

Department of Communications,
Marine & Natural Resources

Evaluation Report
Applications
for
Regional Broadband Programme
(Phase II)

Received May 2005
(2.3 - May Priority)

All information provided in this document is Confidential. Its contents are intended for use by the Department of Communications, Marine and Natural Resources and may not be disclosed to any other party without the written consent of Norcontel (Ireland) Ltd.



NORCONTEL
Telecommunications Consultancy

NORCONTEL (Ireland) Ltd,
4 Westland Square,
Pearse Street,
Dublin 2.

Document Information	
Document Title	Evaluation Report
Filename	RBP Phase II Call 2.3 - May Priority V7
Purpose of document	Evaluation of Proposals
Approver	Quality Check
Next Review Date	

Document Revision Control			
Revision	Description of change	Author	Approval Date
V7	Checked	JH/PD	2 June 2005

CONTENTS

1. INTRODUCTION	4
2. RESPONSE TO CALL	5
3. EVALUATION PROCEDURE AND OUTCOME	6
3.1 EVALUATION AND SUMMARY	6
3.2 EU REQUIREMENTS.....	6
3.1.1 <i>Additionality, Displacement, Deadweight</i>	6
3.1.2 <i>Compliance with November 2000 Communication to DG Competition</i>	6
3.2 RECOMMENDATION GUIDELINE.....	6
4. GENERAL RECOMMENDATIONS AND PROJECT RECOMMENDATIONS	6
5. PROPOSAL EVALUATIONS	6
5.1 DCMNR2005 – 301 ATHBOY	6
5.1.1 <i>Applicant's summary description of the project</i>	6
5.1.2 <i>Evaluation Summary</i>	6
5.2 DCMNR2005 – 302 LAYTOWN-BETTYSTOWN.....	6
5.2.1 <i>Applicant's summary description of the project</i>	6
5.2.2 <i>Evaluation Summary</i>	6
5.3 DCMNR2005 – 303 DULEEK	6
5.3.1 <i>Applicant's summary description of the project</i>	6
5.3.2 <i>Evaluation Summary</i>	6
5.4 DCMNR2005 – 304 KELLS	6
5.4.1 <i>Applicant's summary description of the project</i>	6
5.4.2 <i>Evaluation Summary</i>	6
5.5 DCMNR2005 – 311 LUSK.....	6
5.5.1 <i>Applicant's summary description of the project</i>	6
5.5.2 <i>Evaluation Summary</i>	6
5.6 DCMNR2005 – 312 KINSEALY-DRINAN	6
5.6.1 <i>Applicant's summary description of the project</i>	6
5.6.2 <i>Evaluation Summary</i>	6
5.7 DCMNR2005 – 313 PORTRANE.....	6
5.7.1 <i>Applicant's summary description of the project</i>	6
5.7.2 <i>Evaluation Summary</i>	6
5.8 DCMNR2005 – 316 BLESSINGTON	6
5.8.1 <i>Applicant's summary description of the project</i>	6
5.8.2 <i>Evaluation Summary</i>	6
5.9 DCMNR2005 – 317 ENNISKERRY	6
5.9.1 <i>Applicant's summary description of the project</i>	6
5.9.2 <i>Evaluation Summary</i>	6
5.10 DCMNR2005 – 318 KILCOOLE.....	6
5.10.1 <i>Applicant's summary description of the project</i>	6
5.10.2 <i>Evaluation Summary</i>	6
5.11 DCMNR2005 – 319 NEWTOWNMOUNTKENNEDY.....	6
5.11.1 <i>Applicant's summary description of the project</i>	6
5.11.2 <i>Evaluation Summary</i>	6
5.12 DCMNR2005 – 320 NEWTOWNMOUNTKENNEDY/KILCOOLE.....	6
5.12.1 <i>Applicant's summary description of the project</i>	6
5.12.2 <i>Evaluation Summary</i>	6
5.13 DCMNR2005 – 326 CASTLEBLANEY.....	6
5.13.1 <i>Applicant's summary description of the project</i>	6
5.13.2 <i>Evaluation Summary</i>	6
6. BUDGETARY IMPACT OF RECOMMENDATIONS	6
7. CONCLUDING REMARKS	6

1. INTRODUCTION

The Irish Government is committed to the development of an inclusive Information Society. Initiatives undertaken over recent years have resulted in the provision of significant broadband infrastructure and services and in international broadband connectivity. These initiatives have been driven by a recognition of the increasing importance of the Information Society in promoting economic and social development and cohesion in the future.

The National Development Plan (NDP) 2000 – 2006 states that the stock of public infrastructure in an economy is a major determinant of its competitiveness and of society's capacity to address some of its major social and environmental needs. This infrastructure includes communications networks. The development of communications and e-commerce infrastructure is a priority of the Plan because of the urgent need to expand the capital stock in this area to sustain the level of activity, to enhance the potential of less developed areas and to address market failure, particularly in the Regions.

On 28th February 2005, the Minister for Communications, Marine and Natural Resources announced the next phase (Phase II Call 2) of the Regional Broadband Programme, and issued a Call for Proposals to build advanced Broadband Networks in a further 47 towns around Ireland.

An indicative allocation of €80 million is available over three years (2005-2007) to deliver broadband infrastructure to over 90 towns, funded up to 90% by the Government, in partnership with local authorities. The 47 towns targeted in this current Call (Phase II, Call2) are:

Abbeyfeale	Carrick-on-Suir	Gort	Newcastle West
Ardee	Cashel	Kanturk	Newtownmountkennedy
Athboy	Charleville	Kells	Portarlinton
Bailieborough	Clane	Kilcock	Portrane
Ballinrobe	Clara	Kilrush	Prosperous
Ballyshannon	Cootehill	Kinsealy-Drinan	Rathcoole
Banagher	Duleek	Laytown - Bettystown	Roscrea
Birr	Dunboyne	Loughrea	Templemore
Blessington	Dunmanway	Lusk	Thomastown
Boyle	Dunmore East	Moate	Tipperary
Buncrana	Edenderry	Monasterevan	Tullow
Carndonagh	Fermoy	Muine Bheag (Bagenalstown)	

In addition to the above, it was expected that revised applications would be resubmitted from towns which were not successful in Call 1.

An Instruction to Applicants document was issued on 25th February 2005 inviting proposals seeking National and EU funding that comply with the objectives of the Phase II initiative and the selection criteria described in the invitation.

Applicants were asked to note that the Instruction to Applicants document identified the only basis for the evaluation and that the Minister will not accept liability for any costs whatsoever incurred by applicants in response to the Call. Also, it was noted that the Call was issued subject to the final approval of the Operational Programmes by the European Commission, and the accompanying Programme Complements by the appropriate Monitoring Committees. It was further noted that as a general rule, it is anticipated that funding under the Call will be given to projects planned for completion and commissioning by mid-2007.



The deadline for receipt of applications was set on any one of three closing dates, to cater for the early submission of applications that were at an advanced stage of development. The submission dates were as follows:

14:00 hrs on Monday, 21st March 2005.
14:00 hrs on Monday, 18th April 2005.
14:00 hrs on Monday, 16th May 2005.

This evaluation report deals with applications received by the third closing date, 16th May 2005 and whose evaluation has been prioritised to facilitate contract negotiations with related projects. One applicant, outstanding from the April response date, (Mountmellick) has not provided clarifications requested and its evaluation will be completed with the next batch of applications.

This document records the background to the competition, the response to the call and the subsequent evaluation process, and provides the results of the detailed evaluation and prioritisation of the tenders received.

In the next section we provide a brief overview of the registration, opening, eligibility checking and evaluation procedures followed.

2. RESPONSE TO CALL

The eligible applications are identified in Table 1 on the next page.

A total of 13 applications are prioritised, three of which are resubmissions. All 13 are eligible for evaluations.

