

Displacement: The displacement concept refers to the extent to which the project would cause other activities that might have contributed to achieving the desired benefits to be cancelled or reduced.

Deadweight: The deadweight concept refers to the likelihood that an outcome or benefit would have occurred without the project or programme. In the context of EU funds, deadweight means that the EU aid would not be required to achieve a particular outcome or the market would have supported a proposed investment without EU aid.

3.1.2 Compliance with November 2000 Communication to DG Competition

It is confirmed that the Regional Broadband Programme Phase II is in accordance with the Department's Communication of November 2000 to DG Competition. There is no notification of a State Aid under Article 87.1 as trade between member states is not affected.

3.2 RECOMMENDATION GUIDELINE

Subject to budgetary and other constraints, it is recommended that applications scoring 50 and above in the overall 'Sum Marking' column in Table 4 be considered for funding.

Those projects recommended to go forward to detailed design and procurement exercises include some which can do so with little modification to the design concepts submitted while others should consider and take into account the recommendations made in the individual project reviews in Section 5.

The consensus evaluators' opinion for those projects not recommended to proceed largely as submitted, is that they require a more fundamental review and redesign in order to proceed past this stage of the process. Indications of areas to be addressed are given in the evaluation commentaries on these projects in Section 5. Although two applications scored less than 50, recommendations are made which, if accepted by the applicants, should allow the project proposals to be adequately refined during a the design phase and so avoid the need to submit a new application. Also, where it is recommended that the fibre elements of a project be dropped and that it should go ahead as a wireless only project, it is generally proposed that the project proceed to the next stage rather than submit a new proposal.

Table 2 Technical Overview

REF NO.	PROJECT TITLE	Towns	Fibre [km]	Colo	Wless Site	Mast/structure	Backhaul Radio	Backhaul fibre [km]	Total Project Cost MEuro	Grant Sought MEuro
DCMNR2005-203	Mountmellick (re-submission)	1	4.5	✓	✓	✓	✓	-	€ 1.45	€ 1.31
DCMNR2005-305	Moate	1	4.6	✓	-	-	-	-	€ 1.22	€ 1.10
DCMNR2005-306	Portarlinton	1	9.5	✓	-	-	-	-	€ 2.35	€ 2.11
DCMNR2005-307	Charleville	1	3.9	✓	✓	✓	✓	1.2	€ 1.59	€ 1.43
DCMNR2005-308	Dunmanway	1	3.9	✓	✓	✓	✓	-	€ 1.29	€ 1.16
DCMNR2005-309	Fermoy	1	8.6	✓	✓	✓	✓	-	€ 2.27	€ 2.04
DCMNR2005-310	Kanturk	1	4.1	✓	✓	✓	✓	-	€ 1.37	€ 1.23
DCMNR2005-314	Clara	1	4.5	✓	✓	✓	✓	-	€ 0.99	€ 0.89
DCMNR2005-315	Edenderry	1	7.0	✓	✓	✓	✓	-	€ 1.42	€ 1.28
DCMNR2005-321	Clane	1	7.4	✓	✓	✓	✓	5	€ 2.37	€ 2.13
DCMNR2005-322	Monasterevin	1	2.3	✓	✓	✓	✓	-	€ 0.86	€ 0.77
DCMNR2005-323	Prosperous	1	2.3	✓	✓	✓	✓	4.5	€ 0.95	€ 0.85
DCMNR2005-324	Kilcock	1	5.3	✓	✓	✓	✓	6	€ 1.95	€ 1.75
DCMNR2005-325	Kilcullen (re-submission)	1	2.4	✓	✓	✓	✓	4	€ 1.18	€ 1.06
DCMNR2005-326	Banagher	1	4.2	✓	✓	✓	✓	-	€ 1.17	€ 1.05
	Total	15	74					21	€ 22.41	€ 20.17



Table 3 - Marks awarded

REF NO.	APPLICANT	PROJECT TITLE	Type of Proposed Infrastructure & Services	Geographic Coverage	Pricing	Demonstration Effects	Impact on Competitiveness & Innovation	Value for Money	Economic & Financial Viability + Matching Funds	Technical & Planning Viability	Addnl. Displacement	Performance Indicators	Promote access, Remove barriers	Educations, Community, Voluntary etc	Services in Deficit Areas	Sum Marking
		Maximum Mark = Weight =>	5	5	5	5	10	20	10	10	7.5	7.5	2	3	10	100.00
CMNR2005-202	Laois County Council	Midwestlink	3.33	3.00	3.67	3.17	3.67	9.33	6.33	6.67	4.33	4.33	1.17	1.17	6.67	54.33
CMNR2005-205	Wick County Council	Moate	2.17	2.17	3.33	2.33	3.00	7.67	3.67	5.33	5.67	4.33	1.00	2.00	6.00	48.67
CMNR2005-206	Laois County Council	Portliffon	2.67	3.00	3.67	3.00	3.33	7.33	4.33	5.67	6.33	4.33	1.00	1.33	6.50	51.50
CMNR2005-207	Cork County Council	Charleville	4.00	3.33	3.67	3.00	5.40	11.33	5.33	5.67	5.00	4.67	1.33	1.33	5.00	59.33
CMNR2005-208	Cork County Council	Dunmanway	4.17	3.17	3.67	3.00	4.33	12.33	5.33	6.00	4.60	4.33	1.33	0.67	5.00	50.60
CMNR2005-209	Cork County Council	Ferney	4.00	3.67	3.67	3.00	4.67	12.33	5.33	6.00	4.60	4.33	1.00	1.33	5.33	59.60
CMNR2005-310	Cork County Council	Kanturk	3.67	3.33	3.67	3.00	3.67	11.67	5.33	5.33	4.50	4.33	1.00	1.17	5.33	56.17
CMNR2005-314	Offaly County Council	Clia	3.50	3.00	3.67	3.00	3.50	10.67	4.67	4.67	5.17	4.67	1.00	1.00	5.67	64.50
CMNR2005-315	Offaly County Council	Ederberry	3.67	3.17	3.67	3.33	3.67	12.33	5.00	5.33	4.33	4.33	0.67	1.00	5.67	56.17
CMNR2005-321	Kildare County Council	Clare	4.00	3.67	3.67	3.67	4.67	9.33	4.33	5.00	3.67	4.33	1.17	2.33	3.60	53.17
CMNR2005-322	Kildare County Council	Monasterevin	3.50	3.00	3.67	3.00	4.00	12.00	5.00	5.67	3.67	4.33	1.17	2.33	3.50	64.83
CMNR2005-323	Kildare County Council	Pinsparous	2.83	2.50	3.67	2.67	3.33	6.33	3.67	4.00	5.33	4.33	1.00	2.33	3.50	45.50
CMNR2005-324	Kildare County Council	Kilcock	4.00	3.60	3.33	3.00	5.00	11.67	5.33	4.33	3.67	4.33	1.00	2.33	2.33	53.83
CMNR2005-325	Kildare County Council	Kilcullen	3.33	3.00	3.67	3.17	4.33	9.67	5.33	5.67	3.67	4.33	1.17	2.33	3.50	53.17
CMNR2005-326	Offaly County Council	Banagher	3.33	3.00	3.67	3.17	4.67	10.33	4.67	5.67	4.00	4.33	1.17	3.33	6.17	58.67

