range of applications required for their business. There was a clear future requirement for applications such as collaborative working, video content and social networking which could not be addressed under existing service provision. 5-7% of businesses required 100 Mbps connections within the next 3 years.

8. What is the ideal broadband speed you require to undertake these applications over the next 3 years?

	Response Percent	Response Count
Up to 2 Mbps	0.0%	0
2 - 6 Mbps	5.4%	5
6 - 10 Mbps	16.3%	15
10 Mbps	12.0%	11
10 - 20 Mbps	25.0%	23
20 Mbps	15.2%	14
20 - 50 Mbps	16.3%	15
50 - 100 Mbps	4.3%	4
> 100 Mbps	5.4%	5
answered question		92
skipped question		40

Speed required

- 2-6 Mbps, 1%
- >100 Mbps, 7%
- , 0%
- 6-10 Mbps, 11%
- 50-100 Mbps, 11%
- 10 Mbps, 4%
- 20-50 Mbps, 26%
- 10-20 Mbps, 29%
- 20 Mbps, 10%

c) Impact on businesses

Greater speeds were viewed as critical for businesses to compete effectively in the future and a lack of reliable high speed broadband was seen as putting their business at risk.

12. "A higher speed connection is critical to our future business"

		Response Percent	Response Count
Strongly Disagree		1.0%	
Disagree		2.0%	
Neutral		28.3%	
Agree		38.4%	
Strongly Agree		32.3%	
		answered question	
		skipped question	

High speed connection is critical for business

Strongly disagree, 0%
Disagree, 8%
Neutral, 7%
Strongly agree, 49%
Agree, 34%
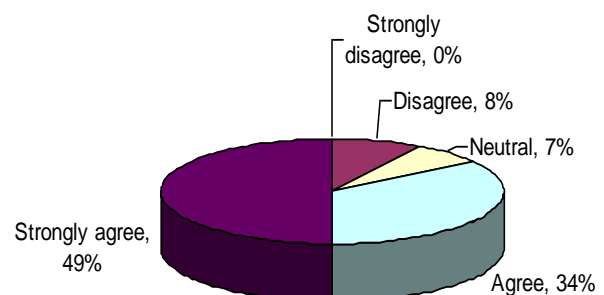
7 Stakeholders and Market Engagen

The projects in the evidence have the full backing of Aberdeen City Council and Aberdeenshire Council. In addition a number of local stakeholders have been active participants in the work to date and support the initiative. This includes the local Chamber of Commerce and the Federation of Small Businesses.

As the projects commence, they will be co-ordinated with other planned works. In particular:
- the planning of the Aberdeenshire corporate and schools network is being undertaken with a view to ensure it will be fit for purpose to provide a platform for serving the wider community in the future
- telecommunications infrastructure plans will be factored into planned highways works including the Aberdeen Western Peripheral Road
- the Aberdeen City and Shire Strategic Development Planning Authority is working closely on the plans and has ensured that the Strategic Plan and both Local Plans take account of the need for enhanced digital connectivity in the area.
- Discussions have taken place with Angus and Moray Councils and the Cairngorms National Park Authority on the potential to develop cohesive areas based on geographical or infrastructure considerations to generate economies of scale to agreed solutions. This grouping may be expanded.

As part of the development of this plan, initial discussions have been held with local and national infrastructure and service providers in order to collate information on any existing infrastructure in the area along with plans and their perceptions of the market.

As we move towards the procurement phase, an industry day will be held to which all potential providers and vendors will be invited.

This will be followed by a series of formal procurement programmes for the respective projects.