These 13 applications were made for grant funding amounting to 11.49M€ for projects estimated to cost 12.77 M€ in total. In our evaluation, we have made recommendations for budget cuts in some projects to emphasise that greater efficiency in deployment should be achieved (eg shorter fibre cable routes coupled with more effective use of wireless). These budget reductions are indicated for the projects affected in the final table in the report, Table 5, page 51.

The table also identifies the applications by an assigned reference number. Resubmissions have been assigned a new number to distinguish the new application. The proposals are numbered in the random order in which the proposals were submitted prior to the submission deadline and prior to opening.



REF NO.	PROJECT TITLE	Towns	Total Project Cost M Euro	Grant Sought M Euro
DCMNR2005-301	Athboy	1	€ 0.59	€ 0.53
DCMNR2005-302	Laytown / Bettystown	2	€ 0.59	€ 0.53
DCMNR2005-303	Duleek	1	€ 0.59	€ 0.53
DCMNR2005-304	Kells	1	€ 3.26	€ 2.93
DCMNR2005-311	Lusk	1	€ 1.05	€ 0.95
DCMNR2005-312	Kinsealy-Drinan	1	€ 1.85	€ 1.66
DCMNR2005-313	Portrane	1	€ 0.50	€ 0.45
DCMNR2005-316	Blessington	1	€ 1.00	€ 0.90
DCMNR2005-317	Enniskerry (<i>re-submission</i>)	1	€ 0.62	€ 0.56
DCMNR2005-318	Kilcoole (<i>re-submission</i>)	1	€ 0.79	€ 0.71
DCMNR2005-319	Newtownmountkennedy	1	€ 0.84	€ 0.76
DCMNR2005-320	Newtownmountkennedy / Kilcoole Composite Proposal	-	€ 1.58	€ 1.42
DCMNR2005-325	Castleblaney (<i>re-submission</i>)	1	€ 1.09	€ 0.98
	Total (excluding DCMNR2005-320)	13	€ 12.77	€ 11.49

Table 1: Summary of Applications submitted in May 2005 and prioritised for evaluation



3. EVALUATION PROCEDURE AND OUTCOME

3.1 EVALUATION AND SUMMARY

All applications were received, registered, opened, checked for eligibility and evaluated according to the procedures and criteria described in the Instructions to Applicants document.

All applications satisfied the eligibility criteria and each was fully evaluated by a number of evaluators. Questions for clarification by the applicants were drafted and agreed by the evaluators before issue to the applicants. The responses were used to refine the evaluation.

Each application was awarded marks under each evaluation criterion, the total mark being used by the evaluators as a guide to the project's ranking and relative merit. The outcome of the evaluation was reviewed and recommendations prepared for the Department.

The following sections summarise the details of the applications and their evaluation results (Section 5), and present recommendations to the Department arising out of the evaluation.

An overview of the applications and their evaluation is presented in the following three tables, as follows:

Table 2: Technical Overview showing the main details of the applications and indicating the number of towns covered, the length of urban fibre proposed, whether a collocation facility, a wireless site or a backhaul radio link is proposed (the radio link to be provided separately under a common procurement exercise within the Programme), the length of any backhaul fibre proposed, and the cost estimated and grant amounts sought.

Table 3: Marks Awarded - Summary showing the marks awarded under each criterion and the total resultant mark for each application. The applications are listed by sequence number.

Table 4: Marks Awarded - Ranked showing the applications ranked by total score according to the evaluation criteria. We believe that this ranking fairly represents the relative merit of the applications according to the evaluation criteria.

The summary tables are followed in Section 4 by some general recommendations arising out of the evaluation of all applications and then by a description of each application and, where appropriate, specific recommendations relating to each.

3.2 EU REQUIREMENTS

3.1.1 Additionality, Displacement, Deadweight

All applications have been evaluated to ensure that the requirements of additionality, avoidance of displacement and deadweight are satisfied. All of the projects recommended to proceed to the next stage satisfy these requirements.

These requirements were defined in the Instructions to Applicants as follows:

Additionality: Additionality is defined as the extent to which an activity is undertaken on a larger scale, takes place at all, or earlier as a result of it being granted special assistance.



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 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.

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 state rather than submit a new proposal.

Table 2 Technical Overview

REF NO.	PROJECT TITLE	Towns	Fibre [km]	Colo	W'less Site	Mast/structure	Backhaul Radio	Backhaul fibre [km]	Total Project Cost MEuro	Grant Sought MEuro
DCMNR2005-301	Athboy	1	-	✓	✓	✓	✓	-	€ 0.59	€ 0.53
DCMNR2005-302	Laytown / Bettystown	2	-	✓	✓	✓	✓	-	€ 0.59	€ 0.53
DCMNR2005-303	Duleek	1	-	✓	✓	✓	✓	-	€ 0.59	€ 0.53
DCMNR2005-304	Kells	1	8.1	✓	✓	✓	✓	-	€ 3.26	€ 2.93
DCMNR2005-311	Lusk	1	4.8	✓	✓	✓	-	-	€ 1.05	€ 0.95
DCMNR2005-312	Kinsealy-Crnan	1	9.2	-	-	-	-	-	€ 1.85	€ 1.86
DCMNR2005-313	Portrane	1	2.7	✓	✓	✓	✓	-	€ 0.50	€ 0.45
DCMNR2005-316	Blessington	1	4.4	✓	✓	✓	✓	-	€ 1.00	€ 0.90
DCMNR2005-317	Enniskerry (re-submission)	1	1.7	✓	✓	✓	✓	-	€ 0.82	€ 0.56
DCMNR2005-318	Kilcoole (re-submission)	1	4.5	✓	✓	✓	-	-	€ 0.79	€ 0.71
DCMNR2005-319	Newtownmounkennedy	1	3.3	✓	✓	✓	-	-	€ 0.84	€ 0.76
DCMNR2005-320	Newtownmounkennedy / Kilcoole Composite Proposal	2	7.9	✓	✓	✓	-	-	€ 1.58	€ 1.42
DCMNR2005-325	Castleblaney (re-submission)	1	5.9	✓	✓	✓	✓	-	€ 1.09	€ 0.98
Total (excluding DCMNR2005-320)		13	45					0	€ 12.77	€ 11.49



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	Adnl. Deadweight Int. Displacement	Performance Indicators	Promote access, Remove barriers	Educational, 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
DCMNR2005-301	Meath County Council	Athoy	3.17	4.00	3.33	2.50	4.50	13.33	8.00	5.00	5.33	4.67	1.00	2.33	4.00	39.17
DCMNR2005-302	Meath County Council	Laytown/Bettystown	3.17	4.00	3.33	2.50	4.17	13.67	5.17	5.33	5.00	4.67	1.00	2.33	3.50	37.83
DCMNR2005-303	Meath County Council	Duleek	3.17	4.00	3.33	2.50	5.00	13.33	5.67	4.50	4.00	4.67	1.00	2.17	3.50	36.83
DCMNR2005-304	Meath County Council	Kells	3.33	4.00	3.50	4.00	5.33	8.17	4.00	5.00	4.00	4.67	1.67	2.67	3.50	32.17
DCMNR2005-311	Fingus County Council	Lusk	2.00	2.33	3.17	2.00	2.33	2.33	2.33	3.67	4.33	4.33	1.00	1.00	3.33	34.67
DCMNR2005-312	Fingus County Council	Kinsale/Othman	2.33	2.00	3.67	2.50	3.33	5.33	5.00	4.00	4.33	4.67	1.00	1.67	2.50	42.33
DCMNR2005-313	Fingus County Council	Foran	3.33	2.50	3.67	2.33	2.33	9.33	4.00	6.67	9.67	4.67	1.00	0.33	3.00	46.83
DCMNR2005-317	Wicklow County Council	Blassington	4.00	4.00	3.67	3.33	5.33	10.67	5.50	6.33	5.33	4.67	1.00	1.00	4.67	49.50
DCMNR2005-317	Wicklow County Council	Enniskerry	2.50	2.67	3.67	2.33	2.33	5.67	4.33	4.00	3.00	4.67	1.33	1.00	2.17	39.67
DCMNR2005-318	Wicklow County Council	Kilcoole	3.00	3.17	3.67	3.33	4.33	19.67	4.67	4.33	5.67	4.67	1.00	1.00	3.67	52.17
DCMNR2005-319	Wicklow County Council	Newtownmountkennedy	3.50	3.17	3.67	3.00	4.67	9.00	5.00	4.33	5.17	4.67	1.00	1.00	3.33	51.50
DCMNR2005-326	Wicklow County Council	Newfrankfort/Kilcoole	3.25	3.17	3.67	3.00	4.50	9.33	4.83	4.50	5.25	4.67	1.00	1.00	3.33	51.50
DCMNR2005-326	Monaghan County Council	Castletaney	3.67	3.33	3.67	3.17	5.67	10.00	5.50	4.83	5.67	4.67	1.00	1.00	6.50	59.67

