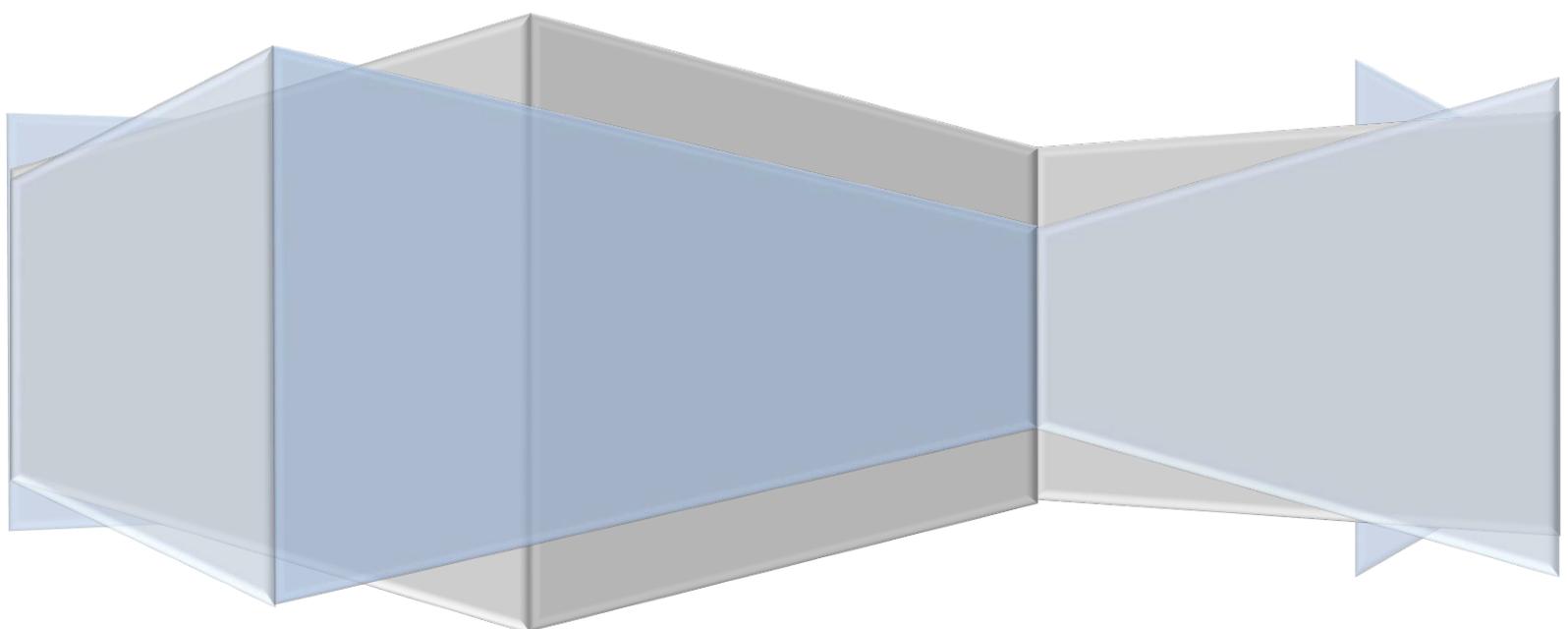


'Fibre at a Crossroads - Part 2'

THE NEED TO CONFIRM BT'S CAPITAL CONTRIBUTION IN NORTHERN IRELAND'S SUBSIDISED BROADBAND INFRASTRUCTURE

*Irish Central Border Area Network (ICBAN)
Ltd. - June 2017*

Prepared for ICBAN by The Bit Commons



CONTENTS

1.0 EXECUTIVE SUMMARY	3
2.0 INTRODUCTION	7
3.0 WHO IS PAYING FOR WHAT?	8
4.0 CABINETS AND STRUCTURES – COUNTING THE GREEN CABINETS	10
5.0 COVERAGE AND PREMISES PASSED	12
6.0 CAPITAL COSTS – WHO IS GAP FUNDING WHO?	16
7.0 CONCLUSIONS AND RECOMMENDATIONS	22
ANNEX 1: COUNTING CABINETS, BT COMMERCIAL AND SUBSIDISED USING THE 'CODELOOK' SERVICE	24
ANNEX 2: THE ROLE OF FIBRE EXTENSIONS	30

1.0 EXECUTIVE SUMMARY

BACKGROUND

1.1 The 'Fibre at the Crossroads – Part 1'¹ report was completed for ICBAN by The Bit Commons in June 2016. The report commended the efforts of Department for the Economy (DfE – formerly DETI) and BT in getting fibre based services so far and looked at the next steps to take fibre broadband infrastructure deeper into rural areas of Northern Ireland (NI).

1.2 ICBAN Ltd. is the cross-border group for the Central Border Region. On behalf of its member Councils, ICBAN has sought to help identify solutions to problems with internet connectivity across the largely rural Region. Since June 2016 ICBAN has been engaging with various stakeholders to help advance the solutions identified in the original report.

INTRODUCTION

1.3 Broadband is an important issue within NI, particularly for those without access to any service or a quality service. It is increasingly important for people's everyday lives. Rural dwellers and businesses are more likely to have service issues / lack of any service than their urban counterparts. Broadband connectivity is a key component for a competitive economy such as NI, however issues with service performance are regularly raised in complaints by citizens, businesses and their elected representatives.

THE FUNDING LANDSCAPE

1.4 The totality of broadband funding in NI to date includes;

- Government subsidies/funding - totalling approximately £60m and this has been paid to BT as service provider.
- Match funding - there is to be an additional £40m² in matched funding to be delivered alongside the subsidies.
- Commercial investments - separately BT has invested in its own commercial infrastructure. BT claims that it has spent £2.5bn in commercial investments across the UK and if this is the case this would equate to c£75m³ in NI in commercial structures and 'green cabinets'.

1.5 The arrangements and mechanisms for funding of this costly infrastructure are very complex. A lack of clarity and transparency around the amounts involved have given rise to confusion about who has funded what and whether funds have been clearly used for the purposes intended. It would therefore seem logical to ensure that such

¹ <http://www.icban.com/?pageid=715>

² Intervention area of 425k premises - £30m for NIBIP and estimated £10m to match BDUK work.

Alternatively multiply premises by £100 per premise pass (Ofcom fair bet analysis – see later) by the premises passed. ³ NI is c3% of Openreach's system size – share of total UK premises.

investment pledges are being honoured, that value for money is provided for state subsidies, that the details involved are transparent, and that where any issues are identified that corrections should be made.

'FIBRE AT A CROSSROADS – PART 1' REPORT, JUNE 2016

1.6 The 'Fibre at a Crossroads' report had recommended that a general 'true up'³ be completed on the subsidies made by DfE and the matched funding due from BT. It was argued that lower than portrayed costs and the higher take-up of subscribers would mean that if the state aid measure of gap funding⁵ was robustly applied, that most of the early subsidies could be recovered, particularly as the BT broadband products would be subject to some price regulation based on BT's level of investment.

1.7 ICBAN believes that the recovery of such funds could as a result enable additional investments to push services further into rural areas of NI.

TRANSPARENCY AND ACCOUNTABILITY QUESTIONS

1.8 The answers to questions posed by MLAs in the Northern Ireland Assembly to the Minister for the Economy confirm that £60m of subsidies have been paid to BT. The Minister however noted that the Department have no direct knowledge of BT's own investment.⁶ Ofcom Northern Ireland have confirmed to the author of this report that they have no detailed knowledge of BT's commercial investment or matched funding in next generation access services in NI.

1.9 These questions are being played out in Britain, where Ofcom as Regulator has decided to force greater separation between BT and its local network arm Openreach. This is in part response to the concerns about BT's unwillingness to invest sufficiently in its network. However, Ofcom are currently avoiding an examination of the subsidy payments even though the EU state aid measures state they have a role in dealing with concerns of local bodies⁴.