8 Expected Strategic Benefits

a) Next Generation Access Fibre Network

Our proposed investment in superfast broadband will support a wide set of impacts and outcomes in the social and environmental sphere. The main benefit of the proposed fibre network is focussed on the economic impact it will generate through growth in turnover, employment and profitability among the growing base of businesses in the key development

areas in the City and Shire. We will model the tangible growth of economic output (GVA) and jobs, based on research undertaken of fibre investments elsewhere.

b)   Rural Network

The rural network will also deliver economic benefits in terms of employment and growth in the area. In addition we expect significant social benefits arising from:
- Improved social inclusion and enhanced perception of the area as a place to live and work
- Improved access to public services including education learning & leisure, social care (eg housing, community care, children and families & criminal justice)
- Reduced cost of public service delivery (eg enhanced staff flexibility, reduction of number of public sector offices etc).

A regular 'value for money ' exercise will be conducted to collate and quantify such benefits and savings, an exercise similar in nature to the recent Pathfinder audit.

c) City Wireless Network

The City Wireless network will deliver:
- Cost savings in the delivery of public services
- Improved social inclusion and perception of the area as a place to live and work
- Improved access to public services including education learning & leisure, social care (eg housing, community care, children and families & criminal justice)
- A wider choice of broadband connectivity services in the City which will help to address the issues of low access speeds and contention
- A platform for businesses to develop mobile applications (eg a local firm is already trialling an innovative portal providing business and travel information to visitors to the City)

9   Implications for The Scottish Government

a) The best way to roll out NGB in Scotland

Projects in England are largely being driven at a local authority or regional level. In contrast Wales has adopted a national procurement approach. In Scotland we have a situation where market forces are addressing much of the needs of the densely populated parts of the central belt and projects are advanced in their planning in Highland & Islands , South of Scotland & Aberdeen City and Shire. It is our view that Scotland would be best served by;
- Supporting the current projects with BDUK and ERDF funds
- Providing financial, technical, legal and operational support to those authorities who are less advanced in their plans.

We believe that this is a better approach than running a single pan-Scotland procurement for NGN infrastructure. The reasons for this are as follows:

- Scotland is not an homogenous market and the requirements of business versus consumer and urban versus rural will differ. For example our work in Aberdeen City and Shire reveals that business and consumers in the rural Shire require access to download speeds of the order 20-50Mbps which could be delivered by a blend of FTTC in rural exchanges supplemented by upgrades to existing public sector network infrastructure and next generation wireless. In contrast businesses in key strategic growth areas and business parks require greater speeds (typically up to 100Mps symmetrical) which are best delivered by FTTP deployment in selected locations. Addressing these wide requirements in a single national procurement is challenging
- Scotland would benefit from having a strong competitive telecoms market with a range of infrastructure and service providers. This would drive competition, stimulate innovation and lower prices

- Rural broadband is perhaps best suited by a gap funding approach whereas open access fibre projects in key areas of strategic growth may be served by the public and private sector working together in a Special Purpose Vehicle (SPV).

b) Using Existing Infrastructure

It will not be economic to upgrade all of the rural exchanges in Scotland. Highlands & Islands, Aberdeenshire and South of Scotland all plan to upgrade the required subset of exchanges to service say 75% of the rural population. The rest of the population needs to be reached through use of satellite or harnessing the existing public sector networks which often reach into remote settlements to serve schools, health and other public sector sites. These public sector networks could potentially be upgraded and used to provide an open access network to remote rural locations. There are challenges in this which should not be underestimated. These include:

- Legal issues: Can the public sector networks be legally used to provide commercial services? On what basis were they originally funded? On what basis were contracts awarded? A number of authorities across the country have faced challenges and legal issues in this area
- Do the public sector bodies actually own the infrastructure or is it merely procuring a managed service (eg Pathfinder)?
- Contractual issues – length, terms of use etc
- Technological constraints on the existing public sector networks, ie back-haul capacity, access capacity, ability to upgrade to an open access infrastructure etc

Certainly we would strongly agree that at a service level the public sector should be seeking to aggregate demand and be an anchor tenant on any next generation broadband infrastructure deployed. The key issue will be aggregating the technical and commercial requirements of the public sector. Each will have different technical requirements, security needs, service level requirements etc. In addition there are problems of existing contractual relationships. Aggregating public sector demand has been challenging. There have been successes but these have been where there has been strong political and executive leadership and the number of networks and bodies to be aggregated is small and in a geographically defined area.

c) Funding Next Generation Broadband

We believe that a second reason for segmenting the Scottish market into a series of lots or regional projects is funding.