Table 3 -

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. Ht. Displacem. emnt	Performance Indicators	Promote access. Remove barriers	Educations, Community, Voluntary etc	Services in Deficit Areas	Sum Marking
DCMR2005-317	Wicklow County Council	Blessington	4.00	4.00	3.67	3.33	5.33	10.67	5.50	6.33	5.33	4.67	1.00	1.00	4.67	59.58
DCMR2005-311	Meath County Council	Alibity	3.17	4.00	3.33	2.50	4.50	13.33	6.00	5.00	5.33	4.67	1.00	3.33	4.00	39.17
DCMR2005-326	Midlothian County Council	Castletibber	3.67	3.33	3.67	3.67	5.67	10.00	5.50	4.83	5.67	4.67	1.00	1.00	6.50	50.67
DCMR2005-302	Meath County Council	Laytown/Bethaylawn	3.17	4.00	3.33	2.50	4.17	13.67	5.17	5.33	5.00	4.67	1.00	2.33	3.60	51.83
DCMR2005-303	Meath County Council	Duleek	3.17	4.00	3.33	2.60	5.00	13.33	5.67	4.50	4.00	4.67	1.00	2.17	3.50	56.83
DCMR2005-304	Meath County Council	Kells	3.63	4.00	3.50	4.00	5.33	6.17	4.00	5.00	4.00	4.67	1.67	2.50	3.50	57.17
DCMR2005-318	Wicklow County Council	Kilsale	3.00	3.17	3.67	3.33	4.33	9.67	4.67	4.33	5.67	4.67	1.00	1.00	3.67	52.17
DCMR2005-319	Wicklow County Council	Newtownpath/Finjessy	3.50	3.17	3.67	3.00	4.67	9.00	5.00	4.33	5.17	4.67	1.00	1.00	3.33	51.50
DCMR2005-328	Wicklow County Council	Newtownpath/Kilsale	3.25	3.17	3.67	3.00	4.50	9.33	4.83	4.50	5.25	4.67	1.00	1.00	3.33	51.50
DCMR2005-313	Fingal County Council	Pottane	3.33	2.50	3.67	2.33	2.33	9.31	4.00	6.67	3.67	4.67	1.00	0.33	3.00	46.83
DCMR2005-312	Fingal County Council	Kingsale-Driman	2.33	2.00	3.67	2.50	3.33	5.33	5.00	4.00	4.33	4.67	1.00	1.67	2.50	47.33
DCMR2005-317	Wicklow County Council	Embsay	2.50	2.67	3.67	2.33	2.33	5.67	4.33	4.00	3.00	4.67	1.33	1.00	2.17	36.67
DCMR2005-311	Fingal County Council	Barck	2.00	2.33	3.17	2.00	2.33	2.33	2.33	3.67	4.33	4.33	1.00	1.00	3.66	34.67

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 replay 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 this report) 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 – 301 ATHBOY

5.1.1 Applicant's summary description of the project

Summary Description of the Project

Construct a Broadband Wireless Facility in Athboy area. The traffic generated on the wireless facility will be backhauled to national and international networks via a radio link to the Navan MAN. A radio mast will be provided at a council site at the water reservoir on the Hill of Ward. The wireless facility will facilitate broadband access for all businesses and residences in the town and surrounding areas at more affordable prices.

The composition of the Wireless Facility is as follows:

A mast, approximately 25m in height will be erected on the council water reservoir site that overlooks the town. An equipment cabin will be provided at the base of the mast. A single hop radio link will provide backhaul for the wireless facility into the Navan MAN. The radio link will operate at 18Gz and will have a capacity of STM 4.

This enabling infrastructure will be operated on a shared open access basis. Products for lease on the Wireless Facility will be space for mounting antennae and equipment space in the cabin. Operators such as Telcos, ISPs, wireless operators and local entrepreneurs will lease capacity and provide services to the end users. The facility will be managed by a management services entity on behalf of Meath County Council. The infrastructure can develop and grow in the future. This will be driven by market demand and revenues generated.

5.1.2 Evaluation Summary

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

Project Elements

- The development of a wireless site at the Council Reservoir on the Hill of Ward.
- The deployment of a 25m radio mast at the wireless site.
- The deployment of a radio collocation cabin at the wireless site.
- The deployment of a radio mast in Navan town to support backhaul radio. (Note this mast will also support the deployment of wireless access services in Navan town in conjunction with the fibre MAN planned for the town, but this aspect has not been explored in the proposal.)
- The project supports the deployment of a backhaul radio link to Navan town, approximately 15km away, and interconnection to the MAN and with BT Ireland's backbone network there.

Location

The project provides wireless access facilities in both Athboy and Navan towns.

Coverage

The applicant indicates that 689 potential users are within reach of the radio mast. A further 400 business users are predicted in the next six years.



The coverage estimates were considered to be exaggerated, with high computer usage figures given, especially in the smaller organisations. However coverage provided by the project in Navan town has been omitted.

Social Aspects

The applicant indicates that the wireless network reaches 9 schools with a total of 1,378 pupils.

Financial Issues

The cost of the second radio mast in Navan town has been underestimated. However due to overestimates of costs in other areas it was not considered necessary to revise the business plan.

The business plan indicates an EBIDT surplus of €468, 236 over ten years.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to Navan amount to €419, 896.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 25 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. The provision of a radio mast in Navan will facilitate the deployment of wireless access services in Navan town, has this aspect been taken into account in the selection of a site for the mast ?
3. Please provide a map of Navan town showing the location of the mast relative to the MAN.
4. Does the revenue estimates include revenue for the rent of space on the Navan mast ?
5. While two main masts are planned, the estimates capital costs show only one main mast, and another mast, please clarify these items. Note it is not required to adjust the business plan.
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 project supports the deployment of a radio mast in Navan town, which will enhance the availability of services in Navan as well as Athboy. However it is important that the site and type of the mast chosen also maximise the potential market in Navan, while ensuring that other mast operators in the town are not crowded out.
2. The budget for the Navan Mast is allocated to the Kells project DCMNR-2005-304, which should be treated as a joint Kells/Navan project.
3. While the backhaul operating cost indicated by the Applicant is high, this assumes the use of very high capacity STM-4 radio links. It is likely that lower cost solutions would be available to a network operator producing significant capital and operating cost savings and making the economics of the project more viable.
4. The applicant has not clearly demonstrated that the backhaul radio route has a viable path propagation profile; the graph provided indicates that the clearance is marginal over a significant part of the route.

Recommendations

1. It is recommended that the project be supported.
2. The applicant has proposed that a collocation cabin be deployed at the wireless site. It is recommended that this facility be replaced by a simple equipment shelter, providing a cost saving of about €140,000.
3. It is recommended that the propagation path profile be reviewed and a decision made as to whether the planned mast height is sufficient.