Table 4 - Applications Ranked

REF NO.	APPLICANT	PROJECT TITLE	Type of Proposed Infrastructure & Services	Geographic Coverage	Pricing	Demonstration Effects	Impact on Competitiveness & Innovation	Value for Money	Economic & Financial Viability + Matching Funds		Technical & Planning Viability	Addnl. Deadweig Int. Displacem ent	Performance Indicators	Promote access, Remove barriers	Educations, Community, Voluntary etc	Services in Deficit Areas	Sum Marking
									10	10							
				5	5	5	10	20	10	7.5	10	7.5	10	2	3	10	100.00
		Maximum Mark = Weight =>															
DCMNR2005-304	Cork County Council	Ferry	4.00	3.83	3.67	3.00	4.63	12.33	5.33	5.00	4.33	4.60	4.33	1.00	1.33	5.33	58.50
DCMNR2005-307	Cork County Council	Charleville	4.00	3.33	3.67	3.00	5.50	11.33	5.33	5.87	4.67	5.00	4.67	1.33	1.50	5.00	59.33
DCMNR2005-308	Cork County Council	Dunmahony	4.17	3.17	3.67	3.00	4.33	12.33	5.33	6.00	4.50	4.50	4.33	1.33	0.83	5.00	58.00
DCMNR2005-325	Offaly County Council	Banagher	3.33	3.00	3.67	3.17	4.67	10.33	4.83	5.63	4.33	4.00	4.33	1.17	2.33	5.17	56.83
DCMNR2005-310	Cork County Council	Kanturk	3.53	3.33	3.67	3.00	3.67	11.67	5.33	5.33	4.33	4.50	4.33	1.00	1.17	5.33	56.17
DCMNR2005-315	Offaly County Council	Floodfield	3.50	3.17	3.67	3.33	3.67	12.33	5.00	5.33	4.33	4.33	4.33	0.67	1.00	5.83	56.17
DCMNR2005-322	Kildare County Council	Monasterevin	3.50	3.00	3.67	3.00	4.00	12.00	5.00	5.67	3.67	3.67	4.33	1.17	2.33	5.60	54.83
DCMNR2005-314	Offaly County Council	Clara	3.50	3.00	3.67	3.00	3.50	10.67	4.67	4.83	4.67	3.67	4.67	1.00	1.00	5.83	54.50
DCMNR2005-324	Laois County Council	Mountmellick	3.33	3.00	3.67	3.17	3.67	9.33	5.33	5.33	4.33	4.33	4.33	1.17	1.17	5.50	54.33
DCMNR2005-321	Kildare County Council	Kilcock	4.00	3.50	3.33	3.00	5.00	11.67	5.33	4.33	3.67	3.67	4.33	1.00	2.33	2.33	53.83
DCMNR2005-328	Kildare County Council	Clane	4.00	3.50	3.67	3.67	4.67	9.33	4.33	5.00	3.67	3.67	4.33	1.17	2.33	3.50	53.17
DCMNR2005-326	Kildare County Council	Kilsken	3.33	3.00	3.67	3.17	4.33	9.67	5.33	5.67	3.67	3.67	4.33	1.17	2.33	3.50	53.17
DCMNR2005-305	Westmeath County Council	Penningshall	2.67	3.00	3.67	3.00	3.33	7.33	4.33	5.67	5.33	5.33	4.33	1.00	1.00	6.50	51.50
DCMNR2005-306	Westmeath County Council	McGrate	2.17	2.17	3.33	2.33	3.00	7.67	3.67	5.33	5.67	5.67	4.33	1.00	2.00	6.00	48.67
DCMNR2005-323	Kildare County Council	Prosperous	2.83	2.50	3.67	2.67	3.33	6.33	3.67	4.00	4.00	5.33	4.33	1.00	2.33	3.50	45.50



4. GENERAL RECOMMENDATIONS AND PROJECT RECOMMENDATIONS

A brief description of each application is given in Section 5 below together with a commentary on the outcome of its evaluation. The individual application reviews are preceded by a number of general observations and recommendations arising from consideration of the applications as a group.

GENERAL OBSERVATIONS and RECOMMENDATIONS

Call Criteria

1. This report covers the evaluation of projects that were submitted under both Call 1 and Call 2. While overall the criteria used in the two calls were very similar, there were some changes. The main difference were: a) that the definition of the reach of the network was extended in Call 2; b) Applicants were required to separate the capital and operating cost of backhaul radio equipment in Call 2 and c) applicants were requested to estimate the impact of the requirement to repay 100% of the project cost over the lifetime of the assets in Call 2.

Financial

2. All projects have taken into account the requirement to repay the Public Bodies' 10% contribution to the project implementation cost.
3. In section 5.5.1 of the *Instruction To Applicants (Call 2)*, it is noted that: "*The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation.*" Applicants did not in general demonstrate that this requirement could be met and in several cases have resorted to the use of artificially long estimates of asset lifetimes in an attempt to show compliance.

Wireless Sites

4. The market for fixed wireless access is rapidly changing. To avoid situations where wireless sites developed by Public Bodies lie idle as a result of demand changes or the availability of alternative sites, it is recommended that projects planning to deploy a wireless site should have an "anchor tenant" in place prior to the awarding of any grant agreement.
5. The deployment of a radio mast is likely to require planning permission. Given local sensitivities, the application process should commence as quickly as possible allowing time for delays, prior to full financial commitment to the project. The awarding of planning permission should be a condition precedent of the grant agreement.
6. In projects where a wireless site is proposed, but where no backhaul radio link is planned, it is recommended that the location of the site be checked to determine its suitability for the development of backhaul radio links by network operators.
7. It is recommended that a standard design of radio mast be used wherever possible and that a supply of such masts be obtained through a central procurement process.
8. In line with the Guidelines, the Public Body should not provide active telecommunications equipment on the radio mast or tower. The mast space



should be provided for rental through a Management Services Entity to network operators or other users.

9. In the case of smaller projects where the main element deployed is a radio mast, some proposals (for example Ratoath in Phase 2) also plan to install a collocation centre and a short run of fibre to connect the mast to the Eircom exchange. The economics of the fibre and collocation centre are unclear: while they may be useful in some scenarios, it is not clear if the cost would be sufficiently low to prove attractive to service providers. It is recommended that this configuration be studied and a general approach taken to all such projects.

Radio Collocation Cabins

10. The use of radio collocation cabins has been proposed by some applicants; they consist of a full collocation cabin located at a wireless site and would be used to house radio transmission equipment. This expenditure is not justified; it is considered that much simpler equipment shelters will be sufficient to meet the environmental requirements of network operators deploying radio equipment.

All radio links

11. The existence of satisfactory radio path profiles for all radio link paths should be verified very early in the detailed design work of all affected projects.

Regional radio networks

12. In general the capital cost of regional backhaul radio networks is relatively low, taking account of the capacity they provide, the difficulty of the terrain and the route lengths. However they typically have high operating costs as a result of a combination of factors, including the cost of remote equipment maintenance, equipment replacement and the leasing cost of intermediate stations which are usually owned by private operators. The impact of these costs will be felt in the future development of these networks even if, as is currently proposed, the equipment is deployed and operated by the Management Service Entity or another operator.
13. To address these issues, the development of regional fibre backhaul using fibre wrap on the ESB-Telecom high voltage network is suggested. This approach would be an ideal solution as it can be deployed at relatively low cost, it supports very high bandwidths and provides towns with access to the ESB-Telecom's very competitive broadband backbone services. It is recommended that the DCMNR consider this approach in conjunction with ESB-Telecom.
14. Even if such regional fibre networks can be developed, it is likely that radio links will be required to provide service in the short term.

REVIEW OF APPLICATIONS

In the following sections, each project is reviewed under a number of standard headings, as follows:

- ⇒ Applicant's summary description of the project
- ⇒ Project Elements
- ⇒ Location
- ⇒ Coverage
- ⇒ Social Aspects
- ⇒ Financial Issues



- ⇒ Clarification questions
- ⇒ Conclusions
- ⇒ Recommendations

Information is provided under each heading where appropriate. If there is no comment under a particular heading, that heading is omitted.

5. PROPOSAL EVALUATIONS

5.1 DCMNR2005 – 203 MOUNTMELICK

5.1.1 Applicant's summary description of the project

Laois has been designated as a priority centre for deployment of fibre diversity, dark fibre and IP Points of Presence (POP). Laois County Council, in line with the 'County Development Plan 2000' 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.

5.1.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 4.5km duct and fibre network in Mountmellick town.
- The installation of a collocation centre
- The development of a wireless site for local access and backhaul radio use.
- Support for the deployment of an STM-1 backhaul radio system, linking the MAN at St. Vincent's Hospital in Mountmellick to the ESB Telecom network at an interconnect point in Portlaoise.

Location

The network is located within the town of Mountmellick, with some radio equipment located in Portlaoise.



Coverage

The Applicant indicates that the potential users base within reach of the fibre network is 115, excluding schools.

It is estimated that 38% of the towns building are reachable from the wireless site if measures at the 3m standard height but over 90% of the towns addressable market is reachable at rooftop level.

Social Aspects

The applicant notes that four schools are within reach of the fibre network with a total of 76 pupils.

Financial Issues

The ten year NPV cost the active backhaul radio equipment amounts to €188,375. However the applicant has underestimated the equipment replacement costs.