1.10 It would therefore appear that the responsible authorities, DfE as funding department, and OFCOM as the regulator, aren't able to confirm the investments claimed and made by BT.

³ Definition of 'true-up' -audit or reconciliation to verify BT's capital contribution – circa £70-£100 per premise passed to be consistent with Ofcom analysis in Annex 8 of their WLA consultation – March 2017. ⁵ Gap Funding as per the state aid measure is the gap between the commercial norm used by BT in its cost modelling and any additional funds needed to support rollout in more rural areas. ⁶ AQW 9199/16-21 answered on 18-1-2017

⁴ State aid measure SA33671 – clauses 28,29,30.

KEY FINDINGS OF THIS REPORT

1.11 This lack of transparency has thus led to this next stage report to 'Fibre at a Crossroads', and which essentially includes a 'true up' of its own. The key findings from the report are:

- BT may owe a capital contribution of between £20m-£43.5m to the Northern Ireland economy, if we are to accept the basis of Ofcom's 'fair bet analysis'⁵ in the current market review.
- The £43.5m we believe may be due to Northern Ireland, is less than 11% of the Capital Deferral now in BT's accounts and owing to UK institutions.

This report cannot say definitively this is the case but presents the available evidence which if acted upon could release these funds to the NI economy.

1.12 The following report takes the reader through 13 tables on how the DfE took on a greater role than anticipated in upgrading BT's infrastructure in NI. The source is BT Wholesale Systems (using Codelook) and this is explained further in Section 4.1. The methodology for compiling the tables is outlined in Annex 1.

CONCLUSIONS

1.13 From these 13 tables the following conclusions are made:

- 1.) BT commercial investment covers less than 50% of premises in NI and this is reflected in the recent assessment by Ofcom of the 'fair bet', where BT commercial investment was shown not to be £2.5bn but £1.5bn.
- 2.) A substantial part of £60m NI subsidies would appear to have been diverted to cover what would be normally considered 'commercial' by BT (i.e. populated urban areas).
- 3.) BT capital contribution if confirmed, to the subsidised build at some c£30-£35 a premise passed is just one third of the amount used by Ofcom in its 'fair bet' analysis in the current WLA consultation. Unchecked, it appears Ofcom is supporting broadband prices where it assumes BT has invested a £100 per premise passed. In Northern Ireland this is not the case. It suggests that the gap funding principle has not been applied and BT has used its power in the market to invest less than the underlying commercial opportunity permitted.
- 4.) Fibre extensions through 'Fibre on Demand'⁶ have been withheld in NI from what is to all intents and purposes highly subsidised infrastructure. This is however offered as standard in other devolved administrations such as Wales. This aspect is discussed in Annex 2.

⁵ See Ofcom Fair Bet analysis – Annex 8 -

https://www.ofcom.org.uk/__data/assets/pdf_file/0035/99638/Annexes1-19.pdf Page 30

⁶ Fibre on demand is a BT product designed to extend fibre connections to premises beyond the operation reach of the cabinet, and is part of BT's commitment to deliver future-proof, affordable solutions.

1.14 It is timely that the release of this paper coincides with the Wholesale Local Access Review, through which Ofcom will be reviewing prices for Broadband in 2017⁷.

RECOMMENDATIONS

1.15 This report is thus recommending that the appropriate NI institutions, Northern Ireland Audit Office, and Public Accounts Committee of NI Assembly when reconvened, in conjunction with Ofcom's WLA consultation,⁸ conduct a comprehensive audit of BT's commercial investment in Northern Ireland and its contribution to the subsidised programme. It would be in the public interest to have such audits and evidence, providing reassurances that funds contributed have been used for the purposes intended.

1.16 The findings reinforce the 'Fibre at a Crossroads – Part 1' conclusions that the regulatory regime should not by virtue of its independent status ignore any potential abuse of power. We note that Ofcom's appointed agents for NGA Cost modelling have already done much of the work needed and this is evidenced in the BDUK Adjustment spreadsheets available in the documentation supporting the consultation.⁹ The regulator should therefore use the WLA price-setting consultation process for Broadband in 2018 to verify BT's capital contribution and to also use its 'fair bet' analysis and extend it to the subsidy payments and an analysis of BT's required capital contribution. This is consistent with the desire to separate Openreach from BT, so that Openreach investment can be more clearly reported.

1.17 The capital issue raised here is in addition to the need to re-allocate some of the now £446m BT Capital Deferral owed back to government. Westminster Parliament's Environment Food and Rural Affairs (EFRA) Select Committee could apply itself to determining the location and status of BT's capital and work to secure the re-farming of BDUK funds recovered from subsidies used in urban areas, to finance rural areas still needing service investments.

1.18 One additional consequence of that assessment is likely to include that 'Fibre on Demand' extension products should be available to order at every NI exchange, such that BT can respond to reasonable requests for direct fibre access. See Annex 2.

1.19 Consistent, complete and accessible public reporting of the related data and use of public funds would be welcomed in future.

1.20 Information on commercial roll-out plans should also be made available, to negate any potential of public funds being used in areas which could instead be considered commercially advantageous for a network provider to invest in.

⁷ Ofcom's Wholesale Local Access review sets wholesale prices for Broadband access.

⁸ Ofcom WLA consultation – March 2017 – determines broadband pricing for next 3 years -2018-2021 where subsidies and BT's capital can be reconciled.

⁹ <https://www.ofcom.org.uk/consultations-and-statements/category-1/wholesale-local-access-market-review> WLA models available in the supporting documentation. See the BDUK adjustment worksheets.

2.0 INTRODUCTION

- 2.1 The 'Fibre at a Crossroads – Part 1' report focused on the three NI Council areas within the area defined by ICBAN as the Central Border Region (Armagh City Banbridge & Craigavon, Fermanagh & Omagh, and Mid Ulster). The purpose of that report was to examine the depth of the remaining service problem, not who had paid for what. Therefore the report did not attempt to check on the top line numbers for all of NI, and the volume of premises paid for commercially.
- 2.2 This latest report builds on the original publication and examines the uses of the funding involved in more detail. It essentially provides a 'true-up' of its own and seeks to examine further the questions being raised in public. The report uses data in the public domain, and conclusions are therefore based on that data. Pertinent questions are raised but we leave it to statutory processes to arrive at the answers.
- 2.3 The funding for broadband in the UK has generated a number of audits and comments from public authorities and has been the subject of Parliamentary scrutiny and debates. These have included four Parliamentary Select Committee inquiries, two formal evidence sessions convened through both the Public Accounts Committee and also the Environment Food and Rural Affairs Committee, as well as a year-long investigation by the Culture Media and Sport Select Committee. The National Audit Office has completed two related audit reports, Audit Scotland has completed two reports and Audit Wales has also completed a report.
- 2.4 There has been much debate on how the funding has been managed and what results have been delivered through network provider BT, including questions raised within the Northern Ireland Assembly and District Councils across NI.
- 2.5 These public fora have cited frustrations with the lack of transparency and opaqueness involved and there are conflicting reports on the progress of the broadband programme and its results, on the uses of the funds provided, and the scope of the differing investments involved - public, matched funding and commercial.
- 2.6 This report raises a number of relevant questions in the use of public funds into what is essentially an asset wholly owned by a commercial entity.
- 2.7 The structure of this report includes:
- An examination of the infrastructure involved, including what has been subsidised and not subsidised (in other words, commercially invested)
 - An analysis on how public funds have been used alongside the commercial investments
 - An attempt to understand the scale and scope of the commercial capital investments
 - Finally the Key Findings are set out, along with some Conclusions, and Recommendations to be taken up as a result.

