

Digital Innovation and Efficiency Committee

Item No.

Report title:	Local Full Fibre Network Bid
Date of meeting:	14th November 2017
Responsible Chief Officer:	Tom McCabe – Executive Director, Community and Environmental Services, Simon George – Executive Director, Finance and Commercial Services
Strategic impact Building upon the successful Better Broadband for Norfolk Programme, Norfolk County Council has been developing proposals to bid for new funding from the Department for Digital, Culture, Media & Sport (DCMS). This funding would enable further deployment of “Full” Fibre Optic Cabling all across the county to upgrade Public Sector buildings to Gigabit (1000Mbps) speeds.	

Executive summary

This report is intended to inform the Committee of progress being made by Norfolk County Council on behalf of the County of Norfolk to seek DCMS Local Full Fibre Network Programme funding. Our original expression of interest was submitted late last year following the committee’s approval to do so and to develop and apply with the full proposal when ready.

The proposal has been developed in conjunction with all Norfolk districts, boroughs, Norwich city, the chamber of commerce, the LEP and other relevant regional groups and bodies. The DCMS LFFN team, the barrier busting and 5G teams have been consulted along with district economic development and planning officers.

In September 2018 NCC submitted a bid for £18-20 Million to upgrade public sector sites across the length and breadth of the county. The benefit of this approach is that it would take fibre optic cabling out into all areas of the county where public sector buildings and surrounding businesses appear to be aligned with the DCMS LFFN programme’s funding criteria. As well as upgrading public sector capacity (at no cost to Norfolk public sector) a successful bid would also have the benefit of enabling local businesses and residences to access ultrafast fibre circuits.

This investment could also be used in conjunction with the LFFN Gigabit voucher scheme which provides grants of up to £3000 pounds to individual businesses that wish to upgrade their broadband connections to Ultrafast speeds. Note that a smaller grant can also be provided to residential properties and multiple applications can be combined.

The LFFN Gigabit voucher scheme is already available and is being accessed by some Norfolk Businesses, but take-up would be much increased if fibre was available in nearby public-sector buildings as this would significantly lower the initial connection cost.

The bid has to proceed through a number of stages and so far, we have gone through the first two. The phase we have just been through is known as the “revolving door” which we were one of the very few authorities to proceed straight through. We have now been allocated a member of the DCMS team to work with us on preparing our proposals to go in front of their investment board.

If the bid is ultimately successful, DCMS would fund the capital for the engineering works but NCC would need to fund the staff time and any consultancy costs required to manage the project in much the same way that we have for Better Broadband for Norfolk superfast programme.

Recommendations:

- 1. To continue to develop the bid with DCMS and keep all Norfolk partners informed of progress.**
- 2. To delegate authority to commit necessary bid development and project management resources to the Head of Information Management & Technology in consultation with the Chair and Deputy Chair of the Digital Innovation and Efficiency Committee.**

1. The Background and Context

- 1.1. To help provide the fastest and most reliable broadband available, Government will invest £200m in locally-led projects across the UK. Starting in late 2017 the Local Full Fibre Networks (LFFN) programme has invited bids into a Challenge Fund from local bodies who can leverage local investment and activity to stimulate more fibre connections in their local areas. This process progressed slowly in waves 1 & 2 but appears to be moving at greater pace now (our submission is a wave 3 bid). Rural connectivity is now being given increased priority as illustrated by the additional £200M for rural full fibre as announced by the chancellor in the 2018 budget.

The LFFN programme has capital funding available from FY18/19 to FY20/21. Bids must be planned such that all LFFN funding is disbursed no later than March 2021. No revenue funding, or contribution to admin costs will be eligible.

It is not expected to be a condition for support that bidders must provide match funding, though authorities would need to provide project management resources as was the case for the Better Broadband for Norfolk Programme.

If successful, Norfolk would need to procure swiftly and so the preferred options available to the Council would include our existing contract with Capita Updata and the Suffolk led wide area network tender which included Norfolk public sector in its scope.

