2. An interconnection to an alternative backbone network should be provided, possibly using a radio link.

3. The applicant should provide more detailed information on the coverage of the proposed wireless sites.

4. The suitability of the proposed wireless sites for backhaul radio needs to be demonstrated.

4.18 DCMNR2004 - 218.1 BALLYBOFEY/STRANORLAR

4.18.1 Applicant's summary description of the project

Metropolitan Area Network in the town of Ballybofey /Stranorlar including a Co-Location facility, interconnection with Eircom and ESBT and the installation of a number of primary connections. The project also includes for a wireless site in each town. The approximate length of the Ballybofey/Stranorlar MAN is 10.7km.

4.18.2 Evaluation Summary

Project Elements

1. The deployment of a duct and fibre route of length 10.7km in Ballybofey/Stranolar.
2. The installation of drop connections at potential customer sites.
3. The development of a wireless site at the fire station, no mast is required.
4. The fibre network is interconnected to ESB-Telecom's network near the town.

Location

The network covers the town(s) of Ballybofey/Stranolar in Co Donegal.

Coverage

The fibre network covers most parts of the town and extends to outlying areas and to the ESB-Telecom interconnection points. A total of 355 potential customer are on the fibre route.

The applicant did not provide an estimate of the percentage of businesses with line of sight to the wireless site, however the map provided does indicate the wireless site provides extensive coverage.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. It is recommended that the length of the fibre reduced in order to increase the value offered by the project. The link to the ESB-telecom network should be retained as well as access to important customer sites.

4.19 DCMNR2004 - 218.2 BUNDORAN

4.19.1 Applicant's summary description of the project

Metropolitan Area Network in the town of Bundoran including a Co-Location facility, interconnection with Eircom and ESBT and the installation of a number of primary customer connections. The project also includes for a wireless site in the town. The approximate length of the Bundoran MAN is 8.1km.

4.19.2 Evaluation Summary

Project Elements

1. The deployment of a duct and fibre route in Bundoran of length 8.1km.
2. The installation of drop connections at potential customer sites.
3. The installation of a collocation centre
4. The development of a wireless site at the fire station, no mast is required.

Location

Bundoran, Co Donegal.

Coverage

The proposed fibre network provides extensive coverage of the main street of the town and reaches some outlying areas and provides a route to the ESB-telecom interconnect point. A total of 139 potential customers are on the fibre route.

The applicant did not provide an estimate of the percentage of businesses with line of sight to the wireless site, however the map provided does indicate the wireless site provides extensive coverage.

Conclusions

The economic viability of the project is open to question given the limited demand from larger organisations.

Recommendations

1. It is recommended that the project be reconsidered by the Applicant, and that the fibre element of the network be reduced to a length appropriate to the potential demand, while retaining the link to ESB-Telecom's network. The proposal should be resubmitted in a later call.

4.20 DCMNR2004 - 219 NORTH WEST CROSSBORDER DIGITAL CORRIDOR

4.20.1 Applicant's summary description of the project

The aim of the project is to "substantially improve the resilience of the existing spur backbone network, and the competitiveness of the broadband market, in Donegal and the Border Region by constructing a ducting and fibre link between the existing Letterkenny MAN and Derry to connect to the Northern Ireland broadband backbone network".

This will involve the following:

1. Building an open access vendor neutral ducting and fibre link from the Letterkenny MAN to the border with Northern Ireland at Derry.
2. Installing a Co-location Centre at the border with Derry to enable interconnection with the broadband fibre networks owned by carriers operating in the UK.
3. Provide for interconnection points with the existing "spur" backbone fibre networks owned by Eircom and ESBI to convert them into fully resilient rings.

4.20.2 Evaluation Summary

Project Elements

1. The project plans to build a duct and fibre network from Letterkenny to the border close to Derry city, to facilitate the provision of cross border fibre links.
2. A collocation centre would be deployed at the border.

Location

The planned duct and fibre route is within County Donegal.

Coverage

The planned network provides part of a potential cross border link. If the link were to be completed with a section of duct in Northern Ireland to Derry city, the project would provide a backbone link serving Letterkenny and Derry and providing important cross-border backbone interconnection.

Conclusions

The evaluators supports the objective of the project, that is the provision of a cross-border link between Letterkenny and Derry, enhancing the resilience, interconnectivity and competitiveness of not only the metropolitan area network in Letterkenny but that of the national backbone network generally. There is, however, additional work needed to identify an optimum solution and to demonstrate that key dependencies are addressed.

Alternative options and configurations should be analysed to optimise the solution, considering, inter alia, the following issues:

- The part of the link within Northern Ireland, that is from the border to Derry City, is not covered in the proposal, and the completion of this link is a critical external dependency, without which the project would not be viable. It has not been demonstrated that the link to Derry is certain to be completed.

- The route chosen duplicates a previously NDP funded broadband project, the ESB-Telecom backbone network project, which runs from Letterkenny to Buncrana. The ESB-telecom network offers both dark fibre and broadband backbone transmission capacity, the latter at competitive rates.

- Many of the project objectives may be achieved, at a reduced cost, by providing a cross border connection into the existing ESB-Telecom network in the vicinity of Burnfoot, about 6km from the border. A resilient route between Letterkenny and the interconnection point with ESB-Telecom could also be provided.

- The project plans to deploy a collocation centre at the border. Such a centre may not represent good value for money compared to a simple cable chamber.

Recommendations

1. Alternative options and configurations should be analysed to optimise the solution. The project should further analyse and review the potential utilisation of the existing NDP funded infrastructure in the area. For example, a link connecting the ESB-Telecom network to the border and a separate link providing a resilient connection from Letterkenny MAN to the ESB-Telecom interconnection point should be considered.

2. The project should be made conditional on the completion of the link within Northern Ireland to Derry City.

3. The deployment of a collocation centre at the border should only be accepted if there is a demonstrable requirement for it.

4.21 DCMNR2004 - 220 RATHANGAN

4.21.1 Applicant's summary description of the project

The key elements of the Rathangan Project are;

- The construction of a Wireless MAN that will incorporate all of the main business and residential premises, as well as community sites such as educational institutions, medical centres, public buildings, community centres and libraries. The network will include the establishment of a Collocation facility in the south of the town that will act as a PoP and Interconnect point for national and global carriers;
- The Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided on the high site for the installation of wireless access equipment.
- Connectivity to Esat BT and Irish Rail fibre will be possible via a backhaul circuit to Kildare. (This idea has not been developed - see below).

4.21.2 Evaluation Summary

Project Elements

1. The construction of a Wireless high site and radio mast at Rathangan.
2. The development of a collocation centre.
3. The deployment of a backhaul radio links to interconnect with national and international networks at City West.