3.0 WHO IS PAYING FOR WHAT?

3.1 The ‘Fibre at a Crossroads – Part 1’ report included the following table, setting out an overview of the capital infrastructure involved, and based on information in the public domain (Table 1).

Table 1: Estimated quantities and line speeds based on public domain sources

Sources: BT and DfE					Source: Think Broadband		
Areas	Lines	Exchanges	Subsidised Cabinets	BT Commercial Cabinets	Coverage >24mbps	FTTP/FTT H	Coverage <10mbps
NI	800,000	191	1,750	1,250	79.90%	0.12%	13.50%
Fermanagh and Omagh	42,111	24	131	33	57.60%	0	31.00%
Armagh City Banbridge & Craigavon	77,520	18	194	135	66.60%	0.50%	22.10%
Mid Ulster	52,726	23	147	39	75.40%	0	30.00%

3.2 BT have invested in 1,250 of their own commercial cabinets, of which the table above shows there to have been a total of 207 in the three Council areas being studied.

3.3 Table 2 below presents a breakdown of the public subsidies invested in NI. These show that subsidised areas when combined would amount to over 350K premises passed (361K). We accepted the broad scope based on BT claims of funding 66% of premises, that BT’s commercial programme would therefore pay for some 500k premises passed. This assertion is consistent with the BT announced plan to invest in 60-66% of UK premises and that subsidy would be needed for the remainder.

Table 2: Summary of DfE (DETI) subsidies for Broadband from public press releases

	Date	Public Funding £s	BT Investment £s	BT Capex £s	Cabinets	Premises Passed	Public funding per premise passed	Indicative subsidy per cabinet
DETI 2009	2011	18,000,000	30,000,000	10,000,000	1,178	260,000	£79	£15,280
DARD	2011	1,000,000	2,000,000		90	18,000	£56	£11,111
NIBIP	2014	23,500,000	4,200,000		500	45,000	£429	£38,600
SRP2	2015	17,000,000	3,000,000		400	38,000	£376	£35,750
TOTAL		59,500,000	39,200,000	10,000,000	2,168	361,000		

3.4 In checking the three Council areas it was striking how much territory was actually being subsidised and in the initial report it was commented that towns such as Omagh, Cookstown, Dungannon and Enniskillen would pass the tests within BT’s commercial

model - meaning these towns could have been invested in commercially by BT, without needing government subsidies.

3.5 It was beyond the scope of the initial report to analyse BT's commercial rollout. In November 2016 DfE issued a consultation process¹⁰ which included 57 pages of NI post codes where Broadband services were not regarded as superfast. These included postcodes in areas where BT had made commercial investments. These 57 pages of post codes suggest that at least another 70-80k of premises need some upgrades. The expectation was, and the requirement supporting this, was that BT would provision a fibre on demand product to those premises which were too far from a cabinet, or in part of a BT exchange bypassed by BT's commercial programme. The consultation suggested DfE were providing another round of funding for areas already declared passed.

3.6 This latest consultation and the lack of investment evidence merits a greater verification of the infrastructure put in place and the premises served. This also raises the question: why after approximately £60 million of subsidised investment in NI, are there still many areas, communities and businesses across NI without adequate coverage?

¹⁰ <https://www.economy-ni.gov.uk/consultations/northern-ireland-superfast-rollout-programme-publicclarification-intervention-area>

4.0 CABINETS AND STRUCTURES – COUNTING THE GREEN CABINETS

4.1 There is a challenge in finding the relevant information, where the detail on investments is not available because of commercial confidentiality clauses agreed between funders and providers. Instead it has to be pieced together. All the following data has been sourced online from BT Wholesale systems (December 2016), ¹¹whose data is sold by BT to various service providers for uses such as number lookup. This does raise the question, that if the following can be extracted from the internet, why can the information not be published officially?

4.2 BT have a total of 191¹⁵ exchanges in NI and there are almost 4,000 structures/cabinets. For ease of use the number of exchanges and street cabinets are presented by County.

Table 3: BT Exchanges and Structures, including Cabinets, by NI County

	BT Exchanges	Structures/ Cabinets
Co. Armagh	18	421
Co. Down	45	819
Co. Tyrone	30	609
Co. Fermanagh	16	162
Co. Antrim	58	1566
Co. Londonderry	24	380
Total	191	3957

4.3 The next step looks at what has been done and what remains to be done, what is subsidised and what is not subsidised (i.e. has been commercially invested).

¹¹ <http://www.telecom-tariffs.co.uk/codelook.htm?xid=155572&cabinets=11345> ¹⁵
191 plus two more in Belfast used as switching centres.

Table 4: Cabinets and Structures - who is doing what and what needs to be done?

County	Structures	Structures Subsidised Done and To Be Done					Total DfE/DARD	BT Commercial
		NBP+ DARD ¹²	NIBIP+ SRP2 ¹³¹⁴	FTTPod ¹⁸	SRP2 to do ¹⁵	No Plan ¹⁶		
Co. Armagh	421	136	87	7	60	0	290	131
Co. Down	819	316	134	22	165	10	647	172
Co. Tyrone	609	176	121	5	67	176	545	64
Co. Fermanagh	162	94	35	0	27	0	156	6
Co. Antrim	1566	347	169	20	180	184	900	666
Co. Londonderry	380	182	63	0	17	8	270	110
Total	3957	1251	609	54	516	378	2808	1149

4.4 Overall this table illustrates the level and intensity of subsidised activity. The total BT Commercial cabinets count is slightly lower than what was originally referenced in the ‘Fibre at a Crossroads – Part 1’ report, as we originally relied on information derived from BT slide material. This has been the challenge with trying to access and piece together the most relevant information, often not easily available in the public domain. There are differing sources of data, conflicting reports and numbers and gaps and questions arising as a result. Consistent, complete and accessible public reporting of the data would be welcomed as a result.

¹² NBP- DARD– (National Broadband Plan and Dep of Agriculture, now DAERA) Phase 1 DfE and DAERA funded

¹³ NIBIP –SRP2 Northern Ireland Broadband Improvement Plan (SRP2-Superfast Rollout Programme)

¹⁴ FTTPod - Fibre to the Premise on demand – instances, but no reference to the number of premises impacted

¹⁵ SRP2 to do – Superfast Rollout Programme

¹⁶ NO Plan - against a data base entry it says no fibre available and there is no record of the premises impacted

5.0 COVERAGE AND PREMISES PASSED

5.1 In this section we seek to understand more on where the public funds are being used, and how the gap funding principle is being applied. A related question arising is, is there a case that the funds might be used to replace what could and should be commercially funded instead?

5.2 The term 'Premises passed' counts the numbers of premises which can attach to a cabinet for a broadband connection. It does not mean every premise actually receives a benefit. A connected premise needs to be within 1200m of a cabinet to benefit, as signals then attenuate or weaken and so there is no improvement in access speed. This is a contentious issue dealt with in the 'Fibre at a Crossroads – Part 1' report.

UNDERSTANDING BT COMMERCIAL INVESTMENTS

5.3 The aim of the government funded programmes is to deliver high speed broadband into areas that are not commercially or economically viable to target. This would include rural or more remote areas across NI, which by virtue of lesser premises and potential revenues will not be seen as lucrative. Equally so it would seem to be a waste of public funding to invest in areas which are deemed to be commercially attractive. However there is a lack of clarity on the basis of commercial plans and how definitions of commercial viability may have been arrived at. In future it would be welcomed if information on commercial roll-out plans was made available, to negate any potential of using future public funds in areas which could instead be commercially advantageous for a network provider.

Table 5: Estimates for the BT Commercial Programme

	BT Commercial structures	Premises passed	Average Premise passed per structure
Co. Armagh	131	36,885	282
Co. Down	172	56,202	327
Co. Tyrone	69	20,092	291
Co. Fermanagh	10	1707	170
Co. Antrim	666	222,402	334
Co. Londonderry	110	34,499	314
Total	1158	371,737	321 avr.