2. Scope of the proposed bid

- 2.1. Norfolk County, on behalf of the wider public sector, academia and business development groups has submitted bid for £18-20m of capital to upgrade up to 471 public sector sites across the county.
- 2.2. The bid documentation (excluding spreadsheets) is attached as Appendix A (Strategic Narrative).
- 2.3. Although the Gigabit Voucher Scheme is already in operation across Norfolk. Take-up by local businesses would be much greater if LFFN funding can be used to take fibre connections to public sector sites closer to the businesses, thereby reducing excess construction charges.

3. Financial Implications

- 3.1. The expression of Interest was for £13m. The bid submitted is for £18-20m plus income provided to individual businesses under the voucher scheme. The actual amount of funding could be anywhere from zero if we are unsuccessful up to the figure requested depending on the development of the business case with DCMS. Costs to NCC for project management will also clarified through this process but are likely to be approximately one full time senior member of staff plus ad-hoc specialist support (approx. £200k over 3 years).

4. Issues, risks and innovation

- 4.1. The major risk for this activity is the time and effort required to develop the bid / proposals which may or may not be successful in obtaining some or all of the funding sought.

Officer Contact

If you have any questions about matters contained in this paper or want to see copies of any assessments, eg equality impact assessment, please get in touch with:

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Strategic Narrative Norfolk County Council LFFN Bid

Background and context

As expressed in our Norfolk Digital Vision, we are seeking to invest in, stimulate and establish world class digital infrastructure within the County of Norfolk. Our politicians have been quoted as saying that we don't have, or want motorways in Norfolk, but we do want the digital equivalent. We believe that greater availability of ultrafast and Gigabit fibre infrastructure will enable the economic growth that the county needs so urgently, not least with government grants being ceased in the near future. In the introduction to "Caring for Our County: A Vision for Norfolk In 2021", Norfolk's leader Andrew Proctor talks about "installing Infrastructure First" and "Growing our Digital Economy".

Full fibre connectivity availability for Norfolk residents and businesses is minimally available outside of Norwich and this is a real problem for many businesses, schools and in specific sectors such as mobile network operators. We believe that improving high speed internet availability across Norfolk will enhance the current and future strategic importance of Norfolk as a location for new and developing businesses, not least because of the location of Norfolk and its proximity to Cambridge. Greater availability of fibre can help ensure long term economic and social benefits that are critical for transforming the County and improve educational achievement and secure high quality of life for our residents.

In Norfolk's published vision for the county, the following excerpts illustrate the expected regional growth and our recognition of the need for improved digital infrastructure.

Good Growth: Building communities we can be proud of.

In twenty years' time:

- **Norfolk's population could be significantly greater than 1 million people**
- **The economy will have 55,000 new jobs, and**
- **80,000 new homes will be needed**

A growing population is good for Norfolk as it drives economic growth, creating more demand for goods and services, but it will put increased pressure on infrastructure: requiring new schools, community facilities and doctor's surgeries, as well as improved road and communications networks and utilities.

Our planned investment in our road network and improvements to broadband and communications will give businesses better access to new markets, a wider workforce, and lead to an increase in productivity. We are working with our key growth sectors – digital, biosciences and renewables – to bring new, high value, jobs to the county.

In addition Norfolk faces particular challenges with an aging community and rapidly reducing budgets following the removal of central government grants.

- Norfolk's biggest population growth is in those over 65 years, and in this demographic category it is the very old that is growing fastest bringing with it increasing challenges around care and support.
- Norfolk currently spends £1 million every day on caring for vulnerable adults
- Considerable resources are spent supporting children in care and we want to use this money in a different way, supporting them to remain at home when it is safe and appropriate to do so.

The county needs access to ultrafast and Gigabit broadband connectivity to enable new delivery models such as telecare and other assistive technology for vulnerable adults and people with learning disabilities.

