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Committee   Wellington Regional Strategy Committee
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Broadband project update

1.   Purpose

To provide an update on the Broadband Project and identify deliverables over the next few months.

2.   Significance of the decision

The matters for decision in this report **do not** trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002.

3.   Project summary

The Broadband Project is divided into four workstreams as follows:

1. Governance

2. Funding

3. Technologies/deployment

    • Region-wide rules for new trenching technologies
    • Region-wide rules for aerial deployment
    • Federated GIS / Road Openings/ Regional repository of local government assets
    • Regional agreed policy for access to local government assets

4. Uptake/demand aggregation

    • Businesses – Grow Wellington
    • Health
    • Education
    • Councils – particularly Councils as IT purchasers

These are reported on separately below.

4. Governance

This workstream was set up when there was a prospect under the previous Broadband Investment Fund (BIF) programme that councils would be putting together new a new consortium to undertake broadband rollout.

With the change of government there was a significant shift in the scope of the programme and an emphasis on private sector partnerships and less on local government as equity participants. The political climate is unfavourable for significant new roles for councils, and the timing of this process in relation to councils' LTCCPs was also problematic.

However, a number of councils across the country already have a stake in fibre companies (notably in our area Smartlinx3 with PCC, HCC and UHCC as shareholders), and the future involvement of councils in this way remains a possibility. The rationale for new fibre networks to have a community shareholding and to be managed locally in a way that responds to local circumstance is still relevant.

Further attention to this area may be required when the final form of the Broadband Investment Initiative is known.

5. Funding

Earlier this year the Government announced proposals for its Broadband Investment Initiative (BII). The key features are:

- an urban fund[1] for accelerating the roll-out of ultra-fast fibre-based broadband because of its fundamental importance to New Zealand's growth prospects

- within the first six years to 'priority users' - businesses, schools and health services, plus green field developments and certain tranches of residential areas - and to 75% of the population within ten years

- vehicle to be Crown Fibre Investment Company (CFIC) to manage investment in 25 urban areas[2] via Local Fibre Companies (LFCs)

- a contestable process to select partner shareholders for LFCs, based on criteria including the amount of additional fibre coverage, proposed capital structure, commercial viability, consistency with government objectives, and the track-record of the partner

- the government's shareholding may be subject to a lower rate of return for a period

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[1] $48m of separate funding for rural broadband has been allocated but there are no details yet.

[2] The urban areas aligned to Wellington Region were 1) Upper Hutt, Hutt, Porirua and Wellington cities, 2) Kapiti/Levin, and 3) Masterton.

- the primary 'product' offered by an LFC will be dark fibre and optionally a bitstream (or Ethernet) service - not retail services

- complementary work on facilitating access to and use of fibre cable deployment on telephone and electricity poles; local authority-owned passive infrastructure such as ducts; micro-trenching; and fibre-optic cable "drops" from the street-side into customer premises.

The thinking in the BII proposal is very consistent with the current position of councils, i.e.

- recognising the critical importance fast affordable broadband and the step change needed to achieve it

- a long term ownership interest for the public sector in base layers only, and maintaining open access

- progressive rollout to priority users such as businesses, schools, health providers and initial residential – followed by fibre-to-the-home

- working with existing providers and avoiding excessive duplication of existing infrastructure.

Following the release of proposals for the Broadband Investment Initiative, the region agreed a regional submission to MED at the end of April, which:

- reiterated our strong support for broadband as a key economic enabler – consistent with the Wellington Regional Strategy

- asked if the regional groupings could be re-organised using different criteria to recognise ones like Wellington region

- noted that the likelihood of council equity involvement was small

- outlined the critical role of councils as controllers of the road corridor, owners of potentially useful assets, and representatives of the community interest

- commented on the BII model and the need for a collaborative approach that maximised the leverage of existing assets.

All likely private sector participants have had a written offer to work together on BII-related proposals and most have responded. Clearly there is a range of positions – as previously with the BIF – so those discussions are more specific with some companies than others. We are conscious of the need to maintain an open offer to all to collaborate in fibre rollout, which remains the goal whoever is doing it.

Recently the Minister has announced a delay of approximately two months to the BII timetable, to enable the difficult policy issues to be worked through. It may be possible to make up time in later stages of the process.

The BII process previously announced was for a Request for Proposals to be released in mid August and proposals due mid October – so this would now be October and December.

6.   Technologies/deployment

6.1   Region-wide rules for new trenching technologies

The objectives of this area are to reduce the cost and increase the speed of in-ground fibre installation. Conventional trenching is relatively expensive, and for the Government's fibre plan to succeed it is essential that the cost of deployment is reduced. Shallow trenching and other technologies like aerial installations will be needed, i.e. a suite of technologies to cater to different situations.

Common, approved technologies across all the regions councils will reduce transaction cost and complexity for LFCs, and be part of making the Wellington region 'fibre friendly'. A further objective is to have some control over what is agreed instead of rules being enforced on councils further down the track by the Government.

We plan to:

- Conduct and assess a trial with a view to evaluating changes to current rules under agreed conditions (e.g. open access requirements, certain road classes, specific ground conditions, etc.). Note that this will involve some informed judgements on the longer-term impact on the road structure, and/or mechanisms to properly assign risk and liability.

- Propose a new set of trenching technologies to councils across the Wellington region (i.e. at least two or three new technology options that would be allowable such as shallow trenching at a specific depth and specification).