- 5.4 From the table above the first surprise in this analysis emerges. The total number of properties passed by BT commercial is only approximately 370k out of a total of c800k premises in NI. This amounts to only 46% of the total premises and not the 500,000 premises or 60%+ figure that features in BT’s public announcements.
- 5.5 We can see from Table 5 that BT can commercially fund cabinets serving less than 200 premises (e.g. 170 premises passed in Co. Fermanagh). This is not uncommon in the data, and states that the need for subsidy was less than originally thought, i.e. if BT regard a cabinet serving 170 premises as commercially viable, then there is no need for a government subsidy for cabinets serving more than BT’s commercial threshold. However, as indicated in the following sections, subsidies have continued to be made available in what are suburban and commercially viable areas.
- 5.6 Ofcom is now proposing prices on the assumption BT has invested uniformly the same amounts in subsidised projects as its commercial projects. This raises the question, how can BT be called to account if it has failed to invest what was required in the state aid measure?

UNDERSTANDING THE SUBSIDISED INVESTMENTS

- 5.7 The next table looks at the 1,251 structures funded by DfE (DETI) and DAERA (DARD) in 2011-12. The total subsidies made were £19m. It is worth noting that during 2010-12 Northern Ireland led the way in the UK and were looked on with envy as £19m was used to get BT to do more than it was willing to do.
- 5.8 Audits, by the National Audit Office (England), Audit Wales and Audit Scotland have since determined that costs have actually been lower and take-up greater than what was expected. With the passage of time we now understand more and thus lessons need to be drawn and more corrections made. However, BT’s capital contribution is yet to be audited.

Table 6: Initial Subsidised Structures and Premises passed

	NBP + DARD funded structures	Premises Passed	Average Premises Passed
Co. Armagh	136	38,208	281
Co. Down	316	94,718	300
Co. Tyrone	176	50,615	288
Co. Fermanagh	94	24,533	261
Co. Antrim	347	100,114	289
Co. Londonderry	182	48,919	269
Total	1251	357,107	281 avr. (1688/6)

5.9 The second major surprise emerges. The average subsidised cabinet (281 premises) is only forty premises fewer than the average commercial cabinets (321 from Table 5). The average subsidised cabinet level is however well above what might be considered the commercial threshold for investment by BT. For example, 170 premises in Co. Fermanagh (from Table 5). However, there are commercially funded cabinets in Belfast with even smaller numbers of premises passed (see Table 13).

5.10 The data shows whole exchange areas where subsidies are paid, areas which on the face of it meet the commercial investment requirements for BT to invest alone and without subsidies being needed. This suggests that this can now be rectified and that any monies reclaimed from such can be reinvested in areas where there is no or very poor broadband service. This is explored in more detail in Table 11 later in the document.

5.11 The £19m of headline subsidies therefore amounts to c£15k for each cabinet and fibre path.¹⁷

5.12 While BT is keen to maintain the idea of a 'fair bet' with Ofcom, the very same notion can be applied to subsidies. If BT is taking subsidies for revenue earning assets, then the upsides associated with those subsidies should be available in turn to the taxpayer. This is how gap funding is to work. In this case if the subsidies cannot be recovered, then at the very minimum Ofcom must be encouraged to reduce retail prices. Based on Ofcom 'fair bet' analysis (footnote 8) this would appear to be set at £100 per premise passed of capital.

5.13 Table 7 shows the more recent work funded by Broadband UK (BDUK). There are two contracts; NIBIP with £23.5m of public funding and SRP2 (Superfast Rollout Programme) with public funding of £17m. The second contract is still in progress.

Table 7: Structures and Premises for NIBIP and SRP2 Project – November 2016

	NIBIP + SRP2 structures	Premises passed	Average Premises passed
Co. Armagh	87	8526	98
Co. Down	134	13781	103
Co. Tyrone	121	15618	129
Co. Fermanagh	35	4436	127
Co. Antrim	169	19642	116
Co. Londonderry	63	6323	100
Total	609	68326	112

¹⁷ Initial Deti subsidised project was £19m for 1268 cabinets – or £15k each see press release.

5.14 The subsidies are much higher here but there are clawback measures built in. However, the clawback measures do not extend to securing proof of the matched funding pledged by BT and do not protect against initial inflated reference prices¹⁸.

Some savings and clawback (£3m) have already been announced for Northern Ireland on NIBIP but this is only based on the initial £129m of what is now a £446m BT capital deferral for the UK as a whole.

5.15 It is worth noting that while these are considered difficult to install, many of the cabinets are in locations adjacent to the existing rollout, so the fibre spines connecting the cabinets will only be a short distance away. This will make the incremental costs lower than might have been expected.

5.16 The actual costs, BT capital and clawback, are all to be played out on these contracts.

¹⁸ See NAO Broadband report 2013, and proceedings of the Public Accounts Committee on Broadband – summer 2013.

6.0 CAPITAL COSTS – WHO IS GAP FUNDING WHO?

6.1 The subject of BT's actual capital investment is complex as BT treats its actual breakdown as commercially confidential while at the same time using it in public relations to promote coverage achievements. Based on the previous sections we attempt to estimate BT's actual investment versus the publicised promises by BT on its commercial funding and matched funding investment plans.

6.2 The basic inputs are: BT promises to invest £2.5bn in its commercial rollout of broadband across UK and £1bn more in matched funding for rural areas; the £2.5bn ought to translate into c£75m in Northern Ireland.

6.3 During various submissions to the CMS Select Committee inquiry into Broadband¹⁹, and more recently the Ofcom WLA review, BT's promised £2.5bn commercial rollout is now accepted as being £1.5bn²⁴. Of the original £2.5bn, the £1bn of that intended for rural areas now equates to some £358m²⁰, or should do if these sums have in fact been paid. Applying the 3% rule suggests that we should see c.£45m of capital prorata in Northern Ireland for the commercial rollout.

6.4 BT's NI match funding in the PR statements note a figure of £40m. However, the BT evidence to the Culture Media and Sport (CMS) Select Committee reduces this to £10m capital. BT also submit that phase 1 BDUK costs per cabinet and fibre path is £26k on average and BT also stated previously that costs in NI were 14% lower. Unit costs for BT's commercial investment will be lower as the cabinets are closer to their existing exchanges.

6.5 Some of the excess has been acknowledged in the form of a £446m²¹ capital deferral now in BT accounts owing to UK Government. This is likely to grow as BT acknowledges

¹⁹ <http://www.parliament.uk/business/committees/committees-a-z/commons-select/culture-media-and-sport-committee/inquiries/parliament-2015/establishing-world-class-connectivity-throughout-the-uk-15-16/>²⁴

Ofcom annex 8 assessment of fair bet – see earlier footnote.

²⁰ NAO report -July 2013.

²¹ Accumulated to q4 2016-17 – BT plc. accounts – notes on capital expenditure.

the capital contribution owed. As referenced in 5.13 some £3m has been acknowledged as savings and gainshare for the NIBIP project in Northern Ireland but this is a function of £129m of the £446m capital deferral.

6.6 Some of the rectification needed can come from DfE negotiating a proportion of this £446m to secure the appropriate level of BT investment in NI and any reallocation of those funds being repointed from urban areas to where the money was originally intended for, rural areas.

6.7 The following tables suggests that the gap in BT capital contribution to Northern Ireland could be between £20m and £43.5m.

Table 8: Estimated System Size and Estimate of Actual BT Capital

Basics NI	Estimated Premises	Estimated Cabinets	Estimated Broadband Subscribers	Expected BT Capex
NI Premises (A)	800,000			£56m- £79.5m ²²
BT Commercial capital (B)	370,270	1,149	85,162	£26m ²³
BT contribution to Subsidised work (C)	425,000	1,800	140,250	£10m ²⁴
Estimated BT actual Investment (B+C)			225,412²⁵	£36m
Estimated Gap in BT's capital contribution (A-(B+C))				£20m-£43.5m

6.8 The £10m capital investment in Northern Ireland referred to by BT in its CMS submission is a fraction of the £30m promised for that initial DETI work package.