Regarding the repayment of the full cost of the project over the economic lifetime of the assets, the applicant showed that this was feasible, assuming that most of the repayment were deferred to after year ten, and based on very high revenue estimates relative to other projects.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please provide a network schematic, showing all network elements, fibre and radio links and interconnections.
2. Section 4.1 of the proposal mentions that the project includes the provision of customer premises equipment for public bodies. Please indicate the total cost and grant amount proposed.
3. The Capital expenditure table indicates that a wireless site will be developed with the cost of the development and security estimated to be €100,000 excl VAT, Does this amount include a mast or structure on the hospital? If so please show this cost as a separate item in the table.
4. As the location of a wireless site on the hospital building will require the co-operations of the hospital authorities, please demonstrate that they, in principal, support the project.
5. Please complete a copy of the table below for each backhaul radio route:

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ¹	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of each radio backhaul route.

¹ Annual rent could be the cost of site rental or the cost of mast space as applicable.

6. Please revise the business plan for the backhaul radio equipment operating costs to take account of the licence and operations and maintenance costs after the first year, the full cost of equipment replacement (which should be allocated to year 5) the cost of rental of mast space on the ESB Telecom mast in Portlaoise, and the cost of a wireless site rental at the Hospital.
7. Please confirm that there is no public or private mast space currently available or planned for rent in the town. If other mast space is available please provide details.
8. Please provide a line-of-sight radio coverage map for the proposed wireless site. The map should indicate areas that have a direct line of sight to the wireless site from a height of 3m or less. Note if the maps already provided conform to this requirement please state that in your response.
9. Please confirm all organisations that are within reach (that is with direct line of sight to the radio mast) of the planned network and list them in the table below.

Organisation	Nature of business	Estimated Number of PC users	Weighting	Total

Table: Number of businesses with line of sight to the Mast

10. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The project represents poor value for money relative to other projects. Revenues estimates appear to be inflated, given the very low number of potential users, with few organisation with any significant number of computers.
2. While the Applicant states that the revenue estimates for the project are "extremely conservative" it is surprising that they are in fact among the highest seen. For example the project Birr in Co. Offaly which is a network that is twice the length, and with over five times Mountmellick's potential users, estimate the fibre revenue in year seven to be €20,000 while Mountmellick predicts €96,630.
3. The project proposed to use a water tower in the grounds of the local hospital to support as a wireless site. However the Applicant has indicated that rent for the site will be €10,000 per year. The use of this tower has not reduced capital costs which amount to € 226,441 for this development. This represents poor value for money, and should only be considered if the local authority has no suitable site.
4. The applicant indicates that the location of the wireless site was chosen with the objective of maximising backhaul connectivity. The support for wireless local access was secondary as it was felt that wireless access would "weaken the case for carriers



to take fibre". This position is contrary to the Guidelines which calls for infrastructure supporting a range of different and competing broadband technologies.

5. The Applicant could not confirm whether other masts were available for rent in the town.

Recommendations

1. It is recommended that the project be supported,
2. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.
3. If the wireless development does proceed it is recommended that the project should locate a new wireless site on property owned by the local authority.
4. It is recommended that the project budget be cut by 35% a target figure that should be achieved through fibre routing efficiencies and other savings.



5.2 DCMNR2005 – 305 MOATE

5.2.1 Applicant's summary description of the project

Summary Description of the Project

Moate has been designated as a priority centre for deployment of fibre diversity, dark fibre and IP Points of Presence (POP). Westmeath County Council, in line with the 'County Development Plan 2000 - 2008' proposes to build a Metropolitan Area Network (MAN) throughout Moate 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 Moate Co-Location site, schools, and public libraries to existing Telecommunications carriers.

Westmeath County Council propose to promote the economic development of Moate 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.

5.2.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 4.6km duct and fibre network in Moate town.
- The deployment of a collocation cabin, close to Eircom's exchange.
- The project provides a fibre interconnect with BT Ireland's backbone network at the town's railway station.

Location

The network will provide services to Moate town.

Coverage

The Applicant indicates that the fibre network reaches 146 potential users.

Social Aspects

The applicant indicates that the network reaches four schools with a total of 107 pupils. However three of the schools are very small with less than five pupils.



Financial Issues

The 1.2km of the network will be build under a duct sharing arrangement reducing the costs by about €50 per metre for that section.

While the applicant indicates a EBIDT surplus after ten years the revenue estimates are very high, given the small number of potential users, for example in year ten it is assumed that a total of 94km of fibre will be rented, over twenty times the total length of the network.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Section 2.2.5 of the proposal indicates that CPE equipment is included in the project, please indicate the nature of this equipment and its cost. Has this cost been included in the business plan ?
2. Please confirm that the list of potential customers given in Annex E are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary, please provide a revised table.
3. Please address section 5.5.1 of the ITA-Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The financial viability of the network is doubtful given the low number of potential users. The revenue estimates are very high for such a small market base and call into question the realism of the business plan.

Recommendations

1. It is recommended that the project be redesigned with a wireless element included, within the same budget, economies to be sought in the fibre deployment.
2. It is recommended that a new proposal be developed.



5.3 DCMNR2005 – 306 PORTARLINGTON

5.3.1 Applicant's summary description of the project

Summary Description of the Project

Laois has been designated as a priority centre for deployment of fibre diversity, dark fibre and IP Points of Presence (POP). Laois County Council, in line with the 'County Development Plan 2000' proposes to build a Metropolitan Area Network (MAN) throughout Portarlington 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 Portarlington 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.

5.3.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 9.5km duct and fibre network in Portarlington town.
- The deployment of a collocation cabin, close to Eircom's exchange.
- The project provides a fibre interconnect with BT Ireland's backbone network at the town's railway station.

Location

The network provides service in Portarlington town.

Coverage

The applicant indicates that the fibre network reaches 316 potential users.

Social Aspects

The fibre network reaches 4 schools with a total of 102 pupils.

Financial Issues

While the proposal refers to the deployment of a backhaul radio link, the cost of the mast or equipment has not been included in the business plan.

While the applicant indicates a EBIDT surplus after ten years the revenue estimates are very high, given the small number of potential users, for example in year ten it is assumed that over 130km of fibre will be rented.

Regarding the repayment of the full cost of the project over the economic lifetime of the assets, the applicant showed that this was feasible, assuming that most of the repayment were deferred to after year ten, and based on very high revenue estimates relative to other projects.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Section 2.2.6 of the proposal indicates that CPE equipment is included in the project, please indicate the nature of this equipment and its cost. Has this cost been included in the business plan ?
2. Sections 4.1 and 5.2.5 of the proposal indicates that the project includes radio backhaul for interconnection with ESB Telecom, however there is no cost allocation for a wireless site, radio mast or backhaul radio equipment in the business plan. Please clarify.
3. If backhaul radio is to be provided, please include the cost of the wireless site and mast, and separately indicate the cost of the radio equipment in the business plan, and provide a radio propagation path profile for the proposed link.
4. Please also provide a line-of-sight radio coverage map for the proposed wireless site. The map should indicate areas that have a direct line of sight to the wireless site from a height of 3m or less.
5. Please confirm that the list of potential customers given in Annex E are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
6. Please address section 5.5.1 of the ITA-Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The relatively low market demand, high cost of the network, and overoptimistic revenue expectations cast doubt on the project's business plan.
2. The lack of a wireless facility is a concern as the network currently caters only for fibre customers.



Recommendations

1. It is recommended that the project be supported, however the budget should be reduced by 35%, a target figure that should be achieved through routing efficiencies.
2. It is recommended that a radio mast be installed in order to widen the scope of the project and support service diversity.

5.4 DCMNR2005 – 307 CHARLEVILLE

5.4.1 Applicant's summary description of the project

Summary Description of the Project

The proposal consists of

1. The installation of a Combined Local Wireless Access and Backhaul Mast at the fire station in Charleville.
2. The wireless backhaul from the mast to a Wireless backbone.
3. Installation of an approximately 5175m fibre duct route between the mast, the main business centres, Esat/BT fibre at the railway station and the local Eircom exchange
4. The construction of a collocation facility adjacent to the Eircom Exchange.

5.4.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of 5.2km duct and fibre network the town.
- The installation of a collocation centre adjacent to the Eircom exchange.
- The development of a wireless site at the Fire Station
- The deployment of a radio mast
- The project will provide a fibre interconnect with BT Ireland's national backbone network.
- The project supports a radio backhaul link to Cork City MAN, via a previously planned hilltop site near Kanturk.

Location

The network provides service in Charleville town.

Coverage

The applicant indicates that the fibre network reaches 189 potential users.