5.2 DCMNR2005 – 302 LAYTOWN-BETTYSTOWN

5.2.1 Applicant's summary description of the project

Summary Description of the Project

Construct a Broadband Wireless Facility in Laytown-Bettystown area. The traffic generated on the Wireless Facility will be backhauled to national and international networks on radio links to the Drogheda MAN and ESB Telecom (ESBT) network. A radio mast will be provided at a council site at the pumping station behind the Eircom exchange. The wireless facility will facilitate broadband access for all businesses and residences in the town and surrounding areas at more affordable prices.

The composition of the Wireless Facility is as follows:

A mast, approximately 25m in height will be erected at the council pumping station site. An equipment cabin will be provided at the base of the mast. A single hop radio link will provide backhaul for the wireless facility into the Drogheda MAN, from where connection to BT is available. A second single hop radio link to the Hill of Cairns will provide diversity. The latter will be linked to ESB Telecom at their POP at the transformer station at Platin as part of the Duleek proposal. This ensures Bettystown will be connected to the ESBT network. The radio links will operate at 18Gz and will have a capacity of STM 4.

This enabling infrastructure will be operated on a shared open access basis. Products for lease on the Wireless Facility will be space for mounting antennae and equipment space in the cabin. Operators such as Telcos, ISPs, wireless operators and local entrepreneurs will lease capacity and provide services to the end users. The facility will be managed by a management services entity on behalf of Meath County Council. The infrastructure can develop and grow in the future. This will be driven by market demand and revenues generated.

5.2.2 Evaluation Summary

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

Project Elements

- The development of a wireless site at the Council water pumping site in Bettystown.
- The deployment of a 25m-radio mast at the wireless site.
- The deployment of a collocation cabin at the wireless site.
- The deployment of a radio mast on the Collocation centre or civic offices building in Drogheda.
- The project supports the deployment of a backhaul radio link to Drogheda MAN, approximately 8km away, and interconnection with BT Ireland's backbone network via the Drogheda MAN.
- The project also supports the deployment of a backhaul radio link to the ESB Telecom backbone network at Platin via the Hill of Carnes.
- Note this project is in part dependant on the deployment of a radio mast on the Hill of Carnes reservoir site near Duleek, part of project DCMNR2005-303

Location

The project provides wireless service in the Laytown-Bettystown area, while also extending the existing MAN in Drogheda to include wireless access.



Coverage

The applicant indicates that the wireless network reached 637 potential users in the town. A further 1,500 users are predicted as a result of the development of zoned land in the area over the next six years.

The coverage estimates were considered to be exaggerated, with high computer usage figures given, especially in the smaller organisations. However coverage provided by the project in Drogheda has been omitted.

Social Aspects

The wireless network reached 10 schools with a total pupilage of 637.

Financial Issues

The cost of backhaul radio equipment and the NPV cost of operating the equipment amounts to €852,538 over ten years.

The project plans to have a surplus of €868,736 over ten years.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 25 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. The provision of a radio mast in Drogheda will facilitate the deployment of wireless access services in Drogheda town, has this aspect been taken into account in the selection of a site for the mast ?
3. If a mast is deployed at the collocation cabin in Drogheda will a full mast be required; has this cost been taken into account ?
4. Does Louth County Council support this plan ?
5. Please clarify the proposed interconnect arrangement with ESB Telecom at Platin. Has the cost of the radio equipment linking to Platin also been included in the business plan ? Is there an existing ESB Telecom mast in Platin.
6. Does the revenue estimates include revenue for the rent of space on the mast at the Hill of Carnes and Drogheda.
7. The graphs provides do not fully demonstrate that a clear line of sight exists between Bettystown and the hill of Carnes, can you confirm that the line of sight provides sufficient clearance for a radio link ?
8. While two main masts are planned, the estimates capital costs show only one main mast, and another mast, please clarify these items. Note it is not required to adjust the business plan.
9. 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 proposes the deployment of a radio link to Drogheda town; a simple mast structure is proposed for Drogheda, sufficient to support a radio dish. It would be reasonable to look at the development of a full wireless site and large radio mast on the Drogheda MAN. This is considered further in the review of the Duleek proposal.
2. While the backhaul operating cost indicated by the Applicant is very high, this assumes the use of very high capacity STM-4 radio links. It is likely that lower cost solutions would be available to a network operator producing significant capital and operating cost savings and making the economics of the project more viable.

Recommendations

1. It is recommended that the project be supported.
2. The applicant has proposed that a collocation cabin be deployed at the wireless site. It is recommended that this facility be replaced by a simple equipment shelter, providing a cost saving of about €140,000.



5.3 DCMNR2005 – 303 DULEEK

5.3.1 Applicant's summary description of the project

Summary Description of the Project

Construct a Broadband Wireless Facility in Duleek area. The traffic generated on the Wireless Facility will be backhauled to national and international networks via a radio link to the Drogheda MAN and ESB Telecom network. A radio mast will be provided at a council site at the water reservoir on the Hill of Carnes. The wireless facility will facilitate broadband access for all businesses and residences in the town and surrounding areas at more affordable prices.

The composition of the Wireless Facility is as follows:

A mast, approximately 25m in height will be erected on the council water reservoir site that overlooks the town. An equipment cabin will be provided at the base of the mast. A single hop radio link will provide backhaul for the wireless facility into the Drogheda MAN, from where connection to BT is available. A second single hop radio link to ESB Telecom (ESBT) at their point of presence (POP) at the transformer station at Platin will provide diversity on the backhaul.

The radio links will operate at 1.8Gz and will have a capacity of STM 4 (622Mbits/s). This enabling infrastructure will be operated on a shared open access basis. Products for lease on the Wireless Facility will be space for mounting antennae and equipment space in the cabin. Operators such as Telcos, ISPs, wireless operators and local entrepreneurs will lease capacity and provide services to the end users. The facility will be managed by a management services entity on behalf of Meath County Council. The infrastructure can develop and grow in the future. This will be driven by market demand and revenues generated.

5.3.2 Evaluation Summary

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

Project Elements

- The development of a wireless site at the Council reservoir on the Hill of Carnes near Duleek.
- The deployment of a 25m-radio mast at the wireless site.
- The deployment of a collocation cabin at the wireless site.
- The project supports the deployment of a backhaul radio link to Drogheda.
- The project also supports the deployment of a backhaul radio link to the ESB Telecom backbone network at Platin via the Hill of Carnes.

Location

The wireless network provide service in Duleek town, the installation of a radio mast in Drogheda also provide wireless access coverage in that town.

Coverage

The applicant indicates that the wireless network reached 762 potential users in the town. A further 700 users are predicted as a result of the development of zoned land in the area over the next six years.



The coverage estimates were considered to be exaggerated, with high computer usage figures given, especially in the smaller organisations. However coverage provided by the project in Drogheda has been omitted.

Social Aspects

The wireless network reached 5 schools with a total pupilage of 336.

Financial Issues

The revenue figures also assume a high rent from mast space, however given the high estimated surplus of €1,583,236 over ten years, a smaller rental amount is unlikely to affect the financial viability of the project.

The capital cost of radio equipment and the NPV ten year operating cost amounts to €852,538 this estimates excludes some radio and ADM equipment that would be required to complete the backhaul radio links, but does allow for two separate links one to Drogheda the other to Platin.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 25 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. The cost estimates indicate that a second mast at a cost of €10,000 will be installed, please clarify the location and use of this mast.
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 proposed radio mast on the Hill of Carnes is at the maximum distance from Duleek for acceptable wireless access coverage.
2. The project supports the deployment of a radio link to Drogheda; a simple mast structure is proposed, sufficient to support a radio dish. It would be reasonable to consider the development of a full wireless site and large radio mast in Drogheda on the route of the MAN. There are several advantages to this proposal: i) it would ensure the quality of the backhaul radio links to Laytown-Bettystown, Duleek and other nearby towns. ii) The mast would support wireless access service in Drogheda, which would provide a useful additional service as the original MAN project offered fibre only and iii) The additional revenue provided by a full radio mast in Drogheda would help ensure the overall viability of the broadband programme.
3. However it is important that the site and type of the mast chosen also maximise the potential market in Drogheda, and ensure that other mast operators in the town are not crowded out.