Location

The network supports wireless service in the Rathangan town area, Co Kildare.

Coverage

The high site appears to give coverage of Rathangan town and all the main business and residential premises.

Financial Issues

Operating costs are high. A large element is the replacement costs of radio link equipment.

The dependency of the project on backhaul rent renders the project vulnerable to lower than anticipated demand.

Conclusions

The financial viability of the project is marginal.

The Rathangan project supports only radio access systems, and hence is dependent on the long term success of that technology in the market.

It is not clear why there is no backhaul link to Esat-BT's backbone network which runs through nearby Kildare town rather than using a radio link to City West.

The radio backhaul system is complex with two intermediate hops, at Dunmurry Hill and Saggart, and requires the rental of mast space at three sites at a total cost of about €30,000 per year.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. As the project is dependant on the wireless access market, it should only go ahead if at least one wireless service provider commits to using the facilities.

3. The link to city West is not fully justified and give the high operating cost of such links should be replaced by a radio link to the project in Kildare town, if appropriate.

4.22 DCMNR2004 - 221 MAYNOOTH

4.22.1 Applicant's summary description of the project

The key elements of the Maynooth Project are;

- The construction of a dark Fibre and dusting network together with a Wireless MAN that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Collocation facility in the main business park that will act as a PoP and Interconnect point for national and global carriers;
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Collocation point providing the possibility of direct connectivity to backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will be possible via the proposed Fibre Network.
- Direct connectivity to either the ESB Telecom or Aurora Telecom dark fibre networks enabling HEAnet to provide NUI Maynooth with the bandwidth required to expand their range of collaborative projects.

4.22.2 Evaluation Summary

Project Elements

1. The deployment of a 8,000 metre duct and fibre network in Maynooth town, connecting to the university.
2. The deployment of a collocation centre on an NUI site.
3. The installation of a wireless site with a radio mast on the roof of the university.
4. A fibre network will be interconnected to Esat-BT's network.
5. The deployment of a radio backhaul links to City West via Saggart Hill.

Location

The planned network is located in Maynooth town and along the route to interconnect with ESB-telecom south of the town.

Coverage

The planned fibre network covers Maynooth University and some sections of the town.

The applicant states that 85% of businesses in the town have line of sight to the wireless site.

The application notes that 6,800 potential customers on the route of the fibre network. The majority of these users are in the university.

Financial Issues

A section of the duct route, 3km in length, will be installed in conjunction with another project at very low cost.

Social Aspects

The NUI Maynooth is an important research centre in diverse areas including bioengineering and geocomputing.

Conclusions

The proposed fibre connection into the ESB-telecom's network (estimated cost €500,000) is apparently critical to the requirement of the NUI, as it will ensure end-to-end fibre connectivity to ensure that advanced applications and services can be supported. However this element of the project does not currently appear to be feasible as there is no mechanism currently in place to provide funding to enable such a development to proceed. It is currently unlikely that the ESB will fund the development.

An alternative proposal is to install a fibre cable connection into Aurora's network 18km from Maynooth. This is estimated to cost €900,000.

The project will require close cooperation with the NUI, who will make land available for a collocation centre, a rooftop for a wireless site, and possible duct or fibre to connect the main duct route to the collocation centre.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The length of the fibre route should be reduced in order to increase the project's value for money.

3. The proposed project interconnection to the ESB-T does not appear to be feasible and this element of the project should be dropped, unless the ESB agreed to fund the project, or an alternative funding mechanism can be found.

4. The alternative option of an 18km link to Aurora is really only required to meet the needs of the NUI and, as such, is considered too expensive at an estimated cost of €0.9m, unless additional funding from another source were to be provided. The network does support interconnection to Esat-BT's national backbone network.

5. The availability of backbone dark fibre from Esat-BT for non-commercial applications should be explored.

6. The terms and conditions of the transfer of control of the collocation and wireless site, together with any necessary ducting, from the NUI to Kildare County Council should be clarified prior to issuing any grant agreement.

7. The need for backhaul radio is not well justified and it is not recommended to develop the proposed Kildare regional radio network.

4.23 DCMNR2004 - 222 SALLINS

4.23.1 Applicant's summary description of the project

The key elements of the Sallins Project are;

- The construction of a Dark Fibre and ducting network together with a Wireless MAN that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centre, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Collocation facility in the Millennium Business Park that will act as a PoP and Interconnect point for national and global carriers;
- Interconnect with the existing extensive duct system in Millennium Park and with ducts in the new relief road.
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Collocation point providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will also be possible via a backhaul circuit.

4.23.2 Evaluation Summary

Project Elements

1. The deployment of an 8,000 metre duct and fibre network in Sallins and Naas (part only) towns.

2. The deployment of a collocation centre.

3. The installation of a radio mast.

4. The deployment of a backhaul radio link to City West.

5. The fibre network will be interconnected to the Esat-BT network.

Location

The project targets Sallins town, however most of the network development appears to be in the nearby town of Naas.

Coverage

The fibre network appears to be concentrated in areas of commercial development is Naas and Sallins.

The radio coverage is not clearly shown.

Financial Issues

A section of the duct route 2km in length will be installed in conjunction with another project at a very low cost.

Conclusions

As a connection to the Esat-BT network is available, the need for a radio backhaul is not clear.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. It is recommended that the fibre network be extended to cover more business areas in Naas town.

3. It is recommended that a collocation site close to Naas telephone exchange be used instead of the site in the Millennium Park. If necessary a shelter at the wireless site could be deployed to accommodate radio equipment.

4. The need for backhaul radio is not well justified and it is not recommended to develop the proposed Kildare regional radio network.

4.24 DCMNR2004 - 223 KILDARE

4.24.1 Applicant's summary description of the project

The key elements of the Kildare Project are;

- The construction of a Dark Fibre and a ring ducting network together with a Wireless MAN that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Collocation facility in the town that will act as a PoP and Interconnect point for national and global carriers;
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Collocation point providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will be possible via the proposed Fibre Network.

4.24.2 Evaluation Summary

Project Elements

1. The deployment of a 6,000 metre duct and fibre network in Kildare town.
2. The installation of drop connections to potential customer sites.
3. The deployment of a collocation centre.
4. The installation of a short radio mast on the Radio tower on Main Street.
5. The deployment of a backhaul radio link to City West.
6. The fibre network will be interconnected to the Esat-BT network.

Location

The planned network is located in Kildare town, Co Kildare.

Coverage

A total of 1,248 potential customers are located on the route of the fibre.