A distinction needs to be made between;
- Providing next generation broadband connectivity across Scotland at a minimum speed of say, 30 Mps (the speed target identified by the EC), by 2020 with significant progress by 2015
- Providing ultrafast broadband services at speeds from 100 Mps to 1 Gbps to business users in key locations. This will provide Scotland with locations with a world class digital infrastructure. This will drive economic investment, employment and attract knowledge based industries.

These are two different but complementary goals. We believe that Scotland needs to drive BOTH in formulating its strategy for NGB.

a) Funding Rural Networks

Provision of basic broadband connectivity in rural areas is clearly the focus for the BDUK funds and is one where larger incumbent operators (eg BT, C&W) are likely to provide match funding. Other carriers and service providers are finding it more challenging to justify matching investment in rural areas – although much depends on how challenging the requirements specification is. The delivery of a superfast broadband to all users in

Aberdeenshire is a very expensive undertaking. Other rural authorities, such as Cumbria and Scottish Borders have estimated costs up to £100m to deliver superfast broadband. The exact figure will not be known until a detailed technical survey is undertaken of every exchange together with a technical plan of the number and locations of every street cabinet.

Other local authorities considering this approach have partnered with infrastructure providers to deliver as wide a coverage of superfast services as possible related to the size of the grant received from BDUK and the authorities' fund. In Northern Ireland for example, they have aimed to get superfast broadband services to at least 75% of the rural population with the most remote regions receiving lower speeds via satellite or other technologies. To provide a similar level of coverage in Aberdeenshire would cost approximately £50 - £60million with Aberdeenshire Council expected to contribute gap funding of 25% of the total costs, approximately £12.5m to £15m if the BDUK funding model used in England were to be applied, in which case we would expect 25% would come from the Scottish Government and 50% from private industry.

b) *Funding Ultrafast Open Access Fibre Network*

The provision of superfast next generation broadband services to key areas of strategic growth can be a compelling case and will attract a wider range of private sector interest. This will include wholesale carriers such as Geo and SSE as well as leading telecommunications solution suppliers. Such projects are typically funded by ERDF and matched by the private sector. An example is the proposed Aberdeen City and Shire peripheral network serving the main business centres around Aberdeen (eg Westhill, Dyce) and along the main strategic growth areas to Peterhead, Inverurie and Stonehaven. An example of a successful project of this nature already operational is FibreSpeed in North Wales.

The capital expenditure of the open access fibre network in Aberdeen City and Shire has been estimated to cost up to £15million. The study has confirmed that there is an underutilised (and non BT owned) optic cable running along the length of the A90, along the A98 and along the A96 between Aberdeen and Huntly. Ideally the project would seek to partner with a wholesale service provider, by means of a special purpose vehicle. This SPV will in turn sell services to operators and internet service providers which may range from national players to innovative local companies. These service providers will sell services to the end consumer and business market in the region.

A new fibre optic cable should be laid adjacent to the (Aberdeen Western Peripheral Route) AWPR to cover Westhill, Kingswells and Dyce, which are all poorly served at present supplemented by local fibre and wireless access within the key business parks. It is assumed that 50% of the cost would be funded by the private sector and 25% from The Scottish Government (using BDUK (Broadband Development UK) funds and ERDF (European Regional Development Fund)). The final 25% would come from Aberdeenshire and Aberdeen City Council.

c) *Funding City Wireless network*

The deployment of next generation wireless could be achieved through a straightforward contractual arrangement between Aberdeen City Council and a network operator to deliver a service on a commercial basis with the city. The City Council may wish to consider within this the value of access to public service buildings and other infrastructure within this either becoming a chargeable fee or a commitment to delivery in return for ongoing revenue. The cost of this deployment should therefore be cost neutral to The City Council.

d) *Authority commitment*

Aberdeen City Council has secured approval to submit a bid of up to £2million of capital funding from the Council's 2012/013 capital programme towards the implementation of Digital Network Development within the City (along the route of the AWPR/Energetica Corridor) and within the Aberdeen City core area.