4. The project supports a backhaul route to Platin to provide interconnection with the ESB Telecom network at that point. However the Applicant has indicated that no radio mast currently exists there and one would need to be installed, presumably by the ESB Telecom. However the project is not dependant on this route for backhaul as the link to Drogheda MAN would provide interconnection via BT Ireland's network.
5. While the backhaul operating cost indicated by the Applicant is very high, this assumes the use of very high capacity STM-4 radio links. It is likely that lower cost solutions would be available to a network operator producing significant capital and operating cost savings and making the economics of the project more viable.

Recommendations

1. It is recommended that the project be supported.
2. The applicant has proposed that a collocation cabin be deployed at the wireless site. It is recommended that this facility be replaced by a simple equipment shelter, providing a cost saving of about €140,000.
3. The DCMNR should consider funding a full wireless site and radio mast in Drogheda, the facility would be expected to cost about €150,000. The size and location of the radio mast in Drogheda should be chosen to maximise its potential usage and revenue. The project should be treated as a joint in Duleek/Drogheda project and would require the support of Louth County Council.
3. With reference to section 10.2 of the Guidelines, to ensure that existing investment in masts in the Drogheda 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.
4. The absence of a mast at Platin requires further review. The DCMNR could consider installing a mast at the site if ESB Telecom does not make the investment. However it is not clear that service providers would make use of the additional backhaul resilience provided, and the investment needs further review.



5.4 DCMNR2005 – 304 KELLS

5.4.1 Applicant's summary description of the project

Summary Description of the Project

Construct a Metropolitan Area Network (MAN) and a Broadband Wireless Facility in Kells. The MAN route captures the commercial centres, schools, government and local authority offices, and business parks at Lloyd, Climber Hall and Bective street. Critical nodes on the MAN are the co-location centre, the Eircom exchange, Business & Technology parks, mast site, spire of Lloyd and areas designated for future business development. All critical nodes and business parks will be provided with diversity. The co-location centre is situated alongside the Eircom exchange on a Council site. The traffic generated on the MAN and wireless facility will be backhauled to national and international networks via a microwave radio link to the Navan MAN. The latter was approved for funding in 2004. It will be connected to the BT network. A radio mast and equipment cabin will be provided at a council site at the reservoir at Lloyd overlooking the town. The wireless facility will facilitate broadband access for all businesses and residences in the town and surrounding areas at more affordable prices in addition to meeting the backhaul requirement.

The composition of the MAN is as follows:

4 x 110mm ducts, 4 x 32mm sub ducts, 1 x 96 fibre optic cable, cable jointing, turning and access chambers and a co-location cabin, 10m x 3m x 3m. The latter will be equipped with, ESB power, UPS, standby generator socket and switch, racks and trays, dual air conditioning units, remote monitoring and alarm system and an ODF.

The composition of the Wireless Facility is as follows:

A mast, approximately 25m in height will be erected on the council water reservoir site at Lloyd that overlooks the town. This site is served with diversity on the MAN. An equipment cabin will be provided at the base of the mast. A microwave radio link to Navan will provide backhaul for the MAN and Wireless Facility traffic. A mast will be required at Navan at the site of the MAN co-location. The radio link will operate at 18GHz and will have a capacity of STM 4 (622Mbits/s).

This enabling infrastructure will be operated on a shared open access basis. Products for lease on the MAN will be ducts, sub ducts, dark fibre and co-location floor and shelf space. Products for lease on the Wireless Facility will be space for mounting antennae and equipment space in the cabin. Operators such as telcos, ISPs, wireless operators and local entrepreneurs will lease capacity and provide services to the end users. The facility will be managed by a management services entity on behalf of Meath County Council. The infrastructure can develop and grow in the future. This will be driven by market demand and revenues generated.

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 a 8.1km duct and fibre network in Kells town.
- The development of a wireless site at the council water reservoir at Lloyd.
- The deployment of a radio equipment cabin at the wireless site.
- The deployment of a radio mast in Navan, near the collocation centre.
- The deployment of a collocation cabin close to Eircom's exchange.



- The project will support the deployment of a backhaul radio link to Navan town (approximately 15km away) and interconnection with BT Ireland's national backbone network there.

Location

The project provides service in Kells and also wireless facilities in Navan.

Coverage

The applicant indicates that the fibre network reached 1,717 potential users in the town. A further 1,200 users are predicted as a result of business development in the area over the next six years.

The applicant indicates that the wireless network reached 1,594 potential users in the town. A further 1,230 users are predicted as a result of business development in the area over the next six years.

The coverage estimates were considered to be exaggerated, with high computer usage figures given, especially in the smaller organisations. However coverage provided by the project in Drogheda has been omitted.

Social Aspects

The fibre network reached 6 schools with a total pupilage of 972.

The wireless network reached 11 schools with a total pupilage of 1,136.

Financial Issues

The revenue estimates are slightly overestimates as they include backhaul radio revenue, however the overestimates is less than 10% and does not significantly impact the business plan.

The revenue figures also assume a high rent from mast space, however given the high estimated surplus of €1,179,170 over ten years, a smaller rental amount is unlikely to affect the financial viability of the project.

The capital cost of radio equipment and the NPV ten year operating cost amounts to €471,967

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 25 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. The proposal indicates that two operators, Digiweb and Net One Broadband provide wireless access services in the town; please indicate how this proposal will impact these operators.
2. Do Digiweb and Net One Broadband support the proposal ?
3. 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.



4. Please confirm that the list of organisations given in Appendix 10 comply with the definition of being within reach of the network as given in the Technical Guidelines Version Two section 12 for the current definition of the reach, note that the definition have been revised for this call. If not please revise appendix 10.
5. Please confirm that the Navan radio mast referenced in this proposal, is the same mast referenced in the Athboy proposal (DCMNR2005-301)
6. The proposal notes the length of the fibre to be 9.5km, however the business plan costing indicate the length is 8.1km please clarify.
7. Please clarify the content of the item "other costs" at a cost of €127,000.
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 did not fully justify the size of the project and the expenditure on duct and fibre against the potential user demand; it is possible that the long-term economic viability of the project could be strained if it were to be implemented as proposed.
2. The project supports the deployment of a radio link to Navan town; and the installation of a radio mast, which will enhance the availability of wireless access services in Navan as well as Kells. There are several advantages to this proposal: i) it would ensure the quality of the backhaul radio links with nearby towns. ii) The mast would support wireless access service in Navan, which would provide a useful additional service as the original MAN project offered fibre only and iii) The additional revenue provided by a full radio mast in Navan would help ensure the overall viability of the broadband programme. However it is important that the site and type of the mast chosen maximises the potential wireless access market in Navan, while ensuring that other mast operators in the town are not crowded out.
3. While the backhaul operating cost indicated by the Applicant is very high, this assumes the use of very high capacity STM-4 radio links. It is likely that lower cost solutions would be available to a network operator producing significant capital and operating cost savings and making the economics of the project more viable.

Recommendations

1. It is recommended that the project be supported. However it is recommended that the project budget be reduced by 33%, a target that should be achieved through fibre routing efficiencies.
2. The applicant has proposed that a collocation cabin be deployed at the wireless site. It is recommended that this facility be replaced by a simple equipment shelter, providing a cost saving of about €140,000.
3. The proposal includes a sum of €100,000 to cover archaeological cost, it is recommended that this cost should reviewed and minimised during contract negotiations.
4. The DCMNR should consider funding a full wireless site and radio mast in Navan, the facility would be expected to cost about €150,000. The size and location of the



radio mast in Navan should be chosen to maximise its potential usage and revenue. The project should be treated as a joint in Kells/Navan project.