The applicant states that 85% of businesses in the town have line of sight to the wireless site.

Financial Issues

A section of the duct route 0.9km in length will be installed in conjunction with another project at a very low cost.

Conclusions

While interconnection with the backbone network of Esat-BT is provided for, the applicant suggests that a radio link backhaul is also suitable as it is more appropriate for use by wireless access service providers. The backhaul radio link is one element of a network proposed for the Kildare area.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The need for backhaul radio is not well justified and it is not recommended to develop the proposed Kildare regional radio network.

4.25 DCMNR2004 - 224 NEWBRIDGE

4.25.1 Applicant's summary description of the project

The key elements of the Newbridge Project are;

- The construction of a Dark Fibre and ducting network together with a Wireless Metropolitan Area Network (MAN) that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Collocation facility in the town that will act as a PoP and Interconnect point for national and global carriers;
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Collocation point providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will be possible via the proposed Fibre Network.

4.25.2 Evaluation Summary

Project Elements

1. The deployment of a 6,200 metre duct and fibre network in Newbridge town.
2. The deployment of a collocation centre.
3. The installation of drop connections at potential customer sites.
4. The installation of a short radio mast on a water tower.
5. The deployment of a backhaul radio link to City West.
6. The fibre network will be interconnected to the Esat-BT network.

Location

The planned network is located in Newbridge town, Co Kildare.

Coverage

The fibre route includes 950 potential business users as well as over 4,300 schools pupils. Several of the businesses on the route of the fibre are of significant size.

The applicant notes that 85% of businesses in the town have line of sight to the proposed wireless site.

Financial Issues

A section of the duct route 0.4km in length will be installed in conjunction with another project at a very low cost.

Social Aspects

The applicant notes that 10 schools are on the route of the fibre, with a total of over 4,300 of pupils.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The need for backhaul radio is not well justified and it is not recommended to develop the proposed Kildare regional radio network.

4.26 DCMNR2004 - 225 KILCULLEN

4.26.1 Applicant's summary description of the project

The key elements of the Kilcullen Project are;

- The construction of a Dark Fibre and ring ducting network together with a Wireless MAN that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Co-Location facility on the outskirts of the town that will act as a PoP and Interconnect point for national and global carriers;
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided on the high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Co-Location point providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will be possible via a backhaul circuit to CityWest and fibre to the nearest ESB POP.

4.26.2 Evaluation Summary

Project Elements

1. The deployment of a 2,350 metre duct and fibre network in Kilcullen town.
2. The deployment of a collocation centre.
3. The installation of drop connections at potential customer sites.
4. The installation of a short radio mast on a water tower.
5. The deployment of a backhaul radio link to City West.
6. The fibre network will be interconnected to ESB-Telecom network via a 4km backhaul fibre link.

Location

The planned network is located in Kilcullen town, Co Kildare.

Coverage

The fibre route passes a total of 82 potential customers as well as schools with a total of 1004 pupils.

The applicant indicates that 85% of the businesses in the town will have line of sight to the proposed wireless site.

Financial Issues

A section of the duct route 0.4km in length will be installed in conjunction with another project at a very low cost.

Social Aspects

The fibre network passes three schools with a total of over 1,000 pupils.

Conclusions

1. While the proposed project is technically sound, the catchment area of the fibre network is insufficient to justify the proposed investment.

Recommendations

1. The proposed fibre investment could only be justified if the applicant can demonstrate the potential of the town for further business development.

2. An alternative proposal based purely on FWA could be considered.

3. The proposal should be reviewed and resubmitted in a later call.

4.27 DCMNR2004 - 226 TRALEE

4.27.1 Applicant's summary description of the project

The key elements of the Tralee Project are:

- The construction of a Metropolitan Area Network (MAN) consisting of Dark Fibre, a ducting network together with a Wireless site that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, hospitals, County Council offices and libraries. Dark Fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Co-Location facility in the town centre that will act as a PoP and Interconnect point for national and global carriers;
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Collocation centre providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will be possible via the Fibre Network;
- Wireless MAN facilities on the Mish Mountains will potentially provide the opportunity for Fixed Wireless Access coverage of Castlemaine, Milltown, Farranfore and the surrounding area;
- Connectivity to the Chorus backbone network will be available at Mish Mountains via a wireless backhaul circuit.

4.27.2 Evaluation Summary

Project Elements

1. The deployment of a 7,000 metre duct and fibre network in Tralee town.
2. The deployment of a collocation centre.
3. The installation of drop connections at potential customer sites.
4. The installation of a wireless site, for use by FWA operators and to provide backhaul capacity.
5. The deployment of a backhaul radio link to Chorus.
6. The deployment of a fibre interconnect with Esat-BT

Location

The network is located in Tralee town, Co Kerry.

Coverage

There are 775 potential customers passed by the fibre route. In addition four schools are passed with a total pupil age of nearly 4,000.

The applicant states that 85% of businesses in the town have direct line of sight to the wireless site chosen.

Social Aspects

The network passes by the Tralee Institute of Technology and provides a spur to the County Buildings and to Tralee General Hospital.

In addition four schools are passed with a total pupil age of nearly 4,000.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

4.28 DCMNR2004 - 227 DINGLE

4.28.1 Applicant's summary description of the project

The key elements of the Dingle Project are:

- The construction of a Wireless Metropolitan Area Network (MAN) that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. The network will include the establishment of a Co-Location facility in the town Fire Station that will act as a PoP and Interconnect point;
- A Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment.
- Connectivity to the local eircom exchange can be provided via the Wireless MAN site.
- Connectivity to eircom, Esat BT and Irish Rail Fibre will be possible via the backhaul links to Tralee
- Backhaul connectivity to Tralee will require the use of a repeater site in Kilorglan. This site can also be used to delivery of Fixed Wireless Access services in the town of Kilorglan;
- Backhaul connectivity to Tralee via the Mish Mountains will provide the opportunity for Fixed Wireless Access services in Castlemaine, Milltown, Farranfore and the surrounding area;
- Access to the Chorus wireless backbone network via the repeater site above Tralee (Mish Mountains)

4.28.2 Evaluation Summary

Project Elements

1. The deployment of a collocation centre.
2. The installation of a wireless site at the Fire Station, for use by FWA operators and to provide backhaul capacity.
3. The deployment of a backhaul radio link to Tralee, via a water tower, Lispole mountain, Kilorglan town and Mish mountain.

Location

The network is located in Dingle town.

Coverage

The route of the fibre network is not clear.

The applicant states that 85% of businesses have line of sight to the wireless site.

Financial Issues

The operating cost of the network is very high, reaching over €170,000 annually after year 4 of the ten year plan.

