Overview
I understand that the Infrastructure and Capital Investment Committee is conducting a scoping exercise and will look specifically at:

- the coverage, availability and uptake of broadband across Scotland
- the ways in which different local areas are working to promote access to broadband in Scotland and how good practice might be shared
- what work is required by the Scottish Government, infrastructure providers and others in order to expand Scotland’s digital infrastructure

This report aims to highlight problems with coverage in the semi-rural areas of the City of Edinburgh which are within my constituency. I also hope to detail some of the work which is required by the Scottish Government and commercial providers to ensure that all of my constituents have fast, reliable broadband fit for the 21st century.

Background
I should disclose that I am currently running a campaign calling on the Scottish Government to allocate some of the funding made available by the UK Government and the Scottish Government through the Spending Review to improve broadband provision in the rural west of the city. Earlier this month I had a meeting with the Cabinet Secretary for Infrastructure and Capital Investment to discuss the matter.

In spite of the entire constituency being within the City of Edinburgh Council area, certain more rural areas, suffer from very slow and unreliable broadband. Kirkliston, Ratho, Ratho Station, Newbridge, Dalmeny and South Queensferry all suffer to some degree. Provision in Kirkliston and the surrounding area is particularly poor.

The Kirkliston exchange serves 2978 residential premises and 222 non-residential premises at present. Kirkliston is an Ofcom ‘Market 2’ area which means that only two or three ‘principal’ operators provide broadband services at the exchange.

An Ofcom study published in July 2011 concluded that Edinburgh has the fastest average maximum broadband speed at 10.1Mbps. Likewise the city has the lowest percentage of people receiving less than 2Mbps (4.5%) in the UK. BT exchanges throughout the city provide broadband at maximum speeds of between 8Mbps and 20Mbps. It has also recently announced the rollout of super-fast fibre access in some areas, like Morningside.

In Kirkliston, however, many of my constituents have speeds of between only 1 and 2 Mbps. To put that in context, it took one constituent 1 hour and 59 minutes to download a Microsoft file of 585mb. I have also been informed by a constituent whose father runs an e-commerce business in Ratho that the connection speed often falls to just 200-300Kbps; a speed which is ‘crippling’ to business. Virgin Media offers broadband services with speeds of up to 50Mbps across the city and plans are in place to upgrade the service for a rollout of speeds of 100Mbps around the Gyle area. This service is not available in Kirkliston or South Queensferry.

At present, to get the kind of speeds which would allow residents to use the internet in a normal way, they would need to pay for a dedicated fibre-optic link to their home. This would be much more expensive than paying for broadband provision.

Opening up the fibre network to the community would only work if the exchange was upgraded for super-fast fibre access.

There is significant expansion in Kirkliston, with a development of 600 plus new houses currently under construction. During the planning process, Kirkliston Community Council did request that a condition be put on the planning application which would tie the developers to invest in better broadband for the entire community. The Community Council’s efforts to try to secure this were unsuccessful.

A report by the City of Edinburgh Council has identified the areas in the rural west which suffer from poor connectivity (shown in Appendix 1). These locations are noted in the report as being the only
places within the City which do not have speeds of between 8Mbps and 20Mbps. The Council does therefore recognise the problem and its uniqueness to the rural west of the city.

**View of providers**

I have had a meeting with BT in which I was informed that it was not commercially viable to invest in the upgrade needed at the Newbridge exchange. BT has indicated to me that should some government investment be forthcoming, it may well then be commercially beneficial for companies to also invest in the exchange. At present however there are no plans by BT to upgrade the exchange in the near future.

BT is aware of the issue and has discussed with me the barriers to commercial investment in the area. As part of this I have asked whether any work has been done to gauge the amount of government investment in infrastructure necessary to make an upgrade to the Newbridge exchange a commercially viable option. Unfortunately, no exact figures have been forthcoming. However, BT are recommending that the money is invested in large scale projects which would bring economies of scale, ensure consistency of technologies and futureproofing and bring best value to the consumer. Such investment would of course trigger commercial investment from industry.

I know that in Cornwall, for example, £53.5 million of European Regional Development Funding unlocked investment of £75 million from BT to enable the upgrade of exchanges and telephone networks across Cornwall and the Scilly Isles.

I understand that Talktalk is planning to update their broadband service in Kirkliston by undertaking Local Loop Unbundling. Local Loop Unbundling is the process by which third party network operators are able to install equipment in to BT telephone exchanges in order to provide their own services without having to touch BT's network. Only the copper pair from the exchange to the premises, which remains the property of BT, is used by the third party.

As part of the update to the New Generation Network, Talktalk will install new technology into the exchange which should see customers benefitting from average speed increases of 50%. The date set for the work is 29th November 2011. I have asked constituents in the Kirkliston area who use Talktalk services to let me know what improvement they experience.

The Scottish Government is currently considering how best to bring improved connectivity to those areas which will be unviable for the telecoms industry to reach using commercial criteria. The areas I have mentioned which fall in my constituency will not be reached using the usual commercial test. I believe strongly therefore that it should benefit from Government funding.

**Summary of main issues**

- Residential access to fast reliable broadband in Kirkliston is particularly poor. Although Ratho, Ratho Station, South Queensferry, Newbridge and Dalmeny are also affected
- There is little appetite for commercial upgrades to the Kirkliston exchange without government investment in the first instance as it would not be commercially viable
- Edinburgh City Council is aware of the problems and the Finance and Resources Committee is considering the matter
- Without investment from the Scottish Government through Edinburgh City Council, the rural west will not meet the target of next generation broadband being available to all by 2020, with significant progress made by 2015

**Conclusions**

Connectivity in the rural west of the city is low because the exchange needs upgrading. An upgrade will not happen unless some government investment is put into the project as it is not an exchange covering enough homes and businesses to make this commercially viable.

Kirkliston is, however, a growing village with new housing and it is probable that commercial investment in the area will follow. The village will need more amenities and these will require fast, reliable broadband. The same is true of nearby communities like Ratho and Dalmeny.

If the exchange is not upgraded it will have a direct impact on the likelihood of economic growth in the area.