5. With reference to section 10.2 of the Guidelines, to ensure that existing investment in masts in the Navan 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.



5.5 DCMNR2005 – 311 LUSK

5.5.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Lusk including a Co-Location facility, interconnection with Eircom, a potential interconnect with BT-Ireland together with the installation of a number of primary customer connections. The approximate length of the proposed MAN is 4.8kms.

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 a 4.9km 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 project supports the use of an existing Vodafone mast for mast rental purposes; this is facilitated by routing the fibre close to the mast. If mast rental is not possible an alternative wireless site may be considered.

Location

The project provides service in Lusk Co. Dublin.

Coverage

The applicant indicates that excluding schools the fibre network reaches 58 potential users. Many of the potential organisation reached were small and unlikely to be immediately interested in fibre connections.

No estimate of the reach of the proposed radio mast was provided.

Social Aspects

The applicant indicates that the fibre network reaches one schools with 20 pupils.

Financial Issues

The applicant uses non-standard civil works costs; with standard costs the overall project expenditure rises to €1.28m a 22% increase.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.



The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average 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 the application will remain valid until the 31 Dec 2005.
2. The proposal notes that: *In these circumstances there is a compelling case for a Metropolitan Area Network in Lusk and, by virtue of its existing commuting pattern to Dublin, a particular potential for the development of tele-commuting. Population growth is likely to continue in Lusk and this adds further to the potential for increased demand for broadband connectivity. In addition, the relatively close proximity of Swords, Rush and Skerries adds significantly to the overall market and provide the potential for widespread development of broadband connectivity throughout the north-east of Fingal.*

Please provide further information regarding the growth potential of the town particularly regarding businesses and other organisations.

3. Please confirm that no operator is currently offering dark fibre or duct space for rent in the town.
4. The operating cost table of the business plan has not been fully completed, please complete and submit a revised plan.
5. 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.
6. Please indicate the planned location of the radio mast.
7. Please clarify the low cost of the proposed mast.
8. Please provide a map of the line of sight coverage area of the radio mast.
9. 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 did not demonstrate that the potential demand in the town for fibre based broadband services, justified the planned expenditure.
2. The project underestimates the cost of the development of a wireless site and radio mast, as it assumes the availability of mast space on an existing Vodafone mast, a possibility that has not been confirmed; only a token amount is allocated to an alternative.

Recommendations

1. It is recommended that the fibre element of the project should be dropped and that the plan should focus on wireless access.



2. The applicant should provide a report to the DCMNR, offering an assessment of the viability of the Vodafone mast to offer mast space supporting broadband wireless access services in Lusk, taking account of any technical, commercial or capacity restrictions. The report should reach a conclusion on the viability of the mast to offer wireless access services in the town. A two-week time frame is considered sufficient to prepare the report.
3. If the report concluded that the existing mast is not available then it is recommended that the project proceed to the detailed design stage as a wireless only project.
4. If the existing mast is available for rent then the project will need to be redesigned, in a manner which does not negatively impact on the operator's market for mast space rental.



5.6 DCMNR2005 – 312 KINSEALY-DRINAN

5.6.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the towns of Kinsealy-Drinan including a Co-Location facility, interconnection with Eircom, the potential for interconnection to numerous other Telecommunication networks, Dublin City Centre and the T-50 Network, and the installation of a number of primary customer connections. The approximate length of the proposed MAN is 9.12kms.

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 a 9.2km fibre and duct network in the Kinsealy-Drinan area.
- The deployment of a collocation centre in Swords

Location

The network provides services in the Kinsealy, Drinan and Swords areas.

Coverage

The applicant indicates that excluding schools the fibre network reaches 909 potential users. However about 600 of these users are in the area of the network that extends into Swords.

Social Aspects

The applicant indicates that the fibre network reaches 2 schools with 40 pupils.

Financial Issues

The applicant uses non standard civil works costs; applying standard figures the overall project cost rises to €2,223,968 a 20% increase.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.

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. Please confirm that no operator is currently offering dark fibre or duct space for rent in the coverage area of the project.
3. The operating cost table of the business plan has not been fully completed, please complete and submit a revised plan.
4. Please indicate which alternative backbone networks will be intercepted by the planned duct route, and indicate the locations on the network map.
5. 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.
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. A significant part of the potential demand estimated for this network derives from an extension of the project into a business park in Swords.
2. The project business case is unsatisfactory as it is dependent on revenue generated in the Swords area.
3. The geographic layout of the area resulted in a long and linear fibre route that offers no resilience to business users.
4. Kinsealy-Drinan is a location which includes some low-density population areas, some high-density residential sections and some industrial areas, without a clearly defined centre or boundary. It is mentioned in the 2002 census but does not form a town in the conventional sense, and is very poorly defined for the purposes of telecommunications planning.

Recommendations

1. It is recommended that the DCMNR consider dropping Kinsealy-Drinan from the Regional Broadband Programme.
2. If the project is to go ahead it is recommended that it be redesigned, focussing on the Kinsealy/Drinan areas.
3. It is recommended that if a fibre network is planned, one offering greater resilience to larger business customers should be provided. Or as an alternative, a purely wireless solution could be considered.
4. A budget reduction of 45% would be an appropriate target.



5.7 DCMNR2005 – 313 PORTRANE

5.7.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Portrane including a high site together with the installation of a number of primary customer connections. Interconnection with Eircom and BT-Ireland is possible via the link to the Donabate MAN. The link to the Donabate MAN allows the sharing of the Donabate Co-Location facility and an interconnection with Eircom in Donabate. The approximate length of the Portrane MAN is 2.66kms

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 a 2.66km fibre and duct network in Portrane.
- The project will avail of a collocation centre being installed as part of the Donabate project.
- The development of a wireless site, two potential sites are being considered.
- The installation of a radio mast
- The project supports a backhaul radio route to Donabate
- The project support interconnection with BT Ireland's backbone network.

Location

The network provides service in the Portrane area.

Coverage

The applicant indicates that the fibre network reached 63 potential users.

Social Aspects

The network does not reach any school.

Financial Issues

The applicant uses non standard civil works costs; applying standard figures the overall project cost rises to €645,711 a 29% increase.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link to Donabate amount to €217,483.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.



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 provide a propagation path profile between the radio masts in Donabate and Portrane.
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. Please complete a copy of the table below for the Portrane to Donabate backhaul 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 radio backhaul route.

6. 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.
7. The proposal notes that the market for broadband services in the town is 11 customers, but indicates there is potential for development; please provide evidence of this potential for market growth.
8. Please confirm that the list of potential customers given in section 3.4, 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.
9. 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 potential coverage of the network is very low, it is difficult to see how the fibre plan could be made more efficient as a major part of the investment is used to provide a fibre interconnect to BT Ireland's network via the proposed Donabate MAN.
2. A purely radio solution should be considered as an alternative to fibre.
3. The applicant did not fully clarify the situation regarding the availability of mast space for rent in the town.

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



Recommendations

1. It is recommended that the fibre elements of the project be dropped, as the demand for fibre based broadband services is too low to support the investment.
2. It is recommended that the project advance to the detailed design stage as a purely wireless project.
3. With reference to section 10.2 of the Guidelines, to ensure that existing investment in masts in Portrane town is 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.



5.8 DCMNR2005 – 316 BLESSINGTON

5.8.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Blessington 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 high site in the town. The approximate length of the Blessington MAN is 4.41kms.

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 4.4km 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 County Council's local area offices.
- The deployment of a radio mast
- The project supports a radio backhaul route to the ESB Telecom's national backbone network via Kippure, Enniskerry and Fassore.

Location

The network provides service in the Blessington area.

Coverage

The applicant indicates that the fibre network reaches 250 potential users.