6.9 At £10m this shows BT's match at some £35 a premise passed rather the c£100 expected and used by Ofcom in their fair bet analysis. BT's operational costs are not relevant to the calculation. A range has been used here to allow for Ofcom extending their analysis to include the full BT Commercial programme and by implication the average would drop to £70 per premise passed as the initial programme included development costs and the costs of establishing handover points (Footnote 27).

²² £70-£100 per premise passed times the number of premises, £100 is used by Ofcom in the March 2017 WLA consultation.

²³ =1,149 cabinets x £23,000 for each cabinet. (BT stated in 2013 Public Accounts Committee oral evidence – BT NI costs were 14% less than UK Mainland.

²⁴ As per BT evidence to CMS Select Committee inquiry in Spring 2016.

²⁵ The 225,412 premises is an estimate of the current paying subscriber base for fibre based services. ³¹ WLA consultation – Annex 8 assessment.

6.10 Table 9 shows what the BT investment should be to align with Ofcom’s proposed cost recovery for 2018-2021. Ofcom in assessing the first £1bn of BT commercial show a willingness by BT to invest a £100 per premise passed for Fibre to the Cabinet (FTTC). They calculate that BT can achieve a 15% return in capital investment at the prices being proposed against the investment cost³¹.

6.11 Table 9 shows an estimate of what could be missing capital. This is not a definitive claim but one based on the data in the public domain. BT and DfE do not publish BT’s capital contribution. This analysis suggests an audit is needed to confirm the actual numbers.

Table 9: Estimated BT Capital gap for NI to be consistent with Ofcom pricing proposals, comparing actual estimated capital

	NI Premises	Ofcom WLA pricing assumed investment level per premise	BT capital Investment needed to support proposed prices	Estimated actual	Estimated Gap in BT Investment in NI
BT Commercial Premises passed	370,000	£100	£37m	£26m ³²	£11m
Subsidied Premises passed	425,000	£100	£42.5m	£10m ²⁶	£32.5m
Total	795,000	£100	£79.5m	£36m	£43.5m

6.12 Table 9 attempts to show that at a very minimum the BT capital contribution should be confirmed. The £43.5m estimate is only 10.4% of the total capital deferral set aside in BT’s accounts to pay back to government.

6.13 Responses to a previous OFCOM consultation from Vodafone, Scottish Futures Trust²⁷ and others have raised concerns about the level of BT’s capital participation and have requested BT contribution be independently confirmed.

6.14 The following tables show more clearly who (Subsidy or BT) paid for what. It reinforces the view that BT’s investment needs to be verified. It is in this context that Annex 2 makes the case for a direct fibre service at a reasonable request.

6.15 Table 10 shows how much the public sector has driven upgrades in BT’s NI network. The terms ‘BT led’ or ‘Subsidy led’ denote the greater role in the upgrade (in terms of quantities of cabinets paid per exchange).

²⁶ BT’s written evidence to the CMS Select inquiry.

²⁷ <https://www.ofcom.org.uk/consultations-and-statements/category-3/wholesale-local-access-marketreview-fibre-cost-modelling>

Table 10: BT and Public Subsidy by Northern Ireland Exchange

Northern ²⁸ Ireland	No. of BT Exchanges	Exchanges with BT Led investment	Exchanges with Subsidy led investment	Exchanges with a mix of BT and public subsidy	Exchanges where work is yet to begin
Co. Antrim (includes Belfast)	58	3	22	31	0
Co. Down	45	1	19	25	0
Co. Londonderry	24	1	13	11	0
Co. Armagh	18	0	4	13	1
Co. Tyrone	30	0	25	5	0
Co. Fermanagh	16	0	16	0	0
Total	191	5	99	85	1

6.16 The amount of subsidy used in a populated area such as Greater Belfast is surprising. Of the 58 Co. Antrim exchanges, some 22 were heavily dependent on subsidy. This is expanded upon in the next two tables.

6.17 Table 11 shows exchanges whose upgrades were enabled by subsidy but whose size would suggest these would more than meet BT’s commercial criteria. These are exchanges with more than 10 subsidised cabinets. This is a sample of the data. **Table 11: Subsidy led Investment in Large Exchanges**

County	BT exchange	No of subsidised cabinets, no BT led invest visible	Total No of premises passed	Average premise passed per subsidised cabinet
1 Antrim	Ballycastle	13	4086	314
2 Antrim	Dervock	10	1989	199
3 Antrim	Kells	11	2482	226
4 Antrim	Portrush	17	5012	295
5 Down	Ardglass	11	2455	223
6 Down	Bessbrook	12	3471	289
7 Down	Castlewellan	11	3077	280
8 Down	Downpatrick	25	6142	246
9 Down	Dromara	11	2470	225
10 Down	Killyleagh	10	2012	201

²⁸ ,200 commercial cabinets x £23,000 a cabinet.

11 Down	Warrenpoint	16	4401	275
12 Londonderry	Maghera	20	4855	243
13 Londonderry	Magherafelt	22	5193	236
15 Tyrone	Castledearg	17	4017	236
16 Tyrone	Cookstown	35	7371	211
17 Tyrone	Donaghmore	12	2678	223
18 Fermanagh	Enniskillen	35	8455	242
19 Fermanagh	Lisnaskea	11	3042	277

6.18 These 19 larger exchanges account for some 299 cabinets, a large proportion of the 1,750 total subsidised cabinets. The table is to illustrate the depth of subsidy available, in areas which could have been considered as models for BT’s commercial investment. This can be rectified if an overall BT capital contribution is confirmed.

6.19 Furthermore, it is equally important that NI institutions demand that fibre access extensions are made available from exchanges to business parks in these heavily subsidised exchange areas. The status of fibre extensions is dealt with in Annex 2.

6.20 The case is strengthened when we look at how subsidy was used to in-fill exchanges where BT had made some commercial investment. Note, it can be shown BT had commercially invested in cabinets serving fewer than 150 premises passed.

6.21 Table 12 shows the level of subsidised in-fill in exchanges where BT started to invest and then relied on subsidy for completion. Table 12 looks at the use of in-fill where the scale of the premises passed exceed 200 on average. This table accounts for a further 770 cabinets (195k premises passed) of the 1,750 total subsidised cabinets. In these exchanges BT invested in 592 cabinets using its own funds.

6.22 From the table we can question why BT’s commercial footprint is lower than expected, and if the subsidy could have been used to replace the capital referenced in BT’s press releases. For instance in Ahoghill, BT paid for two cabinets passing some 549 homes while subsidy is used to pay for 6 cabinets passing some 1,632 premises. It can be seen that subsidies were being paid for urban cabinets not too dissimilar in size to BT’s commercial rollout.