Given the high recurring operating cost the project is particularly vulnerable to lower than anticipated demand.

It is unlikely that the project is financially viable.

Conclusions

The short fibre route mentioned in the proposal appears to relate to an interconnection that may be required in Tralee.

The multiple radio hops required to provide backhaul to Tralee, reduces the likely availability of the backhaul link.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The difficulty in providing backhaul to Dingle because of the terrain is recognised. However, the proposed solution is complex, operationally expensive and vulnerable to breakdown. While it is recommended that the project be supported, a careful study of the backhaul approach should be undertaken to determine whether the proposed method is optimum and whether any viable alternative exists.

4.29 DCMNR2004 - 228 LISTOWEL

4.29.1 Applicant's summary description of the project

The key elements of the Listowel Project are:

- The construction of a Wireless Metropolitan Area Network (MAN) that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health care facilities, County Council offices and libraries. The network will include the establishment of a Co-Location facility in the Dromin Water Works that will act as a PoP and Interconnect point;
- A Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment.
- Connectivity to the eircom exchange, Esat BT Fibre and future Irish Rail Fibre will be possible from one of the high sites located on the Wireless MAN.
- Backhaul connectivity to Tralee via Kerry Head will provide additional Fixed Wireless Access coverage for Listowel as well as Ballybunion, Ardfert, Ballyduff, Lixnaw and the surrounding areas.
- Backhaul connectivity to Tralee via the Mish Mountains will provide the opportunity for Fixed Wireless Access services in Castlemaine, Milltown, Farranfore and the surrounding area;
- Access to the Chorus wireless backbone network via the repeater site above Tralee (Mish Mountains)

4.29.2 Evaluation Summary

Project Elements

1. The installation of a wireless site for use by FWA operators and to provide backhaul capacity.

2. The deployment of a collocation centre.

3. The deployment of a backhaul radio link to Tralee, via a radio site at Kerry Head and Slieve Mish mountain.

Location

The network is located in Listowel town, Co Kerry.

Coverage

The applicant states that 85% of businesses in the town have line of sight to the wireless site.

Financial Issues

The operating cost of the network is very high, reaching over €123,000 annually after year 4, of the ten year plan. It is not clear that the project is financially viable.

Given the high recurring operating cost the project is particularly vulnerable to lower than anticipated demand.

Conclusions

The high operating cost in later years may render the project vulnerable to a lower than anticipated wireless demand.

The town has an Esat-BT backhaul connection at the railway station. However the plan does not make direct use of this interconnection point, providing instead a radio link via the mountains to Tralee.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. As the operating cost of such a network is high due to the cost of site rental and the cost of radio equipment replacement, it is recommended that the alternative approach of connecting the wireless site to the Esat-BT interconnection point be investigated. If this proves to be satisfactory, the proposed backhaul radio links to Tralee should be dropped from the plan.

4.30 DCMNR2004 - 229 KENMARE

4.30.1 Applicant's summary description of the project

The key elements of the Kenmare Project are:

- The construction of a Wireless Metropolitan Area Network (MAN) that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health care, County Council offices and libraries. The network will include the establishment of a Collocation facility on a high site above the town that will act as a PoP and Interconnect point;
- A Wireless MAN will operate from this site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment.
- Connectivity to the local eircom exchange can be provided via the Wireless MAN site
- Connectivity to eircom, Esat BT and Irish Rail Fibre will be possible via the backhaul links to Tralee.
- Backhaul connectivity to Tralee via the Mish Mountains will provide the opportunity for Fixed Wireless Access
- Services in Castlemaine, Milltown, Farranfore and the surrounding area;
- Access to the Chorus wireless backbone network via the repeater site above Tralee (Mish Mountains)

4.30.2 Evaluation Summary

Project Elements

1. The installation of a wireless site at the Council Yard for use by FWA operators and to provide backhaul capacity.

2. The deployment of a collocation centre.

3. The deployment of a backhaul radio link to Tralee, via Kilmurry, Mullaganish and Slieve Mish mountains.

Location

The network is located in Kenmare town, Co Kerry.

Coverage

The applicant states that 90% of businesses in the town have line of sight to the proposed wireless site.

Financial Issues

The operating cost of the network is very high, reaching over €160,000 annually after year 4, of the ten year plan.

Given the high recurring operating cost the project is particularly vulnerable to lower than anticipated demand.

It is not clear that the project is financially viable.

Conclusions

While the proposal is well constructed and technically viable, the difficulty of the terrain and the dependency on radio links has resulted in very high operating costs, rendering the project vulnerable to lower than anticipated demand and market prices.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. It is recommended that a review of the proposed backhaul approach be undertaken as an initial step in the detailed design and that the Department only proceed with the project if it is satisfied that the proposal is optimum and that no viable alternative exists.

4.31 DCMNR2004 - 230 CASTLEISLAND

4.31.1 Applicant's summary description of the project

The key elements of the Castleisland Project are:

- The construction of a Wireless Metropolitan Area Network (MAN) that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. The network will include the establishment of a Collocation facility in the Town Water Treatment Plant that will act as a PoP and Interconnect point for national and global carriers;
- A Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at high sites for the installation of wireless access equipment.
- Connectivity to the local eircom exchange can be provided via the Wireless MAN site
- Connectivity to eircom, Esat BT and Irish Rail Fibre will be possible via the backhaul links to Tralee.
- Backhaul connectivity to Tralee via the Mish Mountains will provide the opportunity for Fixed Wireless Access coverage of Castlemaine, Milltown, Farranfore and the surrounding area;
- Access to the Chorus wireless backbone network via the repeater site above Tralee (Mish Mountains)

4.31.2 Evaluation Summary

Project Elements

1. The installation of a wireless site at the Water Treatment Centre for use by FWA operators and to provide backhaul capacity.

2. The deployment of a collocation centre.

3. The deployment of a backhaul radio link to Tralee via Slieve Mish mountain.

Location

The network is located in Castleisland town, Co Kerry.

Coverage

The Applicant states that 90% of the businesses in the town have line of sight to the wireless site.

Financial Issues

The operating cost of the network is high, reaching over €100,000 annually after year 4, of the ten year plan.