➤ **Our response to the challenge is being developed on three key strategic fronts:**

1. Through the enabling role of council owned assets and infrastructure to achieve better sustainable social and strategic outcomes for our residents and businesses in both our urban and rural localities.
2. By creating the right conditions to stimulate the market and attract investment to improve 2/3/4G coverage now and drive early adoption of the 5G Ecosystem across the County. We have been at the forefront UK wide in implementing a model to engage with the mobile operators.
3. Through the development of our Digital Vision that sets out our digital ambitions for the County of Norfolk. This is driven through our Digital Innovation and Efficiency Committee and identifies our desired outcomes, develops understanding our existing assets and future needs, drives improvements to the connectivity infrastructure, anticipates how drivers from Government and the business world facilitate the roll out of enabling digital infrastructure and providing an agile, robust base from which future bids, innovative partnerships and collaboration can be launched.

The development of the Local Full Fibre Network deployment proposal from the County of Norfolk is fully and actively supported by all of the local authorities and public-sector partners (such as the New Anglia LEP and the Chamber of Commerce). These proposals build upon the proven commitment to partnership working on digital infrastructure development across the County as demonstrated by the highly successful Better Broadband for Norfolk Programme.

➤ **Local Full Fibre Network Bid**

The bid has been through a thorough and detailed developmental process that has benefitted from input by officers and elected representatives from all the local authorities within the County and reflects the local geography of the County from the City of Norwich, to Market Towns, from Great Yarmouth to the rural areas of North Norfolk, Breckland and South North Norfolk and in so doing captures the diverse economic, social and strategic opportunities and challenges of the County of Norfolk.

Part of our bid preparation has been focused on a circuit upgrade model as currently defined by DCMS (potentially utilising PIA) which would result in 471 public sector sites within the County, where existing points of fixed connectivity are present being upgraded to a Gigabit fibre to the premise solution and the resultant creation of 471 new meet me points within our communities across the County. By extending fibre

connectivity to public sector locations across the County this will create an infrastructure and network which will:

1. Provide access to Gigabit connectivity to public sector points of presence including public buildings which will support and enable the County's One Public Sector digital transformation strategy.
2. Provide an infrastructure capable of taking Gigabit connectivity into local communities both rural and urban and transform the lives of residents (social benefit).
3. Provide the scope to create meet me points at public sector sites which will enable businesses to have greater access to Gigabit connectivity within the County and in doing so create the conditions for economic growth, investment (building on the vibrant digital community which is at present largely restricted to operating out of Norwich) and business retention.
4. Provide a platform which will contribute to an uplift in GVA countywide and in particular in areas identified through our due diligence and mapping as areas subject to social and economic deprivation.
5. Provide the opportunity to enable and accelerate take up of the Gigabit Fibre Business and Residential Vouchers Scheme.
6. Provide the scope for Gigabit backhaul to County Council owned assets including Fire Towers which would significantly contribute to the current County Council strategy of engaging with the Mobile Network Operators and improving mobile coverage across the County.
7. Provide the scope for Gigabit backhaul provision which will create a sustainable technical platform to support and deliver a 5G Ecosystem across the County. County already piloting a LoRaWAN Network.
8. Build upon the successful implementation of Better Broadband for Norfolk.

➤ **Business Case:**

Whilst still subject to more detailed survey, design and consultation we have developed a business case which will reflect the following project scope and potential cost (with option to scale).

Proposed Circuit Upgrades of 471 public sector sites with existing connectivity to a fibre to the premise solution

Please refer to the link detailed which will provide an insight into the scale and scope of the proposed bid.

<https://norfolkcc.maps.arcgis.com/apps/MapTools/index.html?appid=b9338c7dadc5473f919e85c58d820245>

Beyond this exercise we are developing other technical and commercial options which subject to further dialogue with the market and community groups we may be in a position to develop as a hybrid solution which would involve a combination of three further delivery methods within the County.