The applicant indicates that 72% of business in the town will be covered by the radio mast.

Social Aspects

Two schools are reached by the fibre network, with a total of 110 pupils.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link amounts to €175,948.

Revenue estimates for the network are high given the low market demand indicated in the proposal.



The applicant indicates that taking account to the need to repay project costs over a 20 year period, it will be possible for the project to be financially viable. However, as noted above, this does depend on optimistic revenue estimates.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please clarify if the length of the network 5.125km includes the extension to the BT Ireland's interconnect point at the railway station. If not please include this item in a revised costing.
2. The location of the wireless site is not clear from the network map. If the planned radio mast is not on the route of the fibre network, please indicate how the MAN will interconnect with the backhaul radio.
3. The proposal notes that ESB telecom operate a mast site in the town; is mast space available for rent from ESB Telecom? If so, how will this project impact ESB Telecom's investment ?
4. Please confirm whether the fibre network will interconnect with the backbone network of ESB Telecom. If not, please indicate how such an interconnect could be developed and provide a cost estimate.
5. Please complete a copy of the table below for each backhaul radio route:

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ²	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of each radio backhaul route.

6. Please confirm that the list of potential customers given in Appendix E, are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
7. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. Given that the proposed network in Charleville provide a direct fibre interconnection to BT Ireland's backbone network (and to ESB Telecom) the need to support a radio backhaul is not demonstrated. However as the route is technically viable, the decision to deploy the equipment would in any case be a commercial decision for a private backhaul operator.
2. The low market demand in the town will strain the financial viability of the project.

²

Annual rent could be the cost of site rental or the cost of mast space as applicable.



3. The situation regarding the existing mast space rental market is complex. The ESB do offer mast space however the mast appears to be located 3km from the town centre, which may limit its use for some applications. The coverage of the ESB mast is not clear and there may be parts of the town better covered by the proposed local authority mast.
4. The base cost of connecting the network to the ESB Telecom backbone is estimated to be €141,000. However a number of cheaper options are also possible.

Recommendations

1. It is recommended that the project be supported.
2. It is recommended that an interconnect with ESB Telecom's backbone network should be included in the network.
3. It is recommended that the ESB be contacted to determine if they support the proposed radio mast in Charleville. If the company does not support the mast the issue should be reviewed by the DCMNR.



5.5 DCMNR2005 – 308 DUNMANWAY

5.5.1 Applicant's summary description of the project

Summary Description of the Project

The proposal consists of

1. The installation of a Combined Local Wireless Access and Backhaul mast at the fire station in Dunmanway.
2. The wireless backhaul from the mast to a Wireless backbone.
3. Installation of an approximately 3860m fibre duct route between the mast, the main business centres and the local Eircom exchange
4. The construction of a collocation facility within 300m of Eircom Exchange in Dunmanway.

5.5.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of 3.9km duct and fibre network in Dunmanway.
- The installation of a collocation centre adjacent to the Eircom exchange.
- The development of a wireless site at the Fire Station
- The deployment of a radio mast
- The project supports a radio backhaul link to Cork City MAN, via a previously planned hilltop site near Cappeen.

Location

The network offer services in Dunmanway Town.

Coverage

The Applicant indicates that the fibre network reaches 106 potential users.

72% of the businesses within the town are within reach of the radio mast.

Social Aspects

The fibre network reaches one school with 20 pupils.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link amounts to €175,948.

Revenue estimates for the network are high given the low market demand indicated in the proposal.

The applicant indicates that taking account to the need to repay project costs over a 20 year period, it will be possible for the project to be financially viable. However as noted above this does depend on optimistic revenue estimates.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. The wireless site does not appear to be on the route of the fibre MAN, please indicate how the MAN will interconnect with the backhaul radio.
2. The proposal notes that ESB telecom operate a mast site within 1km of the town; is mast space available for rent from ESB Telecom ? If so, how will this project impact ESB Telecom's investment ?
3. Section 2 of the proposal notes that the Dunmanway network will contain an extension to the BT network which is presented at the railway station. Does this refer to another town ?
4. Please complete a copy of the table below for each backhaul radio route:

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ³	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of each radio backhaul route.

5. Please confirm that the list of potential customers given in Appendix E, are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
6. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The low market demand will strain the financial viability of the project. However the applicant has keep the size of the network broadly commensurate with the demand.
2. The situation regarding the existing mast space rental market is complex. The ESB do offer mast space however the mast appears to be located 1km from the town centre, which should make it suitable for many applications however the coverage of the ESB mast is not clear and there may be parts of the town better covered by the proposed local authority mast.

³ Annual rent could be the cost of site rental or the cost of mast space as applicable.



Recommendations

1. It is recommended that the project be supported.
2. It is recommended that the ESB be contacted to determine if they support the proposed radio mast in Dunmanway. If the company does not support the mast, the issue should be reviewed by the DCMNR.



5.6 DCMNR2005 – 309 FERMOY

5.6.1 Applicant's summary description of the project

Summary Description of the Project

The proposal consists of

1. The installation of a Combined Local Wireless Access and Backhaul Mast at the water tower in Fermoy.
2. The wireless backhaul from the mast to a Wireless backbone.
3. Installation of an approximately 8570m fibre duct route between the mast, the main business centres and the local Eircom exchange
4. The construction of a collocation facility within 80m of the Eircom Exchange in Fermoy.

5.6.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of 8.6km duct and fibre network in the town.
- The installation of a collocation centre adjacent to the Eircom exchange.
- The development of a wireless site at the Water Tower.
- The development of a wireless site (for backhaul) at a Reservoir a few kilometres from the town.
- The deployment of two radio masts at the wireless sites.
- The project supports a radio backhaul link to Cork City MAN, via a new hilltop site at the reservoir near Fermoy and a second hilltop site near Kanturk.

Location

The network provides service to Fermoy town.

Coverage

The applicant indicates that the fibre network reaches 532 potential users.

It is estimated that 78% businesses in the town are within reach of the radio mast.

Social Aspects

The fibre network reaches 4 schools with 86 pupils.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link amounts to € 279,612.

Revenue estimates for the network are high given the medium level of market demand indicated in the proposal.



The applicant indicates that taking account to the need to repay project costs over a 20 year period, it will be possible for the project to be financially viable. However as noted above this does depend on optimistic revenue estimates.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm whether the radio mast in the town will be located at the Fire Station or at the Water Tower, both are mentioned in the proposal.
2. Please clearly mark indicate on the map which masts are part of this project and the function of each (i.e. access or backhaul or both). And please indicate the location of other relevant masts eg. any ESB mast.
3. The wireless site does not appear to be on the route of the fibre MAN, please indicate how the MAN will interconnect with the backhaul radio.
4. The proposal mention the use of two radio masts one at the Water Tower and the second at the Water Reservoir some kms from Fermoy, however the business plan only includes the cost of one mast, please clarify.
5. The proposal notes that ESB telecom operate a mast site within 0.5km of the town; is mast space available for rent from ESB Telecom ? If so, how will this project impact ESB Telecom's investment ?
6. Please complete a copy of the table below for each backhaul radio route:

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ⁴	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of each radio backhaul route.

7. Please confirm that the list of potential customers given in Appendix E, are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
8. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The situation regarding the existing mast space rental market is complex. The ESB do offer mast space however the mast appears to be located 0.5km from the town centre and is on the route of the MAN, which should make it suitable for many applications. The coverage of the ESB mast is likely to be very similar to than of the proposed local authority mast. A second RTE mast is also mentioned

⁴

Annual rent could be the cost of site rental or the cost of mast space as applicable.



by the applicant, but it was not indicated that mast space was made available for rent.

Recommendations

1. It is recommended that the project be supported.
2. It is recommended that the ESB be contacted to determine if they support the proposed radio mast in Fermoy. If the company does not support the mast deployment, the issue should be reviewed by the DCMNR. The same issue should be clarified regarding the existing RTE mast.



5.7 DCMNR2005 – 310 KANTURK

5.7.1 Applicant's summary description of the project

Summary Description of the Project

The proposal consists of

1. The installation of a Combined Local Wireless Access and Backhaul Mast at the fire station in Kanturk.
2. The wireless backhaul from the mast to a Wireless backbone.
3. Installation of an approximately 4135m fibre duct route between the mast, the main business centres and the local Eircom exchange
4. The construction of a collocation facility within 110m of the Eircom Exchange in Kanturk

5.7.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of 4.1km duct and fibre network in the town.
- The installation of a collocation centre close to the Eircom exchange.
- The development of a wireless site at the Fire Station
- The project supports a radio backhaul link to Cork City MAN, via a new hilltop site at the reservoir near Kanturk.