Given the high recurring operating cost the project is particularly vulnerable to lower than anticipated demand.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

4.32 DCMNR2004 - 231 KILLARNEY

4.32.1 Applicant's summary description of the project

The key elements of the Killarney Project are;

- The construction of a Dark Fibre and ducting network together with a Wireless MAN that will incorporate all of the main business and technology parks, as well as community sites such as educational institutions, hospitals, County Council offices and libraries. Dark Fibre and sub-ducting on this Fibre Network will be made available to operators at attractive rates. The network will include the establishment of a Co-Location facility in the local Fire Station that will act as a PoP and Interconnect point;
- In addition to the Fibre Network a Wireless MAN will operate from a high site providing comprehensive coverage of the entire town and surrounding area. Space will be provided at the high site for the installation of wireless access equipment. The Wireless MAN will access the fibre network at the Collocation point providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to eircom, Esat BT and Irish Rail fibre will be possible via the Fibre Network.

4.32.2 Evaluation Summary

Project Elements

1. The deployment of a 7.0km duct and fibre network in Killarney town.
2. The installation of fibre drop connections.
3. The installation of a wireless site at the fire Station for use by FWA operators.
4. The deployment of a collocation centre.

Location

The network is located in Killarney town, Co Kerry.

Coverage

The applicant states that 90% of businesses in the town have line of sight to the proposed wireless site.

The route of the fibre network covers part of the town of Killarney, there are potentially 935 customers passed by the route.

Social Aspects

Seven educational institutions with a total of 2,548 students are passed by the fibre route.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

4.33 DCMNR2004 - 232 NENAGH

4.33.1 Summary description of the project

The key elements of the Nenagh Broadband Network project are:

- The construction of a dark fibre and ducting ring network around Nenagh that will incorporate all of the existing and planned business and technology areas, as well as community sites such as educational institutions, hospitals and libraries. Dark fibre and sub-ducting on this ring will be made available to operators at rates defined by the MSE.
- The construction of a resilient fibre backhaul route from Nenagh to a national carrier network.
- The network will include the establishment of a Co-Location facility in Nenagh that will act as a PoP and Interconnect point for carriers. Space in this co-location facility will be made available to operators and other users.
- The construction of a wireless site located at the Shannon Development-owned Lisbunny Industrial Estate. Space will be leased on this mast.

The objective of this project is to develop high-speed, open access, resilient broadband infrastructure to address the perceived medium to long term requirements of network operators, businesses and organisations in Nenagh, with the aim of supporting inward investment, indigenous companies and social development. Shannon Broadband has planned this project to reduce to a minimum project implementation costs and uncertainties.

4.33.2 Evaluation Summary

Project Elements

1. The deployment of a 10.8 km duct and fibre network in Nenagh town.

2. The installation of fibre drop connections.

3. The installation of a resilient fibre backhaul link to ESB-Telecom's backbone network.

4. The installation of a wireless site in Lisbunny industrial estate for use by FWA operators.

5. The deployment of a collocation centre.

Location

The network is located in Nenagh town, Co Tipperary.

Coverage

The Applicant states that 90% of businesses in the town have line of sight to the wireless site.

The route of the fibre network covers a significant part of the town of Nenagh. It is estimated that 1,190 potential customers are on the route of the fibre.

Financial Issues

The proposed wireless mast space price is high at €8,500 per year, relative to other projects.

Project management costs are high.

Social Aspects

The proposed route of the fibre network encompasses Nenagh General hospital five schools and the town library.

A total student population of 2,237 is within reach of the fibre network.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The fibre route should be reviewed to reduce cost, perhaps placing more emphasis on the FWA to service certain areas.

4.34 DCMNR2004 - 233 BALLINASLOE

4.34.1 Applicant's summary description of the project

Ballinasloe Metropolitan Area Network
To provide Two Rings of Duct, 96 Fibre cable with access chambers through the town of Ballinasloe to enable Broadband access to significant areas of the town.

4.34.2 Evaluation Summary

Project Elements

1. The deployment of a 15.2 km duct and fibre network.

2. The installation of a collocation cabin.

3. The provision of backbone interconnection via Esat-BT's networks and the Western Digital Corridor.

Location

The network is located in Ballinasloe, Co Galway.

Coverage

The network covers an extensive part of Ballinasloe town. A total of 1,935 potential customers are within reach of the fibre network.

Financial Issues

Some errors are apparent in the operating costs, which may have been overestimated as a result.

Some errors are apparent in the calculation of revenue, however these should not impact the overall bottom line figure.

Social Aspects

The fibre network passes several schools, hospitals and other community services.

Conclusions

While the proposal is technically sound some uncertainties in the business model reflected negatively on the evaluation.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The fibre route should be reviewed to reduce cost significantly, perhaps considering FWA to service certain areas.

4.35 DCMNR2004 - 234 CLIFDEN

4.35.1 Applicant's summary description of the project

Clifden Metropolitan Area Network
To provide a ring of duct, 96 fibre cable with access chambers through the town of Clifden to enable broadband access to significant areas of the town together with a radio backhaul link to the Galway MAN.

4.35.2 Evaluation Summary

Project Elements

1. The deployment of a 3.2 km duct and fibre network.
2. The installation of a collocation cabin.
3. The provision of backbone radio link to Galway via, Carraroe and Tonabrackey.

Location

The network is located in Clifden, Co Galway

Coverage

The network covers an extensive part of Clifden town. A total of 636 potential users are passed by the network. A number of potential users appear to be tourists, visiting the area.

No information on wireless coverage was provided.

Financial Issues

Project management costs are high.

No prices or revenue estimates for backhaul circuits were provided.

Conclusions

There are a number of uncertainties contained in the proposal:

- While space on the wireless mast will be made available for rent, the applicant did not provide an estimate of the coverage of the site.
- Information on the propagation path profile from Clifden to Galway was not available.
- No revenue estimates were made for the cost of backhaul circuits and no prices were indicated.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.
2. The detailed design should include a significant review of the infrastructure to reduce cost, perhaps by concentrating on a FWA solution in the town.
3. The viability of the link paths needs to be ascertained as a first step in the design.
4. The project management estimates are high and should not be accepted in the grant agreement.

4.36 DCMNR2004 - 235 ATHENRY

4.36.1 Applicant's summary description of the project

Athenry Metropolitan Area Network
To provide two rings of duct, 98 fibre cable with access chambers, collocation facility through the town of Athenry to enable broadband access to significant areas of the town.

4.36.2 Evaluation Summary

Project Elements

1. The deployment of a 5.5 km duct and fibre network.
2. The installation of a collocation cabin.
3. The provision of interconnection with the Esat-BT backbone network.

Location

The network is located in Athenry, Co Galway.

Coverage

The network covers a extensive part of Athenry town with a total of 1,314 potential users on the route of the fibre.

Financial Issues

Project management costs are high.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.
2. The fibre route should be reviewed to reduce cost, perhaps considering FWA to service certain areas.
3. The project management estimates are too high and should not be accepted in the grant agreement.