Table 12 – BT Using Subsidy to In-fill Cabinets of a Commercial Size

Area	BT Exchange	BT funded cabinets	Premises passed by BT Cabinets	Subsidised Cabinets	Premises passed by Subsidised Cabinets	Average premises passed by BT funded cabinet	Average premises passed by Subsidised cabinet
Antrim	Ahoghill	2	549	6	1632	275	272

Antrim	Antrim	32	8618	17	3488	269	205
Antrim	Ballyclaire	13	4561	18	4268	351	237
Antrim	Ballymoney	14	4338	16	3310	310	207
Antrim	Belfast City	70	18878	17	5419	270	319
Antrim	Bushmills	2	838	8	2218	419	277
Antrim	Carrickfergus	20	6436	25	6542	322	262
Antrim	Cregagh	37	11049	20	4879	299	244
Antrim	Dundonald	22	8146	8	1831	370	229
Antrim	Glengormley	18	5891	33	8575	327	260
Antrim	Larne	12	3246	21	6710	271	320
Antrim	Malone	32	9911	5	1359	310	272
Antrim	Ormeau	19	7444	9	2865	392	318
Antrim	Randalstown	3	832	7	2708	277	387
Antrim	Stormont	6	1408	4	1494	235	374
Antrim	Whiteabbey	24	8374	26	8463	349	326
Antrim	Whitehead	2	620	11	2899	310	264
Down	Ballygowan	1	190	6	1562	190	260
Down	Ballynahinch	4	1076	15	4070	269	324
Down	Crossmaglen	1	341	13	2771	341	213
Down	Donaghadee	9	3050	4	1097	338	274
Down	Dromore	2	571	17	3775	286	222
Down	Forkhill	1	45	11	2312	45	210
Down	Hillsborough	2	398	17	2665	199	157
Down	Kilkeel	1	257	21	5125	257	244
Down	Newcastle	1	291	14	4833	291	345
Down	Newry	27	7749	26	6363	287	245
Down	Newtownards	1	63	49	14506	63	296
Down	Portavogie	2	269	6	1997	135	332
Down	Rostrevor	1	88	7	1739	88	248
Down	Saintfield	1	105	11	2586	105	235
Londonderry	Castledawson	2	611	5	1418	306	284
Londonderry	Coleraine	24	7276	29	6691	303	231
Londonderry	Limavady	15	5014	21	4216	334	201
Londonderry	Portstewart	4	1277	11	3955	319	360

Armagh ²⁹	Gilford	2	496	9	1574	248	175
Armagh	Keady	1	123	17	3902	123	230
Armagh	Lurgan	35	11603	26	7847	332	302
Armagh	Moira	1	299	16	7847	299	259
Armagh	Portadown	35	9082	31	6974	259	255
Armagh	Tandragee	1	338	10	2952	338	295
Armagh	Waringstown	2	437	13	2682	219	206
Armagh	Banbridge	17	6050	19	4361	356	230
Tyrone	Coalisland	6	1841	16	3869	307	242
Tyrone	Dungannon	18	5011	12	3114	278	260
Tyrone	Omagh	21	6520	23	5903	310	256
Tyrone	Sion Mills	3	1039	3	840	346	280
Tyrone	Strabane	21	6072	8	2625	289	328
Fermanagh	Enniskillen	2	367	33	8088	183	245

6.23 The number of exchanges in NI where BT invested in only 1 cabinet is unique to NI (e.g. Moira, Keady etc.) when compared with other projects in the UK.

6.24 Finally we note that BT found it commercially viable to invest in the following cabinets of less than 200 premises each, suggesting the gap funding needed could be very small indeed. This is a sample from Belfast City Exchange.

Table 13: Belfast City exchange, commercial investment in small cabinets

County	Exchange	Cabinet Number	Premises passed	BT Build
Antrim	Belfast City	p1	61	7a 2011
Antrim	Belfast City	p2	21	7a 2011
Antrim	Belfast City	p26	135	7a 2011
Antrim	Belfast City	p31	74	7a 2011
Antrim	Belfast City	p33	83	7a 2011
Antrim	Belfast City	p39	26	7a 2011
Antrim	Belfast City	p44	192	7a 2011
Antrim	Belfast City	p49	63	7a 2011

²⁹ The figures include detail of exchanges in Banbridge also. This is a local issue relating to the citing of exchange locations.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Understanding these numbers creates an opportunity for NI institutions and stakeholders to reassess Broadband Policy.

7.2 The improvement in service from 2010-2017 must be acknowledged and commended. However, lessons learned and the advent of Ofcom's Wholesale Local Access price review in 2017 means much can be done if there is proper transparency.

7.3 The principle findings identified in this report are:

- BT may owe a capital contribution of between £20m-£43.5m to the Northern Ireland economy, if we are to accept the basis of Ofcom's 'fair bet analysis' in the current market review
- The £43.5m we believe may be owed to Northern Ireland is less than 11% of the Capital Deferral now in BT's accounts and owing to UK institutions.

This report cannot say definitively this is the case but presents the available evidence, which if acted upon and identified, should release these funds to the NI economy.

7.4 The following conclusions are being made as a result of these:

- 1.) BT commercial investment covers less than 50% of premises in NI and this is reflected in the recent assessment by Ofcom of the 'fair bet', where BT commercial investment was shown not to be £2.5bn but £1.5bn.
- 2.) A substantial part of £60m NI subsidies would appear to have been diverted to cover what would be normally considered 'commercial' by BT (i.e. populated urban areas).
- 3.) BT capital contribution, if verified, to the subsidised build at some c£30-£35 a premise passed is just one third of the amount used by Ofcom in its 'fair bet' analysis. Unchecked, it appears Ofcom is supporting broadband prices where it assumes BT has invested a £100 per premise passed. In Northern Ireland this is not the case. It suggests that the gap funding principle has not been applied and BT has used its power in the market to invest less than the underlying commercial opportunity permitted.
- 4.) Fibre extensions through 'Fibre on Demand' have been withheld in NI from what is to all intents and purposes highly subsidised infrastructure. This is however offered as standard in other devolved administrations such as Wales. This aspect is discussed in Annex 2.

7.5 It is timely that the release of this paper coincides with the Wholesale Local Access Review, through which Ofcom will be reviewing prices for Broadband in 2017³⁰.

7.6 This report is thus recommending that the appropriate NI institutions, Northern

³⁰ Ofcom's Wholesale Local Access (WLA) review sets wholesale prices for Broadband access.

Ireland Audit Office, and Public Accounts Committee of NI Assembly when reconvened, in conjunction with Ofcom's WLA consultation,³¹ conduct a comprehensive audit of BT's commercial investment in Northern Ireland and its contribution to the subsidised programme. It would be in the public interest to have such audits and evidence, providing reassurances that funds contributed have been used for the purposes intended.

- 7.7 The findings reinforce the 'Fibre at a Crossroads – Part 1' conclusions that the regulatory regime should not by virtue of its independent status ignore any potential abuse of power. We note that Ofcom's appointed agents for NGA Cost modelling have already done much of the work needed and this is evidenced in the BDUK Adjustment spreadsheets available in the documentation supporting the consultation.³² The regulator should therefore use the WLA price-setting consultation process for Broadband in 2018 to verify BT's capital contribution and to also use its 'fair bet' analysis and extend it to the subsidy payments and an analysis of BT's required capital contribution. This is consistent with the desire to separate Openreach from BT, so that Openreach investment can be more clearly reported.
- 7.8 The capital issue raised here is in addition to the need to re-allocate some of the now £446m BT Capital Deferral owed back to government. Westminster Parliament's Environment Food and Rural Affairs (EFRA) Select Committee could apply itself to determining the location and status of BT's capital and work to secure the re-farming of BDUK funds recovered from subsidies used in urban areas, to finance rural areas still needing service investments.
- 7.9 One additional consequence of that assessment is likely to include that 'Fibre on Demand' extension products should be available to order at every NI exchange, such that BT can respond to reasonable requests for direct fibre access. See Annex 2.
- 7.10 Consistent, complete and accessible public reporting of the related data and use of public funds would be welcomed in future.
- 7.11 Information on commercial roll-out plans should also be made available, to negate any potential of public funds being used in areas which could instead be considered commercially advantageous for a network provider to invest in.
- 7.12 Securing the evidential detail and analysis that is called for in this report should encourage policy makers and Ofcom to push on with programmes which deliver direct fibre access services.

³¹ Ofcom WLA consultation – March 2017 – determines broadband pricing for next 3 years -2018-2021 where subsidies and BT's capital can be reconciled.

³² <https://www.ofcom.org.uk/consultations-and-statements/category-1/wholesale-local-access-market-review> WLA models available in the supporting documentation. See the BDUK adjustment worksheets.