Location

The network provides service in Kanturk town.

Coverage

The applicant indicates that the fibre network reach 269 potential customers.

The wireless network covers 74% of the town's businesses.

Social Aspects

The fibre network reaches three schools with 72 pupils.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link amounts to € 175,948.

Revenue estimates for the network are high given the medium level of market demand indicated in the proposal.

The applicant indicates that taking account to the need to repay project costs over a 20 year period, it will be possible for the project to be financially viable. However as noted above this does depend on optimistic revenue estimates.



Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm whether the radio mast in the town will be located at the Fire Station at it appears form the map to be located some distance north-east of the fire station and not on the route of the fibre, however this may be a different mast.
2. Please clearly mark indicate on the map which masts are part of this project and the function of each (i.e. access or backhaul or both). And please indicate the location of other relevant masts.
3. The proposal notes that ESB telecom operate a mast site within 0.5km of the town; is mast space available for rent from ESB Telecom ? If so, how will this project impact ESB Telecom's investment ?
4. Please complete a copy of the table below for each backhaul radio route:

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ⁵	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of each radio backhaul route.

5. Please confirm that the list of potential customers given in Appendix E, are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
6. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The ESB own a mast near the town, but currently do not offer mast space for rent, however as they may decide to do so in future, it is considered advisable to treat the situation in the same way as for Dunmanway and Fermoy, that is to consult the company on the deployment of a radio mast.

Recommendations

1. It is recommended that the project be supported.
2. It is recommended that the ESB be contacted to determine if they support the proposed radio mast in Kanturk. If the company does not support the mast, the issue should be reviewed by the DCMNR.

⁵ Annual rent could be the cost of site rental or the cost of mast space as applicable.



5.8 DCMNR2005 – 314 CLARA

5.8.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Clara including the Co-Location Facility, interconnection with Eircom and the installation of a number of primary customer connections. The project also includes for a wireless site in the town and a potential BT-Ireland interconnect point at the railway station. The approximate length of the Clara MAN is 4.5km

5.8.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 4.5km duct and fibre route in the town
- The deployment of a collocation centre
- The project supports the interconnection of the network with BT Ireland's national backbone network.
- The development of a wireless site linked to the MAN.
- The deployment of a radio mast
- The project supports a radio backhaul route via Moydrum to the ESB Telecom's backbone network in Lanesborough.

Location

The network provides services in the town of Clara.

Coverage

The Applicant indicates that the fibre network reaches 104 potential users.

Social Aspects

The fibre network reaches 2 schools with a total of 40 pupils.

Financial Issues

The applicant uses non standard civil works costs; applying standard figures the overall project cost rises to € 1,318,812 a 23% increase.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to Lanesborough amounts to €206,641 however the cost of equipment replacement has been underestimated by about €60,000.

The applicant indicates that the project will deliver a EBIDT surplus after ten years, taking account to replay 100% of the project t covets over the lifetime of the assets. The economic life of the assets is assumed to be 30 years.



Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that the application will remain valid until the 31 Dec 2005.
2. The operating cost table of the business plan has not been fully completed, please complete and submit a revised plan.
3. The backhaul radio costs have not been provided, please complete the table in the business information template.
4. Please provide a propagation path profile for the backhaul radio route to Lanesborough.
5. Please provide a line-of-sight radio coverage map for the proposed wireless site. The map should indicate areas that have a direct line of sight to the wireless site from a height of 3m or less.
6. Please complete a copy of the table below for the backhaul route to Lanesborough:

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ⁶	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of radio backhaul route.

7. Please confirm that the list of potential customers given in section 3.5, are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
8. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The applicant has indicated that public mast space may be available for rent in the town at the mast currently used by Meteor and Vodafone.
2. The backhaul radio route via the RTE mast on Coolderry and hence to the ESB Telecom site at Lanesborough appears to depend on an ESB pylon for the last leg of the link.
3. No backhaul radio path propagation profiles were provided. However the applicant indicates that an interconnect with BT Ireland's network in the town may render the radio route redundant. And that another operator is already providing open access backhaul capacity on the route.

⁶ Annual rent could be the cost of site rental or the cost of mast space as applicable.



4. The proposed wireless access site does not cover some areas of the town, while the solution proposed is low cost, it may be more effective to develop a larger mast albeit at higher cost.

Recommendations

1. It is recommended that the project be supported.
2. Given the low market demand, it is recommended that greater priority be allocated to a wireless solution over the fibre network.
3. The project should allocate €140,000 from the existing cost budget for a full radio site and mast, and that a new site, offering better coverage of the town, be sought at the detailed design stage. However with reference to section 10.2 of the Guidelines, to ensure that existing investment in masts in Clara are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.
4. It is recommended that the interconnection with BT Ireland's network at the railway station be implemented.
5. The applicant should provide full radio path propagation profiles for each hop of the proposed backhaul route, demonstrating the technical viability of the route.



5.9 DCMNR2005 – 315 EDENDERRY

5.9.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Edenderry including the Co-Location Facility, interconnection with Eircom 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 Edenderry MAN is 7.005km.

5.9.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 7.0km duct and fibre route in the town
- The deployment of a collocation centre close to the Eircom exchange.
- The development of a wireless site at the Local Authority Reservoir.
- The deployment of a radio mast
- The project supports a radio backhaul route to Clara (for interconnect with BT Ireland) and to Lanesborough (for interconnection with ESB Telecom).

Location

The network is located in Edenderry town.

Coverage

The Applicant indicates the fibre network reaches 316 potential users.

The coverage of the wireless sites appears to be good and most businesses should receive service.

Social Aspects

The fibre network reaches three schools with a total of 50 pupils.

Financial Issues

The applicant uses non standard civil works costs; applying standard figures the overall project cost rises to €1,815,724 a 28% increase.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link amounts to 228,642. However the operating cost of the network have been underestimated by €120,000.

The Applicant indicates that the project will deliver a EBIDT surplus after ten years, taking account to replay 100% of the project costs over the lifetime of the assets. The economic life of the assets is assumed to be 30 years.



Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that the application will remain valid until the 31 Dec 2005.
2. The operating cost table of the business plan has not been fully completed, please complete and submit a revised plan.
3. Please confirm that there is no public or private mast space currently available or planned for rent in Portrane. If other mast space is available please provide details.
4. Please provide a line-of-sight radio coverage map for the proposed wireless site. The map should indicate areas that have a direct line of sight to the wireless site from a height of 3m or less.
5. While the use of the radio mast for back haul radio is mentioned in the proposal no information is provided please provide the following information:
6. Please complete a copy of the table below for the backhaul route proposed.

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ⁷	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of radio backhaul route.

7. Please provide a propagation path profile for the backhaul radio route.
8. The backhaul radio costs have not been provided, please complete the table in the business information template.
9. Please confirm that the list of potential customers given in section 3.5, are each within 70m of the fibre network or otherwise fall within the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
10. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The applicant has indicated that public mast space may be available for rent in the town at the mast currently used by Meteor and Vodafone.
2. While the current wireless site does not cover the whole town, it does appear to offer good coverage at a low cost.
3. A private operator is currently deploying a backhaul radio solution to the town using the proposed route to Lanesborough, apparently on an open access basis.

⁷

Annual rent could be the cost of site rental or the cost of mast space as applicable.



Recommendations

1. It is recommended that the project be supported.
2. It is recommended that an alternative location and design of radio mast be considered, with the objective of increasing the wireless access radio coverage within the town centre.
3. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in Clara are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.
4. The applicant should provide full radio path propagation profiles for each hop of the proposed backhaul route, demonstration the technical viability of the route.



5.10 DCMNR2005 – 321 CLANE

5.10.1 Applicant's summary description of the project

Summary Description of the Project

The Context

Clane has a population of approximately 4,420 people and in excess of 220 business premises. It has a major business park on the outskirts of the town that accommodates over 30 businesses. The town also has a large hospital and significant residential, retail and commercial properties being developed. However, Clane is seriously disadvantaged in terms of broadband communications infrastructure and services.

The Strategy

This strategy provides a platform on which a solution to broadband deficits in Clane can be addressed. The strategy involves a number of key actions, many of which need to be addressed simultaneously. It is only when implemented together in an integrated fashion that the actions will provide a comprehensive solution to the key issues. The focus of this strategy is to attract new carriers, infrastructure and services into the Clane area and consequently attract information services and other high value industries to the town's current and planned business districts.