6.2   Region-wide rules for aerial deployment

A similar rationale to in-ground deployment applies - in terms of reducing costs and having common rules. This sub-project is separate because the legal situation is different - there is no 'as of right' access and owner permission is required. In addition the Resource Management Act rules are different because of visual impacts.

Furthermore, the scope for attachment to poles in the region may be limited because of existing infrastructure and community preferences not to have additional aerial cables.

We plan to:

- Prepare a stocktake of existing rules and agree on a set of streamlined region-wide aerial deployment rules for fibre. Note that these may not, and probably will not, be the same in all council areas.

- Agree how aerial deployment would be allowed to be used in future broadband rollout and the potential policy changes needed to achieve this.

6.3 Federated GIS/road openings

Each Council uses a combination of systems (GIS and others) to individually manage the road openings process and manage asset information. In addition councils own a range of assets which could be useful to a new fibre company, such a light poles, unused duct, and buildings.

The current situation is not efficient for operators, particularly when planning telecommunications assets that cut across Council boundaries.

Note that this sub-project deals with a potential shared service and will need to be linked to the existing shared services project.

We plan to:

- Document the current state of GIS, coordination of road opening process and any other related processes, and in doing so, clearly document and agree existing shortcomings.

- Workshop with the appropriate regional shared services group to develop a reasonably specific vision, objective/goals and business requirements statement from a local government perspective

- Consult with major operators in the region to enhance the business requirements statement to ensure that it specifies what the operators need, in particular their security and confidentiality needs

- Issue an "RFI" to the market asking for innovative solutions and business models to achieve the business requirements, and develop an IT solution approach with this information.

6.4 Regional agreed policy for access to local government assets

As noted above councils own a range of assets that could be useful in development of new broadband networks, such as existing unused ducts, existing stormwater and sewer pipes, structures in the road corridor such a light poles, and building where transmission equipment could be mounted. The GIS-related project above would catalogue these and provide a basis for asset management, but a regional policy on access to them would also be useful.

The areas that this would need to cover would include charging models, legal agreements, and policies for access to existing stormwater and sewer pipes, and possibly some exploration of how duct installation could be integrated with planned water/stormwater/sewer renewals.

We plan to:

- Compile a database of existing council assets that could be used for telecommunications networks.

- Develop an agreed regional policy for access to these assets.

- Compare and share existing legal agreements for access to assets, with the objective of achieving similar conditions where possible.

- Discuss with Capacity and 'three waters' managers elsewhere in the region the planned future programme of renewals and upgrades, and the practical implications and costs of co-locating telecommunications duct when this work takes place.

7. Uptake/demand aggregation

The focus in this area is 'priority MUSH users' (municipalities, universities, schools and hospitals) – essential users where there is a large public good benefit, and where typically ideal broadband capacity is high.

The reasoning for activity in this area is that the use of new technology must be promoted along with the actual provision of fibre connectivity. The experience elsewhere in the world is that both are needed to rapidly achieve the full benefits of new communication technologies.

7.1 Businesses – Grow Wellington

As a creative economy distant from most markets, there is a strong need for first-class communication technology locally and high capacity connections to the rest of the world. A large number of small businesses operate from home so there is an imperative to get fast, affordable broadband to residences as soon as practicable.

Grow Wellington has a key role in this sub-project.

We plan to:

- Showcase examples of technology uptake in leading businesses to show what is possible.

- Work with specific clients to understand their communications needs and how these can be addressed to grow their businesses.

- Publicise what services are available to businesses in specific locations.

7.2 Health

There is significant potential in the health area for broadband to deliver enhanced outcomes and improve efficiencies. Examples are greater use of electronic patient records, remote diagnostics, and remote monitoring. The large amount of data required for high quality images to be transferred, or to allow real-time video conferencing or even operating remotely, means that fibre is needed.

The council role in this area is likely to be facilitative only, with primary responsibility resting with the Ministry of Health.

7.3   Education

Education is another area where there is a very high potential usage for high-speed broadband services, but the cost of those services in the current environment is prohibitive.

The Ministry of Education has recently committed $34m to fund networks within schools so that they are 'broadband ready' for when fibre arrives at their gate.

Generally the universities are already well connected with fibre, although there are some specific sites where connectivity could be improved.

We plan to:

- Facilitate a group of leading secondary schools to participate in the MoE programme, and where possible form clusters that include nearby primary schools.

- Where schools are close to existing fibre, broker their cost effective connection to those networks.

7.4   Councils – particularly Councils as IT purchasers

Councils themselves are significant users of telecommunication services (and IT), for example libraries where residents can access information via the internet and communicate with interest groups. Councils control and manage large amounts of property information and GIS data.

We plan to:

- Map existing telecommunication requirements and council spend, including current contract conditions and terms.

- Explore development of a programme to achieve fibre connectivity to all councils' sites, along with joint purchasing where appropriate.

8.   Conclusion

Broadband remains a key project for the region under the Wellington Regional Strategy, and preferably as an early adopter.

The change of government and review of broadband rollout plans has introduced a delay and meant a refocus for councils – reducing the likelihood of equity participation.

Councils will need to maintain a dialogue with major telcos and any facilitation of broadband rollout will need to be available to all.

Work on deployment and technologies remains highly relevant and will be needed regardless of who is actually installing new networks.

We will continue to report back regularly on progress with these projects, and the release of the BII RFP will be the next major milestone.

9. Communication

This project and other activities relating to it will continue to be communicated as the opportunity arises.

10. Recommendations

That the Committee:

1. **Receives** the report.

2. **Notes** the content of the report.

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