1. Engagement with Network Rail with a view to creating a high capacity fibre backbone across the County and creating the opportunity to deliver an open access fibre infrastructure network within the County.
2. We are supporting community fibre groups with free wayleaves and low-cost access to council assets where needed. To take fibre into communities where it is not otherwise commercially viable. Taking full fibre connectivity nearer to these resident's groups would significantly reduce their costs and accelerate their efforts where the market is failing.
3. We are supporting alternative network suppliers with low cost access to council owned assets such as tall buildings and fire towers to provide high speed wireless connections to homes and businesses that are not yet commercially viable for fibre connections.

➤ **Considerations:**

- The business cases are being developed with a view to their sustainability and liability for Norfolk County Council. In this respect the proposition as developed will:
 - ensure on going engagement with the market to attract private investment
 - demonstrate a commitment and proactive development of a regional based Digital Infrastructure Planning Strategy which will build upon the Governments Future Digital Infrastructure Review
 - though residents and educational institutions would undoubtable benefit from wider availability of full fibre connectivity, the primary driver for the counties bid is business growth. This is a stated priority for the counties politician and is fully aligned with the objectives of the New Anglia Local Economic Partnership (LEP).
 - lead on creating a consistent and shared telecom planning strategy and policy which can be implemented locally by local authorities in Norfolk.
 - demonstrate through both working with DCMS's Barrier Busting Team and the creation of its own Barrier Busting Board a clear commitment to identifying hurdles limiting or delaying digital infrastructure investment and developing processes which proactively overcomes these barriers

In this respect Norfolk's County Council's Digital Innovation and Efficiency committee has effectively acted as a local barrier busting team, promoting improvements to rural connectivity over commercial income from wireless infrastructure rentals. The committee's engagement with mobile network operators has led to its work being highlighted by the industry body MobileUK and the Chamber of Commerce as an example national best practice in public – private partnership working.

The committee has also worked with county and district planners to ensure wherever possible that all new developments are built with full fibre connectivity from the outset. These activities have been conducted while engaging proactively and productively with the DCMS barrier busting team.

- reflect a quantifiable outcome-based model which will realise Gigabit connectivity to all parts of the Region and in doing so deliver economic growth and social wellbeing
- make accessible Gigabit connectivity whether wireless or fibre to the whole Region
- create a technology agnostic IOT/5G ecosystem within the Region

- Should Norfolk's bid for LFFN funding be successful, we would develop and deliver a project governance and processes in relation to major digital infrastructure projects based on the proven successful arrangements for the Better Broadband for Norfolk Project.

➤ **Key Headlines Upgrade Option:**

471 sites and clusters identified broken into 350 Sites enabling economic clusters (clusters 5 plus businesses within a 500 metre radius of a public sector site) and an additional 121 sites enabling social and strategic clusters (sites not justified purely on economic grounds but on other social data).

Business due diligence based on reviewing FAME data of over 30,000 Businesses within the County and applying a SIC Code criteria which identified over 13,000 business which were subsequently mapped.

Through mapping of the business data and subsequent evaluation of each cluster identified 13,000 businesses within a designated 500 metre cluster criteria and potential additional 3,000 businesses would be captured when applying additional business parks, enterprise parks and workspaces.

Indicative Upgrade Costs (more definite figures will be produced but for the purposes of an overview we have used the following scenario:

Cost of Upgrade

Projected Bid Value £18-20M

➤ **Mapping:**

As part of our outcome based strategy we also have mapped the following:

1. all the business hubs, business parks, industrial estates, innovation hubs and workspaces across the County of Norfolk with a view to understanding the scale of the opportunity, how Gigabit connectivity could be delivered and how the DCMS business voucher opportunity could be promoted.
2. all planned residential and business developments across the County with a view to identifying actual opportunities to promote and implement a fibre to the premise strategy
3. all private and public residential care homes within the County with a view to identifying the means by which the Gigabit business voucher scheme could be enabled by the LFFN Bid and in doing so enable better connectivity for residents (potentially Wi-Fi) as well as providing a level of connectivity which will support the delivery of Adult Social Care and NHS Services.
4. public buildings and street furniture which could improve existing mobile coverage and support the deployment of IOT/5G Networks including LoRaWAN, Wireless, Narrow Band Wireless and 5G.
5. ONS data relating to social and economic deprivation with a view to identifying how we could quantify the impact of improved connectivity on future well being.
6. Rail Network Infrastructure with a view to understanding the potential benefit of including such infrastructure within our Bid.