The Clane Broadband Network

This project is only one element of Kildare County Council's overall strategy for the region. The key elements of the Clane Project are:

- The construction of a Dark Fibre and ducting ring network around Clane that will incorporate all of the main existing and planned business and technology areas, as well as community sites such as educational institutions, the hospital and health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Network will be made available to operators at rates defined by the Management Services Entity (MSE).
- The network will include the establishment of a Co-Location facility that will act as a PoP and Interconnect point for national and global carriers. The facility will be adjacent to the Eircom exchange;
- The construction of a wireless site, located at the co-location facility adjacent to the Eircom exchange, to provide comprehensive coverage of the entire town and surrounding area. Space will be leased on a mast for the installation of wireless access equipment. The Wireless site will provide local access coverage and backhaul connectivity to national and international networks;
- The construction of a fibre backhaul route to the previously approved Sallins MAN, which has access to other national carrier networks, including that of BT.

5.10.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 7.4km fibre and duct network in Clane.
- The deployment of a collocation centre close to Eircom's exchange.
- The development of a wireless site at the collocation centre.
- The installation of a 30m radio mast



- The deployment of a 5km fibre backhaul route to Sallins MAN where interconnection with ESB Telecom will be provided,
- The project supports a backhaul radio route to provide interconnects with the following options:
 - To Citywest via the Chorus site on Dunmurry Hill;
 - To Maynooth, to connect with Maynooth MAN or the ESBT,
 - To Sallins to connect with the Sallins MAN
 - To Dunmurry Hill to connect with Chorus.

Location

The project provides service in Clane town.

Coverage

The applicant indicates that a total of 636 potential users are within reach of the fibre network. A further 180 users are planned as a result of business development in the town.

The wireless coverage is similar.

Social Aspects

The fibre network reaches four schools with a total pupilage of 1,567. The wireless coverage is similar.

Financial Issues

The charges for the backhaul fibre links is estimated to be €5/m. This cost is high relative to the cost of deployment and, as a result, revenue estimates for this facility may be optimistic.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to the ESB Telecom's network amounts to €288,089.

The applicant indicates that recovery of 100% of the project cost is achievable within the lifetime of the assets. Asset lifetime is estimated to be 30 years.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that there is no public or private mast space currently available or planned for rent in Clane. If other mast space is available please provide details.
2. Please provide further information of the fibre route to Prosperous, what is the length of the route.
3. Has the cost of the link to Prosperous been taken into account in the business plan.
4. Please complete a copy of the table below for the backhaul radio routes proposed.



Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ⁸	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of radio backhaul route.

- Does the backhaul radio cost in the business plan reflect the cost of all the radio equipment required to develop routes to Sallins and to Citywest? If not please revise the spreadsheet to reflect these costs.
- Please confirm that the list of potential fibre customers given in appendix F are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
- Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

- The variety of options for the development of backhaul route for the project is a positive aspect of the project, as the potential route offer a variety of possibilities for network operators who would be making the investment in backhaul radio equipment.
- The fibre backhaul link to Prosperous provides backhaul to Prosperous rather than to Clane and the cost is covered in that project.
- The applicant indicates that masts are available for rent in the town, but puts forward a number of reasons why they are unsuitable for renting. However the rationale provided was not in line with the requirements given in section 10.2 of the Guidelines.

Recommendations

- It is recommended that the project be supported.
- It is recommended that an alternative location and design of radio mast be considered, with the objective of maximising wireless access radio coverage.
- With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.

⁸ Annual rent could be the cost of site rental or the cost of mast space as applicable.



5.11 DCMNR2005 – 322 MONASTEREVIN

5.11.1 Applicant's summary description of the project

Summary Description of the Project

The Context

Monasterevin has a population of approximately 2,600 people and in excess of 110 business premises. It is located adjacent to the M7 motorway, which connects the town to Dublin and the south. The town accommodates a large Glanbia production plant and a significant number of schools. However, Monasterevin is seriously disadvantaged in terms of broadband communications infrastructure and services.

The Strategy

This strategy provides a platform on which a solution to broadband deficits in Monasterevin can be addressed. The strategy involves a number of key actions, many of which need to be addressed simultaneously. It is only when implemented together in an integrated fashion that the actions will provide a comprehensive solution to the key issues. The focus of this strategy is to attract new carriers, infrastructure and services into the Monasterevin area and consequently attract information services and other high value industries to the town's current and planned business districts.

The Monasterevin Broadband Network

This project is only one element of Kildare County Council's overall strategy for the region. The key elements of the Monasterevin Project are:

- The construction of a Dark Fibre and ducting ring network around Monasterevin that will incorporate all of the main existing and planned business and technology areas, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Network will be made available to operators at rates defined by the Management Services Entity (MSE).
- The network will include the establishment of a Co-Location facility that will act as a PoP and Interconnect point for national and global carriers. The facility will be located at the train station, beside the BT network, and in proximity to the Eircom exchange, which will be on the network;
- The construction of a wireless site, located at the co-location facility, to provide comprehensive coverage of the entire town and surrounding area. Space will be leased on a mast for the installation of wireless access equipment. The Wireless site will provide local access coverage and backhaul connectivity to national and international networks. The site has line of sight to Dunmurry Hill and the Kildare MAN, where it can provide primary or resilient backhaul.

5.11.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

- The deployment of a 2.3km fibre and duct network in Monasterevin.
- The deployment of a collocation centre close to Eircom's exchange.
- The development of a wireless site at the collocation centre.
- The installation of a 30m radio mast.
- The project provides a fibre interconnection with BT Ireland's backbone network at the railway station in the town.



- The project supports the following possible backhaul radio route:
 - a) To interconnect ESB Telecom's network at Maynooth.
 - b) To Dunmurry hill to interconnect with Chorus
 - c) To Kildare to interconnect with Kildare MAN
 - d) To the hill of Saggart, and Dunmurry hill to Citywest.

Location

The project provides service in Monasterevin town.

Coverage

The applicant indicates that a total of 199 potential users are within reach of the fibre network.

The wireless site provider coverage of 268 potential users.

A further 160 users are planned as a result of business development in the town

Social Aspects

The fibre network reaches four schools with a total pupilage of 728.

The wireless site coverage five schools with 794 pupils.

Financial Issues

The charges for the backhaul fibre links is estimated to be €5/m. This cost is high relative to the cost of deployment and, as a result, revenue estimates for this facility may be optimistic.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to the ESB Telecom's network amounts to €288,089.

The applicant indicates that recovery of 100% of the project cost is achievable within the lifetime of the assets. Asset lifetime is estimated to be 30 years.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that there is no public or private mast space currently available or planned for rent in the town. If other mast space is available please provide details.
2. Please complete a copy of the table below for the backhaul radio routes proposed.

Site name or Location	Ownership	Existing mast or structure	Details of Proposed mast or structure	Annual Rent ⁹	Proposed Radio and other equipment	Radio Link Capacity

Table: Overview of radio backhaul route.

⁹ Annual rent could be the cost of site rental or the cost of mast space as applicable.



3. Does the backhaul radio cost in the business plan reflect the cost of all the radio equipment required to develop routes to Citywest ? If not please revise the spreadsheet to reflect these costs.
4. Please confirm that the list of potential fibre customers given in appendix F are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
5. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The applicant indicates that masts are available for rent in the town, but puts forward a number of reasons why they are unsuitable for renting. However the rationale provided was not in line with the requirements given in section 10.2 of the Guidelines.
2. The variety of options for the development of backhaul route for the project is a positive aspect of the project, as the potential route offer a variety of possibilities for network operators who would be making the investment in backhaul radio equipment.

Recommendations

1. It is recommended that the project be supported.
2. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.



5.12 DCMNR2005 – 323 PROSPEROUS

5.12.1 Applicant's summary description of the project

Summary Description of the Project

The Context

Prosperous has a population of approximately 1530 people and in excess of 50 businesses. It is located within 4.5km of Clane, for which a MAN with national network connectivity is also proposed. The town has two large schools and a number of retail outlets and small businesses. It also has a FAS facility, credit union and a Community Resource Centre. However, Prosperous is seriously disadvantaged in terms of broadband communications infrastructure and services.