Social Aspects

The fibre network reaches one school with 20 pupils.

Financial Issues

The applicant uses non standard civil works costs; applying standard figures the overall project cost rises to €1,307,847 a 31% increase.

The capital and NPV operating cost of the radio equipment required to provide a backhaul radio link amounts to 217,483

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.



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. 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 backhaul radio to interconnect with ESB Telecom's network is mentioned in the proposal no detail is given, please provide further information.
6. Please complete a copy of the table below for the backhaul routes proposed.

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 radio backhaul route.

7. Please provide a propagation path profile for the backhaul radio routes.
8. 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.
9. 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 proposed wireless site and radio mast do not provide full coverage in the town and a significant part of the town, including an industrial and business area, would receive no service.
2. The applicant has not provided a radio path propagation profile; as a result it is not possible to indicate whether the proposed backhaul route via Kippure mast is technically viable.

² Annual rent could be the cost of site rental or the cost of mast space as applicable.



Recommendations

1. The project should be supported, with a cost budget of €1.1m.
2. The location and size of the proposed radio mast need to be re-assessed, firstly to ensure greater wireless access coverage in the town and secondly to ensure that a radio backhaul route via Kippure mast is technically viable. A budget of only €30,000 has been allocated to the wireless site preparation, the purchase of a mast, equipment shelter and the provision of services. It should be assumed that this expenditure could rise by an additional €90,000.
3. Consideration should be given to replacing the planned backhaul route to Kippure, Enniskerry and Fassore with a direct link from Kippure to Fassore, if this is technically possible, as the intermediate hop to Enniskerry may be unnecessary. This may impact the size and location of the Enniskerry mast.



5.9 DCMNR2005 – 317 ENNISKERRY

5.9.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Enniskerry 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 high site in the town. The approximate length of the Enniskerry MAN is 1.68kms.

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 1.7km fibre and duct network in Enniskerry.
- The deployment of a collocation centre
- The development of a wireless site at the local authority reservoir.
- The installation of a radio mast
- The project supports a backhaul radio route to interconnect with ESB Telecom's backbone network.

Location

The network provides coverage in Enniskerry town.

Coverage

The applicant indicates that the fibre network reaches 71 potential users in the town.

Social Aspects

The fibre network reaches two 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 €790,000 a 25% increase.

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 €217,483.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.



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 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.
4. Please provide a propagation path profile between the radio mast in Enniskerry and ESB Telecom's mast.
5. Please confirm that there is no public or private mast space currently available or planned for rent in Enniskerry. If other mast space is available please provide details.
7. Please confirm that the list of potential customers given in table 3.1 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 potential market in Enniskerry is very low with few organisations likely to be interested in a fibre network connection. The town is currently not industrialised, and there is little indication of increasing industrialisation.
2. The proposed wireless site and radio mast do not provide full coverage in the town. There are large areas of the town where wireless access will be unavailable.
3. The applicant has not provided a radio path propagation profile; as a result it is not possible to indicate whether the proposed backhaul routes to Fassaroe and via Kippur are technically viable.

Recommendations

1. It is recommended that the fibre element of the project be dropped, as the demand for fibre based broadband services is too low to support the investment.
2. The location and size of the proposed radio mast need to be re-assessed and a new site found, firstly to ensure greater wireless access coverage in the town and secondly to ensure that a radio backhaul route to the ESB mast at Fassaroe is technically viable. A budget of only €40,000 has been allocated to the wireless site preparation, the purchase of a mast, equipment shelter and the provision of services. It should be assumed that this expenditure could rise by an additional €80,000.
3. The applicant should provide a wireless access coverage map as well as a backhaul radio propagation path profile for the radio mast.



4. With reference to section 10.2 of the Guidelines, to ensure that existing investment in masts in the Enniskerry town is 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. It should be specifically investigated whether the ESB Telecom Mast at Fassaroe could provide wireless access service to the town on a significant scale, and if it can, then support for the project should be reconsidered.
5. The applicant should provide a report to the DCMNR, offering an assessment of the viability of the ESB telecom mast as Fassaroe to offer mast space supporting broadband wireless access services in Enniskerry, taking account of any technical, commercial or capacity restrictions. The report should reach a conclusion on the viability of the mast to offer wireless access services in the town. A two-week time frame is considered sufficient to prepare the report.
6. If the report concluded that the existing mast is not available then it is recommended that the project proceed to the detailed design stage as a wireless only project. A cost budget of €0.55m is considered an appropriate target.
7. If the existing mast is available for rent then the project will need to be redesigned, in a manner which does not negatively impact on the operator's market for mast space rental.



5.10 DCMNR2005 – 318 KILCOOLE

5.10.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Kilcoole including interconnection with Eircom via the link with Newtownmountkennedy and the sharing of the Newtownmountkennedy Co-Location Facility. The Network also provides for the installation of a number of primary customer connections. The MAN includes for interconnection with the ESB telecom fibre wrap system. The project also includes for the facility of a wireless high site in the town. The approximate length of the Kilcoole MAN is 4.54kms.

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 4.5km fibre and duct network in Kilcoole.
- No collocation centre is provided however a part of the fibre route interconnects with that of the Newtownmountkennedy project. It is planned that the collocation centre in Newtownmountkennedy will be used to provide service for Kilcoole.
- The development of a wireless site at the local authority water tower
- The installation of a radio mast
- The project provides a fibre interconnect to the ESB Telecom backbone network.

Location

The network provides services in Kilcoole town.

Coverage

The applicant indicates that the fibre network reaches a total of 288 potential users.

Social Aspects

The fibre network reaches two schools with a total of 32 pupils.

Financial Issues

The applicant uses non standard civil works costs; applying standard figures the overall project cost rises to €1.16m a 46% increase.

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 €217,483.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.



The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.

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 the cost of the project, in the A1 form it is given as €791,988 while section 2.3 of the proposal mentions a figure of just over €1m. If required please submit a revised and signed A1 form.
4. In section 3.1 interconnection with Eircom is mentioned, please confirm whether this is in Newtownmountkennedy or Kilcoole, in the latter case please indicate what technical type of interconnect can be supported at Eircom's cross-connects.
5. Is Eircom Obligated to provide interconnect at a cross-connect cabin ?
6. 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. .
7. Please indicate the route of the backhaul radio, the cost of which is included in page 5 of the business plan.
8. Please provide a propagation path profile for the proposed backhaul radio route.
9. Please confirm that there is no public or private mast space currently available or planned for rent in Kilcoole. If other mast space is available please provide details.
10. Please confirm that the list of potential customers given in section 3 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.
11. 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. No collocation centre is provided, however a part of the fibre route interconnects with that of the Newtownmountkennedy project. It is planned that the collocation centre in Newtownmountkennedy will be used to provide service for Kilcoole.
2. As the project will share a collocation facility, it is dependent on the Newtownmountkennedy project.
3. The location and size of the proposed radio mast need to be re-assessed, to ensure greater wireless access coverage in the town. A budget of only €20,000 has been allocated to the wireless site preparation, the purchase of a mast, equipment shelter and the provision of services. It should be assumed that this expenditure could rise by an additional €100,000.



4. The project is dependent on the provision of a fibre interconnect with ESB Telecom's backbone network.

Recommendations

1. It is recommended that the project should be supported.
2. It is recommended that the project proceed only after establishing that the ESB Telecom will agree to support the proposed fibre interconnection. If an interconnect point cannot be arranged, the project will need to be redesigned.
3. As the project is also dependant on the Newtownmountkennedy project for a collocation facility, and if that project did not go ahead, the Kilcoole project costs would rise significantly.
4. It is recommended that the project budget be capped at the cost amount of €0.9m.
5. It is recommended that a new wireless site be found and a radio mast installed, as the proposed mast does not provide sufficient coverage. The applicant should provide a wireless access coverage map for the new site, and demonstrate that the mast complies with section 10.2 of the Guidelines.