4.37 DCMNR2004 - 236 FURBO

4.37.1 Applicant's summary description of the project

Furbo Broadband Network
To provide infrastructure to enable the deployment of wireless broadband in the area of Furbo.

4.37.2 Evaluation Summary

Project Elements

1. The deployment of a wireless site with a radio mast in the town.
2. The development of a wireless site in Mervue in Galway City.
3. The deployment of radio backhaul equipment at Furbo, Tonabrackey and Galway

Location

The network is located in Furbo, Co Galway.

Coverage

The radio coverage is not clear as no documentation was provided. However the Applicant states that 85% of businesses in the area of Furbo, Barna and Spidal have direct line of sight to the wireless site.

It is not planned to offer the wireless site to FWA operators, or at least no revenue is anticipated from this source.

Financial Issues

The financial surplus is very low at just €8,000 over a ten year period, even assuming customers can be served in Barna and Spidal. The project does not appear to be financially viable.

Project management costs are high.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise. However, as the financial viability of the project is doubtful, the detailed design should review the solution options with the objective of reducing cost. If no alternative model is apparent, consideration should be given to the reallocation of project funding.
2. The project management estimates are too high and should not be accepted in the grant agreement.

4.38 DCMNR2004 - 237 CASTLEREA

4.38.1 Applicant's summary description of the project

Castlerea Metropolitan Area Network
The provision of two rings of duct, including 96 fibre cable, with access chambers, through Castlerea to enable broadband access to significant areas of the town.

4.38.2 Evaluation Summary

Project Elements

1. The deployment of a 4.5km duct and fibre route in Castlerea town.
2. The installation of a collocation centre.
3. The network will be interconnected to Esat-BT's backbone network.

Location

The network is entirely within Castlerea town, Co Roscommon.

Coverage

The duct and fibre network provided extensive coverage of business areas in Castlerea town. The fibre network passes 752 potential customers

Financial Issues

Project management costs are high.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

4.39 DCMNR2004 - 238 LONGFORD

4.39.1 Applicant's summary description of the project

Longford County Council proposes to build a Metropolitan Area Network (MAN) throughout Longford town, directly improving the availability of fibre diversity and dark fibre. The network will also enable the increased deployment of POP sites by third parties.

The construction of the MAN would incorporate:

- Leveraging planned civil projects that are due to take place in the next two years
- Utilising existing assets including utilities networks and existing ductwork and civil works (trench sharing)
- Construction of new duct systems

The proposed project would link industrial estates, digital parks, telecommunications exchanges, the Longford Co-Location, Cable TV digital head ends, schools, hospitals, local government offices and public libraries to existing Telecommunications carriers.

Longford County Council propose to promote the economic development of Longford town by providing open access to the majority of the network for commercial customers and providing interconnect points for other county and regional networks at the town boundaries.

It is proposed to facilitate public service delivery of Internet and other data services by reserving a part of the network for the interconnection of local government offices, libraries, hospitals and education establishments.

4.39.2 Evaluation Summary

Project Elements

1. The development of a 16.3km duct and fibre network in Longford.

2. The development of a collocation centre.

Location

The network is located entirely in Longford.

Coverage

The route of the network passes a total of 2,473 potential users.

Financial Issues

The financial projections are optimistic in year 10 for example there are assumed to be 18 network operators renting fibre each taking a length of fibre equivalent to twice the length of the network. However this is to some degree balanced by high estimates of operating costs.

Conclusions

The project is not viable without a backhaul connection. While Longford is on the railway line, Esat-BT's network currently does not include Longford.

The Applicant noted that an additional backbone connection to ESB-telecom may be possible if a planned development of the ESB's electricity grid includes fibre links. The closest point of the network to Longford town is at Richmond about 4km from the town.

The applicant states that a local Cable TV company, Crossan Cable, has fibre in the town but does not offer dark fibre for rent. Crossan Cable has received grant aid in a previous project to support the development of broadband services in the town using cable modem technology.

Recommendations

1. It is recommended that the project be considered for funding, subject to its detailed design and the procurement exercise.

2. The project should include a backhaul connection preferably with a fibre connection, or, as an alternative, using radio links.

3. The applicant notes that the fibre route was carefully designed to complement the existing network of Cable TV company, Crossan Cable. However as Crossan does not appear to offer dark fibre on its network, there is no requirement to restrict the route of the open access network to avoid overlap. The route should be reviewed in this light, and adjusted if necessary.

4.40 DCMNR2004 - 239 MOUNTMELLICK

4.40.1 Applicant's summary description of the project

Laois County Council proposes to build a Metropolitan Area Network (MAN) throughout Mountmellick Town, directly improving the availability of fibre diversity and dark fibre. The network will also enable the increased deployment of POP sites by third parties.

The construction of the MAN would incorporate:

- Leveraging planned civil projects that are due to take place in the next two years
- Utilising existing assets including utilities networks and existing ductwork and civil works (trench sharing)
- Construction of new duct systems

The proposed project would link industrial estates, telecommunications exchanges, the Laois Co-Location site, schools, hospitals, local government offices and public libraries to existing Telecommunications carriers.

Laois County Council propose to promote the economic development of Mountmellick Town by providing open access to the majority of the network for commercial customers and providing interconnect points for other county and regional networks at the town boundaries.

It is proposed to facilitate public service delivery of Internet and other data services by reserving a part of the network for the interconnection of local government offices, libraries, hospitals and education establishments.

4.40.2 Evaluation Summary

Project Elements

1. The development of a 4.5km duct and fibre network in Mountmellick.

2. The development of a collocation centre.

3. The deployment of a wireless site and radio backhaul equipment.

A possible wireless backhaul connection to the ESB-T network is proposed but not included in the cost estimates.

Location

The network is located entirely in Mountmellick, Co Laois.

Coverage

The network coverage is limited with a total of 191 PC users many of these working in small organisations.

While a wireless site is proposed, it is not planned to offer the site to fixed wireless access operators, and no map of the coverage area was provided.

Financial Issues

The proposed tariffs do not correspond to the MSE charges and would have to be adjusted to the generally high tariffs. This could impact the take-up of the network. No pricing information for the wireless site or for backhaul radio connection was provided.

The revenue projections are optimistic with a projection of 18 customers using the collocation centre by year 10. It is also assumed that by year ten each customer is renting 8.5km of fibre, nearly twice the length of the network.

The operating cost estimates are very high averaging over €150,000 per year over ten years. This cost does not take into account radio equipment replacement costs which appear to have been omitted. However these high cost may be balanced against equally high revenue estimates.

Conclusions

The density of PC users appears to be very low, with few organisations apart from schools with more than 10 pc users.