The Strategy

This strategy provides a platform on which a solution to broadband deficits in Prosperous can be addressed. The strategy involves a number of key actions, many of which need to be addressed simultaneously. It is only when implemented together in an integrated fashion that the actions will provide a comprehensive solution to the key issues. The focus of this strategy is to attract new carriers, infrastructure and services into the Prosperous area and consequently attract information services and other high value industries to the town's current and planned business districts.

The Prosperous Broadband Network

This project is only one element of Kildare County Council's overall strategy for the region. The key elements of the Prosperous Project are:

- The construction of a Dark Fibre and ducting ring network around Prosperous that will incorporate all of the main existing and planned businesses, as well as community sites such as educational institutions, public buildings, and community centres. Dark fibre and sub-ducting on this Network will be made available to operators at rates defined by the Management Services Entity (MSE).
- The network will include the establishment of a Co-Location facility that will act as a PoP and Interconnect point for national and global carriers. The facility will be located at a site beside the Credit Union;
- The construction of a wireless site, located at the co-location facility, to provide comprehensive coverage of the town and surrounding area. Space will be leased on a mast for the installation of wireless access equipment. The Wireless site will provide local access coverage and backhaul connectivity to national and international networks. The site has line of sight to Dunmurry Hill, Clane and Maynooth, where it can provide primary or resilient backhaul;
- The construction of a fibre backhaul route to the Clane MAN, which has onward access to national carrier networks in Sallins, and another wireless backhaul site.

5.12.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

1. The deployment of a 0.95km fibre and duct network in Prosperous.
2. The deployment of a 4.5km backhaul fibre route to Clane MAN.
3. The deployment of a collocation centre (There is no Eircom exchange).
4. The development of a wireless site at the collocation centre.



5. The installation of a 30m radio mast.
6. The project supports a backhaul radio route to interconnect ESB Telecom's network at Maynooth.

Location

The project provides service in Prosperous town.

Coverage

The applicant indicates that a total of 64 potential users are within reach of the fibre network.

The wireless site provider coverage of 93 potential users.

A further 30 users are planned as a result of business development in the town

Social Aspects

The fibre network reaches 2 schools with a total pupilage of 764. The wireless site coverage is similar.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to the ESB Telecom's network amounts to €288,089.

The applicant indicates that recovery of 100% of the project cost is achievable within the lifetime of the assets. Asset lifetime is estimated to be 30 years.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that there is no public or private mast space currently available or planned for rent in the town. If other mast space is available please provide details.
2. Please confirm that the list of potential fibre customers given in appendix F are each within 70m of the fibre network or otherwise fall within the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
3. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The applicant indicates that masts are available for rent in the town, but puts forward a number of reasons why they are unsuitable for renting. However the rationale provided was not in line with the requirements given in section 10.2 of the Guidelines.
2. The cost of the fibre network is unbalanced given the long backhaul interconnect required and relatively the short fibre route in the town.



3. Market demand in the town is too low to justify a fibre network.

Recommendations

1. It is recommended that the fibre elements of the project be dropped.
2. It is recommended that a purely wireless solution be developed for the town.
3. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.



5.13 DCMNR2005 – 324 KILCOCK

5.13.1 Applicant's summary description of the project

Summary Description of the Project

The Context

Kilcock has a population of approximately 2,750 people and in excess of 145 business premises. It is located adjacent to the M4 motorway, which connects the town to Dublin and the south. The town accommodates a major Super Valu/Musgrave national distribution centre on the outskirts of the town, and there are plans for a major business, leisure and residential campus in the south-west (Courtown area) of the town that is expected to employ 3,750 people. The town also has a significant number of schools. However, Kilcock is seriously disadvantaged in terms of broadband communications infrastructure and services.

The Strategy

This strategy provides a platform on which a solution to broadband deficits in Kilcock can be addressed. The strategy involves a number of key actions, many of which need to be addressed simultaneously. It is only when implemented together in an integrated fashion that the actions will provide a comprehensive solution to the key issues. The focus of this strategy is to attract new carriers, infrastructure and services into the Kilcock area and consequently attract information services and other high value industries to the town's current and planned business districts.

The Kilcock Broadband Network

This project is only one element of Kildare County Council's overall strategy for the region. The key elements of the Kilcock Project are:

- The construction of a Dark Fibre and ducting ring network around Kilcock that will incorporate all of the main existing and planned business and technology areas, as well as community sites such as educational institutions, health centres, public buildings, community centres and libraries. Dark fibre and sub-ducting on this Network will be made available to operators at rates defined by the Management Services Entity (MSE).
- The network will include the establishment of a Co-Location facility that will act as a PoP and Interconnect point for national and global carriers. The facility will be adjacent to the BT network at the train station, and in proximity to the Eircom exchange, which will be on the network;
- The construction of a wireless site, located at the co-location facility, to provide comprehensive coverage of the entire town and surrounding area. Space will be leased on a mast for the installation of wireless access equipment. The Wireless site will provide local access coverage and backhaul connectivity to national and international networks;
- The construction of a fibre backhaul route to the previously approved Maynooth MAN, which has access to other national carrier networks, including those of BT and ESB Telecoms.

5.13.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

1. The deployment of a 5.3km fibre and duct network in Kilcock.
2. The deployment of a 6.0km backhaul fibre route to Maynooth MAN.
3. The deployment of a collocation centre close to Eircom's exchange.



4. The development of a wireless site at the collocation centre.
5. The installation of a 30m radio mast.
6. The project provides a fibre interconnection with BT Ireland's backbone network at the railway station in the town.
7. The project supports a backhaul radio route to interconnect ESB Telecom's network at Maynooth.

Location

The project provides service to Kilcock town.

Coverage

The Applicant indicates that the fibre network reached 353 potential users. However a further 2,150 users are planned as a result of the development of local business parks.

The radio mast reaches 433 potential users.

Social Aspects

The fibre network reaches three schools with a total of 1,187 pupils. The radio mast has similar coverage.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to the ESB Telecom's network amounts to €288,089.

The applicant indicates that recovery of 100% of the project cost is achievable within the lifetime of the assets. Asset lifetime is estimated to be 30 years.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that there is no public or private mast space currently available or planned for rent in the town. If other mast space is available please provide details.
2. As interconnection to BT Ireland's network is possible locally, please clarify the additional benefits to users of the 6km fibre backhaul route to Maynooth.
3. Please confirm that the list of potential fibre customers given in appendix F are each within 70m of the fibre network or otherwise fall with the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
4. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."



Conclusions

1. The applicant indicates that masts are available for rent in the town, but puts forward a number of reasons why they are unsuitable for renting. However the rationale provided was not in line with the requirements given in section 10.2 of the Guidelines.
2. Give that a fibre interconnection to BT Ireland's network is provided as part of the project plan, the 6km interconnection fibre to Maynooth and the radio backhaul route to the same town may not be absolutely necessary.
3. The financial viability of the proposed backhaul fibre route to Maynooth is uncertain. However if the proposed very large increase in the number of business in the town, as a result of the development of local business parks is confirmed, the route would provide access to an alternative provider of backbone and international connectivity.

Recommendations

1. It is recommended that the project be supported.
2. It is recommended that the proposed backhaul fibre link to Maynooth go ahead only if the large-scale business park development can be confirmed.
3. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.



5.14 DCMNR2005 – 325 KILCULLEN

5.14.1 Applicant's summary description of the project

Summary Description of the Project

The Context

Kilcullen is located off the M9 motorway and has a current population of some 1560 people. The town has in excess of 500 domestic households and 95 business premises. Located close to the M9 Junction a large office and distribution park is currently under development and will benefit from the proposed investment. Kilcullen is a commuter town, which is well serviced with road links to and from Dublin. However, Kilcullen is seriously disadvantaged in terms of broadband communications infrastructure and services.

The Strategy

This strategy provides a platform on which a solution to broadband deficits in Kilcullen can be addressed. The strategy involves a number of key actions, many of which need to be addressed simultaneously. It is only when implemented together in an integrated fashion that the actions will provide a comprehensive solution to the key issues. The focus of this strategy is to attract new carriers, infrastructure and services into the Kilcullen area and consequently attract **information services** and other high value industries to the business park that is under construction.

