

## **BT SCOTLAND**

### **WRITTEN SUBMISSION**

BT Scotland welcomes the opportunity to respond to the Infrastructure and Capital Investment Committee's inquiry into the Scottish Government draft budget 2015/16.

BT has responded to the Committee's three main themes for this inquiry, linked to the Scottish Government's national performance outcomes – reducing Scotland's Carbon Footprint, reducing traffic congestion and increasing the proportion of journeys by public or active travel. We have kept our response to areas where BT has a direct interest or influence, particularly the role digital technologies can have in meeting these national outcomes.

BT welcomes the increase in the Budget to support the digital economy and associated infrastructure. Digital technologies offer great potential for transforming markets, businesses and public services by improving productivity and opening up new markets for companies in all sectors of the economy. In particular we welcome the announcement that Scotland will use its borrowing powers and NPD model to allocate £70 million for the innovative development of infrastructure projects to meet Digital and Low Carbon policy priorities. In our response, we touch on some examples of where BT has helped to turn these priorities into working solutions across the UK.

BT is also pleased that measures in the Draft Budget will support the development and growth of Smart Cities. BT is actively working to help public sector partners and the city councils develop plans for using digital technologies that will be essential for enhancing productivity and delivering faster, more sustainable growth.

#### ***1. Reduce Scotland's Carbon Footprint***

BT is one of the only major telecommunications companies to have reduced energy consumption for five consecutive years – these cumulative energy reductions have resulted in £131m in annualised energy savings. If more companies and the Scottish public sector commit to source renewable and low carbon energy, then suppliers would invest in greater capacity to fulfil this demand.

All of our electricity consumption in Scotland is generated from renewable sources. BT is a major consumer of electricity, using around 170 Gigawatt hours (GWh) per annum in Scotland. In June 2014 we announced that we will purchase 50% of the power generated by the Fallago Rig wind farm in the Scottish Borders, in a £300m deal to meet this demand.

In 2013/14 we reduced worldwide energy consumption by 2.8% compared to the previous year working closely with our key suppliers. We have built a comprehensive database of power consumptive data for many of the devices we specify in our customer solutions - BT has become the first company in the world to have product carbon footprints independently verified by the Carbon Trust to the new GHG Protocol Product Standard.

We are encouraging our suppliers and our employees to adopt more work and energy efficient practices. BT has one of the world's most sophisticated smart energy networks – it now extends across 700 buildings and 3,000 network sites. This “Intelligent Exchange” allows BT monitor and optimise energy consumption across its vast estate in the UK.

BT is a leader in the field of agile working, providing customers such as Scottish Water with Agile Working Programmes which can provide organisations with new ways of working by harnessing mobile digital technologies. As part of its Agile Working Programme, Scottish Water has adopted a new, location-free work style through actively promoting the use of mobile devices.

Scottish Water estimates that it has increased the effectiveness of its workforce by a conservative 10 per cent. Fewer engineers are needed to cover the same territory and they have a much reduced need for office facilities. More efficient allocation of jobs to engineers means a reduction in fuel costs and miles travelled. More efficient work scheduling plus reduced time spent travelling to offices means that Scottish Water employees drive less miles, so lowering emissions.

## **2. *Reduce traffic congestion***

Reducing traffic congestion can be achieved by enabling flexible working solutions, but also via smart technologies that are now being adopted by local authorities as they seek to make efficiencies and improve services.

BT has been making developments that will enable use of smart energy technology in smart street lighting which is a system that enables street lamps to connect, gather data, and relay it to a central platform for analysis and control, thus yielding higher efficiencies for councils.

The installation of smart lighting can also be used to run additional sensors on the masts and in the ground to assess air quality, as well as traffic volumes and pedestrian activity for transportation management.

If we combine the ‘connected home’ with smart energy grids and smart transportation we could create communities that are not only sustainable but are also potentially net contributors of clean energy.

One example is the Milton Keynes project to accelerate its 'Smart City Programme'. The MK: SMART project will gather real-time information from a range of sources across the city and provide innovative analysis tools to enable much more efficient use of transport, water and energy infrastructures.

BT is the major IT partner in the project consortium led by the Open University. The objective is to use the latest technologies to resolve the constraints to growth for the city and to improve quality of life for its citizens.

The collaborative project will see the development of a "MK Data Hub" with state-of-the-art data acquisition and management infrastructure capable of collecting large-scale city data relevant to how the city functions.

Specifically, the hub will have access to data streams from both key infrastructure networks, such as energy, transport and water, and other relevant sensor networks, including weather and pollution data.

The MK: SMART project is expected to deliver up to 20 per cent in water savings, 50 per cent less traffic congestion, a 2.8 per cent reduction in electric consumption and two per cent gas reduction.

### ***3. Increase the proportion of journeys to work by public or active travel***

The national performance outcome does not presently take into account the benefit digital technologies can offer to improve the experience of public transport. Modal shift can be influenced by many factors, including the provision of free WiFi on trains and buses, allowing people to work and connect while travelling.

For example, BT is delivering the Urban Wireless programme as part of Glasgow City Council's Digital roadmap, which aims to place the city as a world-leading digital city by 2017, supporting economic and social regeneration.

Free WiFi improves people's experience of living in, working in or visiting Glasgow by enabling them to have high-quality access, via smartphones and tablet computers, to sites providing such information and the council's online services, tourist and event information, job sites, and local businesses and services.

Since it went live more than 40,000 individual users have logged on for more than 300,000 sessions on the network, downloading well over a terabyte of data. Another illustration of the success of the city's Urban Wireless network is that during the Glasgow 2014 Commonwealth Games, usage was higher than that recorded during the equivalent period in Westminster during the London 2012 Olympic Games.

Scotland is leading the way on access to free WiFi. For example the new ScotRail franchise will deliver WiFi on all rolling stock and local authorities continue to explore opportunities to deliver WiFi across their buildings and estates.

Outside of Scotland's cities, the Digital Scotland Superfast Broadband initiative (which consists of two projects – one covering the Highlands and Islands area and the other covering the Rest of Scotland) being delivered by the Scottish Government and Highlands & Islands Enterprise in partnership with BT will open up new opportunities for a different way of living and working that encourages strong and growing rural towns and villages. A key advantage of this will be enabling more and more people to work from home in rural communities.

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**30 October 2014**