The radio backhaul link planning appears to be an early stage and uncertainties exist regarding the radio path.

In general the plan does not appear to be well developed.

Recommendations

1. It is recommended that the basis of the project be reconsidered by the applicant and resubmitted in a later call.

4.41 DCMNR2004 - 240.1 ENNISKERRY

4.41.1 Applicant's summary description of the project

Metropolitan Area Network in the town of Enniskerry including a Co-Location facility, interconnection with Eircom and Esat and installation of a number of primary customer connections. The project also includes for a wireless site in the town. The approximate length of the Enniskerry MAN is 3.4km.

4.41.2 Evaluation Summary

Project Elements

1. The deployment of a 3.4km duct and fibre network in Enniskerry town.
2. The deployment of a collocation centre.
3. The interconnection of the network to ESB-Telecom's backbone network.
4. The development of a wireless site.

Location

The network is located in Enniskerry town, Co Wicklow.

Coverage

Extensive fibre coverage of the town is provided. A total of 76 potential users of the network are noted in the town, however not all are within reach of the fibre network.

The applicant was not in a position to estimate the number of businesses with line of sight of the proposed wireless site. However from the drawings provided, it is likely that over 50% of the town is covered.

Conclusions

It is unlikely that the town will generate sufficient demand to justify a fibre network of the size proposed by the applicant.

Recommendations

1. The use of a fibre network appears to be inappropriate to the size of the town and the number of potential customers.
2. It is recommended that the project be reconsidered, and resubmitted in a later call.

4.42 DCMNR2004 - 240.2 KILCOOLE

4.42.1 Applicant's summary description of the project

Metropolitan Area Network in the town of Kilcoole including a Co-Location facility, interconnection with Eircom and Esat and installation of a number of primary customer connections. The project also includes for a wireless site in the town. The approximate length of the Kilcoole MAN is 4.3km.

4.42.2 Evaluation Summary

Project Elements

1. The deployment of a 4.3km duct and fibre network and collocation centre in Kilcoole town. The interconnection of the network to Esat-BT and ESB-Telecom's networks.

Location

The network is located in Kilcoole town, Co Wicklow.

Coverage

Extensive fibre coverage of the town is provided. A total of 103 potential customers are in the town, but the proposed fibre network will not reach all of these.

The coverage of the wireless site was not identified by the applicant however from the drawing provided, it appears that at least 50% of the town would be served.

Conclusions

It is unlikely that the town will generate sufficient demand to justify a fibre network of the size proposed by the applicant.

Recommendations

1. The use of a fibre network appears to be inappropriate to the size of the town and the number of potential customers.

2. It is recommended that the project be reconsidered, and resubmitted in a later call.

4.43 DCMNR2004 - 241.1 SKERRIES

4.43.1 Applicant's summary description of the project

Metropolitan Area Network in the town of Skerries including a Co-Location facility, interconnection with Eircom and Esat and installation of a number of primary customer connections. The project also includes for a wireless site in the town. The approximate length of the Skerries MAN is 8.8km.

4.43.2 Evaluation Summary

Project Elements

1. The deployment of a 8.8km duct and fibre network in Skerries town.
2. The development of a collocation centre.
3. The interconnection of the MAN to Esat-BT's backbone network.

Location

The network is located in Skerries town, Co Dublin.

Coverage

Extensive fibre coverage of the town is provided. A total of 302 potential customers of the network is indicated. However many of the organisations are small and demand is likely to be low.

Conclusions

The size of the project appears to be large relative to the potential demand. The town is not particularly industrialised.

Recommendations

1. It is recommended that the project basis be reconsidered and an alternative solution developed that is more appropriate to the size and level of potential demand in the town.
2. The proposal should be resubmitted in a later call.

4.44 DCMNR2004 - 241.2 DONABATE

4.44.1 Applicant's summary description of the project

Metropolitan Area Network in the town of Donabate including a Co-Location facility, interconnection with Eircom and Esat and installation of a number of primary customer connections. The project also includes for a wireless site in the town. The approximate length of the Donabate MAN is 7.1km.

4.44.2 Evaluation Summary

Project Elements

1. The deployment of a 7.1km duct and fibre network in Donabate town.
2. The deployment of a collocation centre.
3. The interconnection of the MAN to Esat-BT's backbone network.

Location

The network is located in Donabate town, Co Dublin.

Coverage

Extensive fibre coverage of the town is provided. A total of 200 potential customers are on the route of the fibre, however the majority are in small organisations and the demand is likely to be low.

Conclusions

The project size and cost appears to be inappropriate to the potential demand in the town.

Recommendations

1. It is recommended that the project should not proceed on the proposed basis, but that the technical plan be reconsidered and a proposal more appropriate to the likely demand be considered.
2. The proposal should be resubmitted in a later call.

5. BUDGETARY IMPACT OF RECOMMENDATIONS

The cumulative cost of the recommendations, grouped by the evaluation ranking, is given in Table 5 below to illustrate the rate of budget consumption should they proceed on a ranked basis. The "Cumulative Grant Sought" is based on the applications. In reality, of course, new estimates will be submitted following the detailed design and procurement exercise.