On 10th November 2011 Aberdeenshire Council Policy and Resources Committee approved funding of up to £18m, over a period of 4 years commencing 2012/2013 towards the cost of implementation of the rural access strategy and their share (together with Aberdeen City Council) of implementing the open access fibre network.

e) Commercial Model

Uneconomic rural networks are best addressed via a gap funding model.

Superfast, business centric networks may be a SPV between the public sector and industry. The SPV could own:
- Trenches and sub-ducts along highways and roads up to the boundaries of customer sites
- Fibre infrastructure
- Network management and billing systems
- Layer 2 electronics

The public sector could own the passive infrastructure (ie ducts and fibres) and operating partner undertakes all operations and owns layer 2 equipment. This is the preferred option of major equipment vendors. Here the risk of the capital build and ownership lies exclusively with the public sector with the private sector partner bearing the operational costs.

Alternatively the public and private sector partner share ownership and risks across the passive and active infrastructure. Utility partners and wholesale operators are more comfortable with such an approach as their mission is the ownership of core infrastructure. Under this scenario all risks are shared by the shareholders of the SPV.

In the long term there is potential to sell the SPV or renegotiate the ownership structure.

f) Risks

These are:
- State aid: This is a challenging task. Market failure has to be proved along with a clear commitment to an open access architecture that will drive competition in the market. The process is lengthy and rigorous and evidence has to be collated at a very granular level.
- Attracting private sector funding: The industry has many such projects to tender for and operators and solutions providers are now being selective where they bid. There has to be a clear vision and a strong commercial case to justify private sector investment. We believe that Scotland would attract a wider number of private sector companies and capital by having a number of standalone attractive projects rather than a single national procurement
- Timescales: There is a very high risk that Scotland is falling behind England and Wales in the deployment of next generation broadband infrastructure. Further delays in developing a clear strategic plan and allocating funds are likely to lead to a loss of competitiveness, increased costs and Scotland being a lower priority for private sector investment
- Complexity: The broader the goals, scope, coverage and service requirements of a procurement, the more lengthy and complex it will be
- Harnessing demand; See above for the challenges of public sector aggregation. However the need for a public sector anchor tenant on any project is key
- Clear standards; The Public Sector Network in Scotland will clearly be a 'network of networks' and clear policies need to be made, particularly in areas such as security
- Support for local authorities; Local authorities urgently need clear guidance from The Scottish Government in areas such as funding policy, state aid applications and possibly procurement

6) Conclusions

In summary the key messages to The Scottish Government are:

- Do not simply focus on providing 'me too' broadband services. It is essential to ensure that Scotland has a number of genuinely world class innovative projects (eg Aberdeen peripheral network) which showcase the region, drive economic growth, and act as a world class test bed.
- Scotland is not an homogenous market and projects should be driven at a regional/local basis to ensure that:
  - The existing projects identified by Highlands & islands, South of Scotland and Aberdeen City and Shire are not delayed
  - Local needs and requirements are addressed
  - There is greater potential to harness local public sector infrastructure in line with the McClellan report
  - The legal and commercial complexities are minimised
- Scotland will attract a greater diversity of operators (and funds) by funding local/regional projects
- Do not underestimate the complexity of seeking to aggregate public sector demand. Different goals, budgets, legacy infrastructure & contracts, security needs and politics all make this a challenge. Public sector bodies generally procure advanced managed services which do not always lend themselves easily to unbundling at a wholesale level.
- Use public sector contracts as an anchor tenant wherever possible
- **Timing is key and Scotland is falling behind other parts of the UK (and Europe). Ensure any plan can be quickly implemented ie agree basis for distribution of funds in Winter 2011/12 and run procurements in 2012.**