- 7.13 Taken together and if acted upon, Northern Ireland could make significant progress in ushering in the supply of additional direct fibre connections needed.

Annex 1 – Counting Cabinets, BT Commercial and Subsidised using the Online ‘CodeLook’ Service

The following annex explains how a bottom up count of BT FTTC cabinets, commercially funded and subsidised was compiled. We are not claiming this is 100% accurate but are using it illustrate that the reporting is both possible and desirable. It cannot be claimed to be commercially sensitive if the data is sold commercially.

The data is to be used for illustrative purposes and it is intended to encourage and support a proper audit to be conducted by the appropriate authorities

The Codelook databases <http://www.telecom-tariffs.co.uk/codelook.htm> are used by industry and the public to understand who is using what number ranges in what BT exchanges. It uses BT Wholesale provided data sets made available commercially to a number of operators. Within that can be found details of individual FTTC cabinets and the associated build data which provide an indication as to who paid for what cabinet. The data also includes references to the number of premises which are served or can be served by that cabinet.

The data set used is marked Dec 2016. The data is not available to download so any compilation is reliant on taking screen dumps and scraping the data into Excel to recompile. This less than perfect process was only used to show what is possible and the numbers for BT commercial build can be shown to align with the numbers used for BT commercial build highlighted in Ofcom’s analysis³³ where BT’s commercial cabinets were counted to be 47,000. Counting BT’s cabinets using Code Look suggests a slightly higher number at 49,000. This annex describing the process of counting BT and subsidised cabinets uses the County of Tyrone, where the cabinet solution has brought great benefit but leaves many excluded³⁴.

The process is as follows;

Step 1 - Identify exchanges in County Tyrone

By inputting a counting name in the ‘locality’ field, the website offers back a list of BT exchanges for the County

³³ Ofcom Tables from Annex 12&13.

³⁴ <http://www.icban.com/f//Fibre%20at%20a%20Crossroads%20Summary%2029%20June%202016.pdf>

Database Updated: 11th May 2017
Page Updated: 30th December 2016

[Return to Telecom Introduction Page](#)

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lookup telephone numbers and cost

[ComCap v4](#)
data capture utility

[DUN Manager](#)
broadband and dial-up networking enhancement

[MailMaint](#)
POP3 email

[Delphi Developers](#)

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Partial Telephone Number to Lookup: Own Telephone Code (optional):

Locality or Post Code to Lookup: Call Costing Package: BT Unlimited Weekend Calls

Locality	Area Code
Aughnacloy, County Tyrone	028 85 All Exchanges
Ballypawley, Dungannon, County Tyrone	028 85 All Exchanges
Benburb, Dungannon, County Tyrone	028 37 All Exchanges
Beragh, Omagh, County Tyrone	028 80 All Exchanges
Bready, Strabane, County Tyrone	028 71 All Exchanges
Caledon, County Tyrone	028 37 All Exchanges
Carrickmore, Omagh, County Tyrone	028 80 All Exchanges
Castlederg, County Tyrone	028 81 All Exchanges
Clogher, County Tyrone	028 85 All Exchanges
Coagh, Cookstown, County Tyrone	028 86 All Exchanges
Coalisland, Dungannon, County Tyrone	028 87 All Exchanges
Cookstown, County Tyrone	028 86 All Exchanges
Donaghmore, Dungannon, County Tyrone	028 87 All Exchanges
Dromore, Omagh, County Tyrone	028 82 All Exchanges
Drumquin, Omagh, County Tyrone	028 82 All Exchanges
Dunamanagh, Strabane, County Tyrone	028 71 All Exchanges
Dungannon, County Tyrone	028 87 All Exchanges
Fintona, Omagh, County Tyrone	028 82 All Exchanges
Fivemiletown, County Tyrone	028 89 All Exchanges
Gortin, Omagh, County Tyrone	028 81 All Exchanges
Mountfield, Omagh, County Tyrone	028 80 All Exchanges
Moy, Dungannon, County Tyrone	028 87 All Exchanges
Newtownstewart, Omagh, County Tyrone	028 81 All Exchanges
Omagh, County Tyrone	028 82 All Exchanges
Pomeroy, Dungannon, County Tyrone	028 87 All Exchanges
Sion Mills, Strabane, County Tyrone	028 81 All Exchanges
Stewartstown, Dungannon, County Tyrone	028 87 All Exchanges

Step 2 Click on Exchange – Aughnacloy...identifying 7 cabinets
Clicking on the first exchange ‘Aughnacloy’ then reveals more details about that exchange including all cabinets associated with that exchange.

11th May 2017
Page Updated: 30th December 2016

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Partial Telephone Number to Lookup: Own Telephone Code (optional):

Locality or Post Code to Lookup: Call Costing Package: BT Unlimited Weekend Calls

Locality: [Aughnacloy, County Tyrone](#) [All Post Codes](#) [All 7 Fibre Cabinets](#)

Country: Northern Ireland Post Code: BT69
20CN IPStream: ADSL 21CN WBC: ADSL2+
Fibre: From 23rd August 2010 Type: FTTC
BT Exchange: Aughnacloy Exchange Code: NIAN

Step 3 – Click on Cabinets

Click on the 'all 5 cabinets' to reveal detail on each cabinet and the properties passed. You can also see the phase of the build and an install date.

Fibre Cabinet	Fibre Status	Phase	Properties Passed	Vendor	Approx Post Code
Cabinet P1	FTTC Available from 3rd October 2010	NI Phase 2	112	Huawei	BT69 6DY
Cabinet P2	FTTC Available from 26th August 2010	NI Phase 2	319	Huawei	BT69 6AD
Cabinet P3	FTTC Available from 6th November 2010	NI Phase 2	482	Huawei	BT69 6AT
Cabinet P4	FTTC Available from 23rd August 2010	NI Phase 2	252	Huawei	BT69 6AU
Cabinet P5	FTTC Available from 24th September 2010	NI Phase 2	82	Huawei	BT69 6DF
Cabinet P7	FTTC Available from 19th November 2014	Phase BDUK NI 13a	60	Huawei	BT70 1SJ
Cabinet P8	FTTC Available from 16th October 2014	Phase BDUK NI 13a	101	Huawei	BT69 6EZ

Check on Superfast Northern Ireland

Prior to Christmas 2016 this site <http://nibroadband.com/> provided a list of what was paid for through subsidy. Here the NI phase referred to NBP funded and Phase BDUK point to subsequent phases. DARD reference showed where DARD subsidy was used.

When you downloaded the data we can identify the cabinets paid by DETI in 2010-11.

From the initial 2010 work we can see DETI subsidised P1 to P5 in this case and BDUK pay for the remaining two cabinets.

{NIAN}{P1}	AUGHNACLOY	BT696AF	Dungannon
{NIAN}{P2}	AUGHNACLOY	BT696AF	Dungannon
{NIAN}{P3}	AUGHNACLOY	BT696AF	Dungannon
{NIAN}{P4}	AUGHNACLOY	BT696AF	Dungannon
{NIAN}{P5}	AUGHNACLOY	BT696AF	Dungannon

In this example we can see some large cabinets being subsidised which you would expect to meet BT's commercial criteria.

Step 4 - Paste to Excel, and create a tab for each exchange in the County. Aughnacloy

Tab into Excel

	A	B	C	D	E	F	G	H
1	Fibre Cabinet	Fibre Status	Phase	Properties Passed	Vendor	Approx Post Code		
2								
3	Cabinet P1	FTTC Available from 3rd October 2010	NI Phase 2	112	Huawei	BT69 6DY		
4	Cabinet P2	FTTC Available from 26th August 2010	NI Phase 2	319	Huawei	BT69 6AD		
5	Cabinet P3	FTTC Available from 6th November 2010	NI Phase 2	482	Huawei	BT69 6AT		
6	Cabinet P4	FTTC Available from 23rd August 2010	NI Phase 2	252	Huawei	BT69 6AU		
7	Cabinet P5	FTTC Available from 24th September 2010	NI Phase 2	82	Huawei	BT69 6DF		

By simply counting the cabinets and the premises and using pivot tables to count who led the investment, a County summary can be produced where a simple count of BT commercial cabinets and subsidised cabinets are counted. There are also counts for instances of FTTP locations and work scheduled to be done.