5.11 DCMNR2005 – 319 NEWTOWNMOUNTKENNEDY

5.11.1 Applicant's summary description of the project

Summary Description of the Project

Metropolitan Area Network in the town of Newtownmountkennedy including the Co-Location Facility, interconnection with Eircom and the installation of a number of primary customer connections. The MAN includes for interconnection with the ESB telecom fibre wrap system. The project also includes for the facility of a wireless high site in the town. The approximate length of the Newtownmountkennedy MAN is 3.35kms.

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 4.5km fibre and duct network in Newtownmountkennedy.
- The deployment of a collocation centre.
- The project provides a fibre interconnect to the ESB Telecom backbone network.
- The project plans to use an ESB pylon as a radio mast.

Location

The project is located in the town of Newtownmountkennedy. However the collocation centre will also serve Kilcoole.

Coverage

The applicant indicates that the fibre network reaches a total of 112 potential users.

Social Aspects

The fibre network reaches two 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 €1,113,500 a 32% increase.

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 €217,483.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.

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 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. .
4. Please confirm that the wireless high site is owned by, or under the control of, Wicklow County Council.
5. Please indicate the route of the backhaul radio, the cost of which is included in page 5 of the business plan.
6. Please provide a propagation path profile for the proposed backhaul radio route.
7. Please confirm that there is no public or private mast space currently available or planned for rent in Newtownmountkennedy. If other mast space is available please provide details.
8. 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.
9. 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 potential demand for broadband services in the town is low, however there are a number of industrial and business parks in the town and the provision of competitive fibre access to them should encourage investment by ICT related industries.
2. The proposed use of an ESB pylon as a radio mast is unacceptable, the project should deploy its own mast.

Recommendations

1. It is recommended that the project should be supported
2. It is recommended that the project budget be capped at the cost amount of €0.9m
3. It is recommended that the project proceed only after establishing that the ESB Telecom will agree to support the proposed fibre interconnection. If an interconnect point cannot be arranged, the project will need to be redesigned.
4. It is recommended that a wireless site be found and a radio mast installed, as the proposed mast does not provide sufficient coverage. The applicant should provide a wireless access coverage map for the new site, and demonstrate that the mast complies with section 10.2 of the guidelines.





5.12 DCMNR2005 – 320 NEWTOWNMOUNTKENNEDY/KILCOOLE

5.12.1 Applicant's summary description of the project

None provided.

5.12.2 Evaluation Summary

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

Project Elements

Note. This proposal is an alternative to the two separate proposals for Kilcoole DCMNR2005-318 and Newtownmountkennedy DCMNR2005-219, and aims to achieve cost saving by elimination some overlap. The combined project generates savings of €58,408 or about 3.6% of the cost of the two separate projects.

- The deployment of a 7.9km fibre and duct network in Kilcoole and Newtownmountkennedy.
- The deployment of a collocation centre in Newtownmountkennedy.
- The development of a wireless sites in Kilcoole and Newtownmountkennedy.
- The installation of radio masts in Kilcoole and Newtownmountkennedy
- The project provides a fibre interconnect to the ESB Telecom backbone network.
- The project supports backhaul radio routes.

Location

The project provides services in the towns of Kilcoole and Newtownmountkennedy.

Coverage

The coverage is the same as that noted for projects DCMNR2005-318 and DCMNR2005-319.

Social Aspects

The coverage is the same as that noted for projects DCMNR2005-318 and DCMNR2005-319.

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 €434,967.

The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.

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.

Conclusions

1. There appears to be only minimal differences between this project and the separate project for Kilcoole and Newtownmountkennedy, DCMNR2005-318 and DCMNR2005-319. The combined project generates savings of €58,408 or about 3.6% of the cost of the two separate projects
2. The cost saving from combining the two projects is not significant and in any case will probably be achieved through a joint procurement exercise.

Recommendations

1. It is not recommended to pursue this joint proposal; Kilcoole and Newtownmountkennedy should be handled as separate projects.



5.13 DCMNR2005 – 326 CASTLEBLANEY

5.13.1 Applicant's summary description of the project

Summary Description of the Project

Castleblaney MAN project will focus on assisting in the regeneration of Castleblaney by putting in place a world class telecommunications infrastructure that will allow the provision of affordable broadband to the urban and rural populations of the Castleblaney.

Monaghan County Council will construct a 5.909kms MAN within Castleblaney and put in place an open access high site to target the business and residential populations of Castleblaney. This project will complement the existing North East Broadband Ring project by giving added telecommunications coverage for the whole North East region.

This project will target all the key businesses in the area, industrial parks, educational institutions, public services and libraries. The provision of the open access high sites will ensure that the residential population can also be reached. The High site also caters for wireless backhaul and wireless access to Lough Egish.

5.13.2 Evaluation Summary

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

Project Elements

- The deployment of a 5.9km duct and fibre network in Castleblaney Town.
- The development of a wireless site in the at the council water reservoir.
- The installation of a radio mast at the wireless site.
- The deployment of a collocation centre near the Eircom exchange.

Location

The network provides services in Castleblaney Town.

Coverage

The applicant indicates that the fibre network reaches a total of 323 potential users.

Social Aspects

The fibre network reaches four schools with a total of 80 pupils.

Financial Issues

The applicant uses non-standard civil works costs; applying standard figures the overall project cost rises to €1,568,307 an increase of 38%.

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 €217,483.



The applicant has indicated that the EBIDT of the project over a ten-year period is likely to be positive taking into account the requirement to repay 100% of the project costs over the lifetime of the assets. The average lifetime is estimated to be 30 years.

The Applicant did not estimate the operating cost of the network correctly and the figures provided are underestimates. And as a result the estimated project surplus after ten years is overestimated.

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 provide a propagation path profile for the proposed backhaul radio routes.
4. Regarding the table in appendix 8, (template below) please add the wireless sites at Kilit Mast and Dundalk.

Note: The fourth column should include details of the planned mast whose cost are included in this project. In the case of Castleblaney the relevant facility is the mast planned for the reservoir site. The table indicates that Castleblaney site will be charged at €2,000 per annum, please clarify who is being charged this amount, as this item should only include rents that would be paid by the County Council for the rent of a wireless site or mast space, in order to develop a backhaul link. Please contact Norcontel (01-6708888) if further clarification is needed.

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 clarify whether a backhaul route to Lough Egish is planned.
6. Please clarify if sufficient radio equipment has been planned.
7. Please clarify that ESB Telecom have a radio mast at the proposed interconnect point in Dundalk. Please include the mast rental charge in the above table.
8. Will direct access to Dundalk MAN be possible via the ESB Telecom interconnect point ?
9. Please confirm that the list of potential customers given in Appendix 4 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.
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

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



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 plans to use a radio site on Killkit, about 5km from Lough Egish to provide wireless access service in the area. However this distance is considered too far for wireless access, and only some of the taller buildings in Lough Egish will be reachable.

Recommendations

1. It is recommended that the project should be supported.
2. It is recommended that the project budget be capped at the cost amount of €1.3m.
3. It is recommended that a radio mast be installed near to Lough Egish to support wireless local access. It would be ideal if a site could be found that would allow direct line of sight to the mast in Castleblaney, bypassing the need for the site on Killkit. The applicant should provide wireless coverage maps of the Lough Egish site.
4. The Applicant should provide backhaul radio path propagation profiles for the route to Dundalk.
5. The DCMNR should consider the deployment of a radio mast on the Dundalk MAN rather than be dependant on the ESB Telecom mast for backhaul; this would increase the project cost by about €150,000. There are several advantages to this proposal: i) it would ensure the quality of the backhaul radio links to nearby towns. ii) The mast would support wireless access service in Dundalk, which would provide a useful additional service as the original MAN project offered fibre only and iii) The additional revenue provided by a full radio mast in Dundalk would help ensure the overall viability of the broadband programme