The Kilcullen Broadband Network

This project is only one element of Kildare County Council's overall strategy for the region. The key elements of the Kilcullen Project are:

- The construction of a Dark Fibre and ducting ring network around Kilcullen, together with a Wireless MAN that will incorporate all of the main existing and planned 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 rates defined by the Management Services Entity (MSE).
- 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 site will be constructed that will provide comprehensive coverage of the entire town and surrounding area. Space will be provided on a mast for the installation of wireless access equipment. The Wireless site will access the fibre network at the Co-Location point, providing the possibility of direct connectivity to a number of backhaul carriers;
- Connectivity to the Eircom, BT and Irish Rail fibre networks is also provided for.

5.14.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

1. The deployment of a 2.4km fibre and duct network in Kilcullen.
2. The deployment of a 4.0km backhaul fibre route to interconnect with ESB Telecom's network
3. The deployment of a collocation centre close to Eircom's exchange.



4. The development of a wireless site at the collocation centre.
5. The installation of a 30m radio mast.
6. The project supports a backhaul radio route to Citywest via Dunmurry Hill.

Location

The project provides service in the Kilcullen area.

Coverage

The Applicant indicates that the fibre network reached 219 potential users. A further 440 users are planned as a result of the development of local business parks.

The radio mast reaches 259 potential users.

Social Aspects

The fibre network reaches three schools with a total of 994 pupils. The radio mast has similar coverage.

Financial Issues

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to the ESB Telecom's network amounts to €488,140.

The applicant indicates that recovery of 100% of the project cost is achievable within the lifetime of the assets. Asset lifetime is estimated to be 30 years.

Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that there is no public or private mast space currently available or planned for rent in the town. If other mast space is available please provide details.
2. Please confirm that the list of potential fibre customers given in appendix F are each within 70m of the fibre network or otherwise fall within the reach of the network as defined in the Technical Guidelines Version Two section 12 (www.norcontel.ie/rbp). If necessary please provide a revised table.
3. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. The applicant indicates that masts are available for rent in the town, but puts forward a number of reasons why they are unsuitable for renting. However the rationale provided was not in line with the requirements given in section 10.2 of the Guidelines.



Recommendations

1. It is recommended that the project be supported provided a review of the proposed MAN fibre route during the design phase proves satisfactory (eg that it addresses the potential user catchment provided in the resubmitted proposal). As a significant part of the town is outside the urban fibre catchment - though it may be traversed by the backhaul fibre which would be unsuitable for local access - the design review should consider whether a purely FWA solution would be appropriate. (This review was recommended in the original application evaluation but does not appear to have been undertaken).
2. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.



5.15 DCMNR2005 – 327 BANAGHER

5.15.1 Applicant's summary description of the project

Summary Description of the Project

The Context

The Shannon Region covers an area of some 10,000 square kilometres spanning counties Clare, Limerick, North Tipperary, South Offaly and North Kerry, which collectively have a population of over 407,000 people. Currently this region, like others in Ireland, is seriously disadvantaged in terms of broadband communications infrastructure and services. Shannon Broadband Ltd. was established up in response to this — to tackle the 'connectivity' issue, and to ensure that current and future enterprises have broadband access at competitive prices.

The EU's strategy for Europe is 'to transform it into the most competitive and dynamic knowledge-based economy in the world'. The Government's strategy for Ireland is 'to develop a sustainable, balanced and inclusive knowledge economy', enabling this country to make a real contribution to the European agenda. If the Shannon Region is to achieve these goals and become a first rank region, then it must have first rank connectivity — both physical connections, and knowledge connectivity, in terms of high-speed telecoms and broadband access. Shannon Broadband is a key element of the mix that will enhance a globally competitive, knowledge-based regional economy that businesses can move people, goods, and information at the right speed and at the right price.

The Strategy

Shannon Broadband Ltd. has been set up to tackle the 'connectivity' issue, and to ensure that current and future consumers have broadband access at competitive prices. Shannon Broadband Ltd. is the first public sector regional telecoms company to be setup in Ireland and comprises Shannon Development (lead partner), North Tipperary County Council, Limerick County Council, Limerick City Council, Clare County Council and Offaly County Council. The Mid West Regional Authority supports the consortium.

Shannon Broadband has already taken a number of initiatives to bring always on' broadband services to the Region. It has managed the installation of the Limerick Metropolitan Area Network (MAN), which is now nearing completion.

Offaly County Council and Banagher Town Council's strategy is to develop Banagher as an e-commerce center of excellence. The provision of new broadband infrastructure, where none is available currently, and unlikely to be made available within a reasonable period of time, is seen as critical to the future of the town and its environs.

The Banagher Broadband Network

Banagher is Offaly's fifth largest town, with a population of 1,553 (CSO 2002 Census of Population). The town and surrounding area are seriously disadvantaged in terms of broadband communications infrastructure and services.

The key elements of the Banagher Broadband Network project are:

- The construction of a dark fibre and ducting network around Banagher that will incorporate all of the existing and planned business and technology areas, as well as community sites such as educational institutions, medical facilities 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 point-to-point wireless backhaul route from Banagher to a national carrier network in Tullamore or Limerick City.



- The establishment of a Co-Location facility in Banagher 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 Reservoir. Space will be leased on this mast to service providers.

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 Banagher, with the aim of supporting inward investment, indigenous companies and social development. This project will complement the proposed Birr Broadband Network. As both networks will be connected to national carrier networks, they will create a 'digital corridor' between the two towns, thus bringing significant socio-economic benefits to both towns.

5.15.2 Evaluation Summary

Note: This project was evaluated under the Regional Broadband Programme Phase II Call 2 Criteria.

Project Elements

1. The deployment of a 4.2 km fibre and duct network in Banagher.
2. The deployment of a collocation centre close to Eircom's exchange.
3. The development of a wireless site at the town reservoir.
4. The installation of a 36metre radio mast and small equipment shelter.
5. Support for a backhaul radio route to Limerick City MAN via a private mast site at Tountina/Arra mountain.

Location

The project provides service in the Banagher area.

Coverage

The Applicant indicates that the fibre network reached 543 potential users. A further 120 users are planned as a result of the development of local business parks.

The radio mast has similar coverage.

Social Aspects

The fibre network reaches three schools with a total of 940 pupils. The radio mast has similar coverage.

Financial Issues

The project plans to produce an EBIDT surplus of €96,344 over ten years. However operating costs appear to have been underestimated.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to the ESB Telecom's network amounts to €381,773.

The applicant estimated the economic lifetime of the assets to be 25 years. However they did not demonstrate that the project could be viable if its total cost were repaid.



Clarification questions

The following clarification questions were issued during the evaluation process, the Applicant's responses were taken into account in the evaluation of the project. The response is documented in the project file.

1. Please confirm that there is no public or private mast space currently available or planned for rent in the town. If other mast space is available please provide details.
2. The proposal mentions two possible backhaul routes one to Tullamore the other Limerick. Are both routes still being considered?
3. No expenditure for a mast at Limerick is indicated, please clarify who will pay for this mast,
4. Please indicate if the rent of €8,000 per annum (see Table: Overview of each radio backhaul route) for the Limerick mast is for the wireless site or for space on the mast.
5. Please indicate what is included in the expenditure on the wireless site development totalling €60,000
6. In appendix H, two graphs are provided one from Banagher to Tountina, the other Arra Mountain to Limerick. Is Arra Mountain and Tountina the same site ?
7. Please address section 5.5.1 of the ITA- Demonstrate Feasibility and Viability and specifically the following requirement: "The recovery of 100% of the investment cost over the economic life time of the assets is an objective of the programme. The impact of this requirement on Total Operating Profit/Loss (EBIDT) for 10 year period should be estimated. Applicants should state the lifetime of the various assets that were used in the calculation."

Conclusions

1. Backhaul radio operating cost for the project are high in part due to the need to rent space on the commercial radio mast on Arra mountain; estimated to cost €12,000 per annum and the rent of a wireless site space on a mast on the Shannon Development building in Limerick which is estimated to cost €8,000 per year. This latter expenditure is avoidable if the local authority provide a wireless site.

Recommendations

1. It is recommended that the project be supported.
2. With reference to section 10.2 of the Guidelines, to ensure that existing or planned investment in masts in the town are taken into account, it is recommended that the situation regarding mast space available for rent in the town be fully clarified before a commitment is given to supporting the deployment of a publicly funded mast.
3. If a radio mast is to be deployed in Banagher for backhaul use, it is recommended that the project develop a wireless site in Limerick City rather than be dependant upon the Shannon Development building. The mast should be on the route of the MAN and support backhaul radio and if appropriate local wireless access. This should be included in the Banagher project. However the constraints set out in of section 10.2 of the guidelines must be taken into account.