REF NO.	PROJECT TITLE	Total Project Cost MEuro	Grant Sought MEuro	Cumulative Grant Sought MEuro
DCMNR2004 - 213	Navan	5.548	4.993	4.993
DCMNR2004 - 231	Killarney	1.871	1.684	6.677
DCMNR2004 - 226	Tralee	1.942	1.748	8.425
DCMNR2004 - 204	Midleton	1.762	1.585	10.01
DCMNR2004 - 212	Trim	4.772	4.295	14.305
DCMNR2004 - 224	Newbridge	1.822	1.639	15.944
DCMNR2004 - 203	Bantry	0.435	0.392	16.336
DCMNR2004 - 206	Cobh, Carrigaline, Ringaskiddy, Passage West	5.530	4.965	21.301
DCMNR2004 - 232	Nenagh	2.991	2.692	23.993
DCMNR2004 - 222	Sallins	1.788	1.609	25.602
DCMNR2004 - 237	Castlerea	1.594	1.435	27.037
DCMNR2004 - 211	Wireless Backbone	0.687	0.618	27.655
DCMNR2004 - 235	Athenry	1.999	1.789	29.444
DCMNR2004 - 215	Tramore	0.726	0.654	30.098
DCMNR2004 - 209	Kinsale	0.584	0.526	30.624
DCMNR2004 - 223	Kildare	1.851	1.666	32.29
DCMNR2004 - 205	Mitchelstown	0.502	0.452	32.742
DCMNR2004 - 202	Claremorris	3.607	3.247	35.989
DCMNR2004 - 218.1	Ballybofey/Stranorlar	2.159	1.943	37.932
DCMNR2004 - 208	Skibbereen	0.546	0.492	38.424
DCMNR2004 - 207	Blarney	1.567	1.41	39.834
DCMNR2004 - 230	Castleisland	0.493	0.443	40.277
DCMNR2004 - 210	Youghal	0.796	0.717	40.994
DCMNR2004 - 233	Ballinasloe	3.550	3.195	44.189
DCMNR2004 - 228	Listowel	0.581	0.523	44.712
DCMNR2004 - 238	Longford	3.659	3.293	48.005
DCMNR2004 - 227	Dingle	0.802	0.722	48.727
DCMNR2004 - 229	Kenmare	0.703	0.633	49.36
DCMNR2004 - 221	Maynooth	2.608	2.347	51.707
DCMNR2004 - 236	Furbo	0.610	0.549	52.256
DCMNR2004 - 219	North West Cross Border Digital Corridor	3.557	3.202	55.458
DCMNR2004 - 234	Clifden	1.399	1.259	56.717
DCMNR2004 - 220	Rathangan	0.424	0.382	57.099
DCMNR2004 - 216	Clones	3.487	3.138	60.237
DCMNR2004 - 225	Kilcullen	1.367	1.231	61.468
DCMNR2004 - 218.2	Bundoran	2.562	2.306	63.774
DCMNR2004 - 201	Knock Airport	1.831	1.648	65.422
DCMNR2004 - 217	Castleblaney	1.722	1.55	66.972
DCMNR2004 - 214	Cahir	0.770	0.693	67.665
DCMNR2004 - 240.2	Kilcoole	1.725	1.552	69.217
DCMNR2004 - 241.1	Skerries	1.993	1.794	71.011
DCMNR2004 - 239	Mountmellick	1.448	1.303	72.314
DCMNR2004 - 241.2	Donabate	1.706	1.535	73.849
DCMNR2004 - 240.1	Enniskerry	1.017	0.916	74.765
	Totals ->	**83.093**	**74.765**	**74.765**

Table 5 - Cumulative Grant by town ranking

A further constraint on the budget may be the wish to accommodate the Cork and Kerry backbone networks, together with their recommended towns in one Grant Agreement. If the average mark for these two groupings is used, the ranking table and cumulative budget is as follows:

REF NO.	PROJECT TITLE	Total Project Cost MEuro	Grant Sought MEuro	Sum of Grant Sought MEuro
DCMNR2004 - 213	Navan	5.548	4.993	4.993
DCMNR2004 - 212	Trim	4.772	4.295	9.288
DCMNR2004 - 224	Newbridge	1.822	1.639	10.927
DCMNR2004 - 232	Nenagh	2.991	2.692	13.619
DCMNR2004 - 222	Sallins	1.788	1.609	15.228
DCMNR2004 - 237	Castlerea	1.594	1.435	16.663
DCMNR2004 - 235	Athenry	1.999	1.789	18.452
DCMNR2004 - 204	Midleton	1.762	1.585	20.037
DCMNR2004 - 203	Bantry	0.435	0.392	20.429
DCMNR2004 - 206	Cobh, Carrigaline, Ringaskiddy, Passage West	5.530	4.965	25.394
DCMNR2004 - 211	Wireless Backbone	0.687	0.618	26.012
DCMNR2004 - 209	Kinsale	0.584	0.526	26.538
DCMNR2004 - 205	Mitchelstown	0.502	0.452	26.99
DCMNR2004 - 208	Skibbereen	0.546	0.492	27.482
DCMNR2004 - 207	Blarney	1.567	1.41	28.892
DCMNR2004 - 210	Youghal	0.796	0.717	29.609
DCMNR2004 - 215	Tramore	0.726	0.654	30.263
DCMNR2004 - 223	Kildare	1.851	1.666	31.929
DCMNR2004 - 231	Killarney	1.871	1.684	33.613
DCMNR2004 - 226	Tralee	1.942	1.748	35.361
DCMNR2004 - 230	Castleisland	0.493	0.443	35.804
DCMNR2004 - 228	Listowel	0.581	0.523	36.327
DCMNR2004 - 227	Dingle	0.802	0.722	37.049
DCMNR2004 - 229	Kenmare	0.703	0.633	37.682
DCMNR2004 - 202	Claremorris	3.607	3.247	40.929
DCMNR2004 - 218.1	Ballybofey/Stranorlar	2.159	1.943	42.872
DCMNR2004 - 233	Ballinasloe	3.550	3.195	46.067
DCMNR2004 - 238	Longford	3.659	3.293	49.36
DCMNR2004 - 221	Maynooth	2.608	2.347	51.707
DCMNR2004 - 236	Furbo	0.610	0.549	52.256
DCMNR2004 - 219	North West Cross Border Digital Corridor	3.557	3.202	55.458
DCMNR2004 - 234	Clifden	1.399	1.259	56.717
DCMNR2004 - 220	Rathangan	0.424	0.382	57.099
DCMNR2004 - 216	Clones	3.487	3.138	60.237
DCMNR2004 - 225	Kilicullen	1.367	1.231	61.468
DCMNR2004 - 218.2	Bundoran	2.562	2.306	63.774
DCMNR2004 - 201	Knock Airport	1.831	1.648	65.422
DCMNR2004 - 217	Castleblaney	1.722	1.55	66.972
DCMNR2004 - 214	Cahir	0.770	0.693	67.665
DCMNR2004 - 240.2	Kilcoole	1.725	1.552	69.217
DCMNR2004 - 241.1	Skerries	1.993	1.794	71.011
DCMNR2004 - 239	Mountmellick	1.448	1.303	72.314
DCMNR2004 - 241.2	Donabate	1.706	1.535	73.849
DCMNR2004 - 240.1	Enniskerry	1.017	0.916	74.765
	Totals ->	**83.093**	**74.765**	**74.765**

Table 5 - Cumulative Grant by backbone network and town ranking

6. CONCLUDING REMARKS

The 41 applications submitted covered 45 towns and 3 regional networks. Of these, 35 towns and 2 regional networks are recommended to proceed to the detailed design and the procurement stage (ie tender request, evaluation and supplier selection, prior to grant agreement or contract). All proposals are likely to be refined during the detailed design stage, some more significantly than others. In all cases, the underlying assumptions which impact technical and financial viability should be reviewed and tested during these next stages of the Programme.

For the 10 towns and one network which have not been recommended to proceed to the detailed design and the procurement stage, comments have been made in the report which may assist their redesign and submission in a later Call in the Programme.

END