➤ **Project Management Costs:**

There will be a project management element that Norfolk County Council and its partners will be required to contribute. As part of a wider digital strategy remit which

would include a project management element it is envisaged that over a three year period and based on a fixed commercial term, a budget of £150,000 - £200,000 should be assigned to this role.

Any such budget allocated to support this role will be considered the 'match' and will only be progressed if funding is secured.

The figures quoted above would be the maximum likely grant request made of Government to deliver the scheme within the County of Norfolk and would not include any additional financial drawdown from the County Council.

➤ **Project Specific Outcomes:**

- **Scale and Scope of Coverage:**

This will cover and benefit the whole of the County of Norfolk

- County of Norfolk 2,074 square miles
- a combined population of 898,000 (based on 2017 figures)
- over 30,000 registered businesses
- over 150 business parks and enterprise zones
- a predominately rural county but with key strategic urban areas which will offer opportunities for Norfolk County Council to work with DCMS and other public agencies to explore and subsequently implement technical and economically viable business cases which will drive Gigabit connectivity and ensure that the interests of all communities are captured in our wider digital strategy.

- **GVA Growth:** contribute to an uplift countywide of GVA
- **Business Retention and Growth:** the potential to enable over 16,000 businesses and 150 business parks/enterprise hubs with access to affordable and accessible Gigabit Connectivity which will transform these businesses, stimulate future business investment and have a positive impact on business rate value and retention.
- **Economic Benefit:** to create a platform of connectivity which will attract long term investment
- **Rural Communities:** ensure a real and deliverable focus for rural communities and businesses ensuring that rural communities are part of this exciting future. This is critical given that half of Norfolk's people live in rural areas.
- **Tourism:** create a platform which can support the important and growing tourism sector within Norfolk
- **Agriculture:** create a platform which can support the important sector of agriculture and how technology will contribute to the evolution of agriculture.
- **Smart Borough 5G Ecosystem:** create an accessible fibre platform which would support a future 5G ecosystem and enable Norfolk County Council to promote and proactively implement a Smart County Strategy with real tangible outcomes.
- **Independent Living:** contribute to creating a platform which will improve access and connectivity into homes and in doing so support the County and other key public sector partners key objective of enabling Independent Living.
- **Residential Care Homes:** drive and promote improved access to all private and public Residential Care Homes providing potential to deliver Wi-Fi but also provide a platform for the NHS and local Care Services to support residents.
- **Social Wellbeing:** enable access to Gigabit fibre connectivity to all residential homes within the County.

- **Support and enable Strategic Objectives:** Align and proactively contribute to the realisation of the County's "Caring for Our County: A Vision for Norfolk In 2021"
 - **Social Benefit:** improve access to Gigabit fibre connectivity in some of the economically and socially deprived areas within the County.
 - **Tackling Skills and Training:** improve access to digital services which would stimulate business which in turn will generate sustainable job opportunities that could be accessed by local people and in turn generate genuine opportunities to raise aspirations and positively influence skills development.
 - **Housing:** become a default requirement in all new housing development regardless of tenures
 - **Public Sector Services:** enable innovative ways of delivering Norfolk County Councils stated vision of One Public Sector across the County (potential creation of a platform to deliver a One Public Sector Network within Norfolk).
 - **Mobile Coverage:** enable and support Norfolk County Council's innovative approach to engaging with the Mobile Operators to improve mobile coverage in Norfolk.
 - **Higher Education:** enable closer engagement with the UEA & NUA potential of enabling Eduroam in public sector sites..
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