Step 5 – County Table for Tyrone

Locality	BT Cabs	BT Premises	subsidised cabs	Sub Premises	to do	FoD	FNA
Aughnacloy, County Tyrone	0	0		7	1408		
Ballygawley, Dungannon,	0	0		9	1806	2	1
Benburb, Dungannon, County	0	0		9	2078	2	
Beragh, Omagh, County Tyrone	0	0		8	1620	0	2
Bready, Strabane, County	0	0		6	819	0	0
Caledon, County Tyrone	0	0		8	1664	1	1
Carrickmore, Omagh, County	0	0		10	1564	0	0
Castledearg, County Tyrone	1	224	14	3793	0	0	0
Clogher, County Tyrone	0	0	5	1613	4		
Coagh, Cookstown, County	1	113	13	2537	4		
Coalisland, Dungannon, County	3	875	20	4835	3		
Cookstown, County Tyrone	0	0	33	7371	0	4	
Donaghmore, Dungannon,	0	0	15	2733	3		
Dromore, Omagh, County	0	0	7	1439	3		
Drumquin, Omagh, County	0	0	5	1104	0	0	0

The Counties table is then compiled into a table for Northern Ireland. The accuracy of the data is only as good as the BT wholesale data made available and will be subject to frequent changes.

The cabinet level allows you to compare what BT commercially invested and what it relied upon for subsidy.

We wish to argue that Ofcom’s ‘Fair Bet’ analysis should be extended to encompass all subsidised activity so that decisions on pricing are aligned with the appropriate level of investment by BT.

For completion purposes, the NI numbers are then compiled to provide the following representation.

	A	B	C	D	E	F	G	H	I	J
1	County	BT Exchanges	BT Commercial Cabs	BT Premises	Subsidised cabs	Subsidised Premises	DfE Cabs to do	Fibre on Demand	FNA	
2	Fermanagh	16	10	1707	124	28392	17	0	6	
3	Tyrone	30	69	20092	298	66063	49	12	6	
4	Armagh+C+B	18	131	36885	223	46734	60	7		
5	Antrim	58	666	222402	516	119756	180	20		
6	Down	45	172	56202	450	108499	165	22		
7	Londonderry/Derry	25	110	34499	245	55242	17	0		
8		192	1158	371787	1856	424686	488	61	12	
9										
10										

This table shows that BT commercial investment only amounted to 1,158 cabinets passing less than half of the premises in Northern Ireland. (Note there will be some minor variations as the data is quoted from multiple BT sources.)

The same data is available for all Counties and nations.

Annex 2 - The Role of Fibre Extensions

ICBAN's 'Fibre at a Crossroads – Part 1' report dealt in depth with the need for more direct fibre access. This is consistent with Ofcom and UK Government policy calling for more full fibre. The shortcomings of the BT cabinet solution are well understood and reported upon

widely. The distance limitations of the Fibre to the Cabinet (FTTC) solution was widely reported by respondents to the EFRA committee³⁵. Ofcom's 2015 'Nations' report stated 7% of customers connected to a cabinet would not see a benefit. Audit Scotland reports highlights that the plan shows that 23%³⁶ of customers may get less than the 24Mbps service across the Scottish contracts but the subsequent 2016 report has reduced this to 13%³⁷. There are many constituencies in rural NI where less than 50% of customers see any benefit from the installed fibre cabinet.

It is hoped the analysis in this report will contribute to the process of securing more investment in direct fibre access in NI. Action to review BT's capital contribution and the reuse and distribution of the £446m Capital Deferral in BT's accounts now acknowledged as owed to Government are important elements in pushing on with securing a more complete network upgrade for NI.

Extending fibre access beyond the operational limits of the cabinet is not new. Fibre on Demand was promised by BT as part of its commitment to BDUK. The planning of Fibre to the Premise (FTTP) GPON extensions should now be the norm. It was announced by the then CEO of Openreach at the Q4 results day in 2013-14. From the BT transcripts³⁸;

Liv Garfield (ex CEO Openreach)

'I guess the only two things to add to that is fibre on demand does go live across the entire estate, as Clive (Selley – current CEO Openreach) says, during the course of the next 12 months, so that gives you FTTP by choice, so if anybody wants it, they can have FTTP, that's new news.'

We understand Fibre on Demand is central to BT meeting its commitments in Wales. Fibre on Demand³⁹ has been identified promised and confirmed by BT as a deliverable in all of Wales. Since then a Public Account Committee (Wales) published an update on 21st September 2016⁴⁰. BT assured the Welsh Committee that 100Mbps Fibre on Demand service is available at all exchanges⁴¹. In addition 85,000 premises will benefit from FTTP in Wales.

However, its status in Northern Ireland is unclear. Using the same process as for counting cabinets, we can identify some 61 locations where some FTTP has been provisioned. But it is also being refused where it appears BT needs to protect its private circuit business.

Examples where FTTP on demand has been provisioned. Armagh

³⁵ Efra Select Committee, seventh report para 63

³⁶ http://www.audit-scotland.gov.uk/uploads/docs/report/2015/nr_150226_broadband.pdf p21 Exhibit 4.

³⁷ http://www.audit-scotland.gov.uk/uploads/docs/report/2016/nr_160818_broadband_update.pdf headline graph page 8.

³⁸ www.btplc.com results page q4 transcripts 2013-14

³⁹ Audit Wales report, paragraph 2.18 p36

⁴⁰ http://senedd.assembly.wales/documents/s55753/PAC5-09-16%20P5%20-%20WG%20Broadband%20Update_e.pdf

⁴¹ As per footnote 27 see BT response to Recommendation 3.

Fibre Cabinet	FTTC Status	Phase	FTTP Status	Properties Passed	Vendor	Approx Post Code
Cabinet E 1	FTTC doing Design, live due by January 2017	Phase BDUK NI 13a			Huawei	
Cabinet P1	FTTC Available from 26th October 2011	NI Phase 7b		229	Huawei	BT61 7HS
Cabinet P2	FTTC Available from 25th February 2012	NI Phase 7b		128	Huawei	BT61 0TA
Cabinet E 3	FTTC doing Design, live due by January 2017	Phase BDUK NI 13a			Huawei	
Cabinet P3	FTTC Available from 20th March 2012	NI Phase 7b		321	Huawei	BT60 1AD
Cabinet P4	FTTC Available from 7th June 2012	NI Phase 7b		200	Huawei	BT61 7BL
Cabinet E 5	FTTC Available from 26th June 2015		FTTP from 26th June 2015		Huawei	
Cabinet P5	FTTC Available from 28th March 2012	NI Phase 7b		555	Huawei	BT60 4AB
Cabinet P6	FTTC Available from 6th March 2012	NI Phase 7b		216	Huawei	BT60 4AX

Tulnacross

Fibre Cabinet	FTTC Status	Phase	FTTP Status	Properties Passed	Vendor	Approx Post Code
Cabinet P1	FTTC Available from 8th March 2011	NI Phase 4		227	Huawei	BT79 8HY
Cabinet E 2	FTTC Available from 9th December 2015		FTTP from 9th December 2015		Huawei	
Cabinet P2	FTTC Available from 20th November 2010	NI Phase 4		263	Huawei	BT80 9EL
Cabinet P3	FTTC Available from 19th December 2014	Phase BDUK NI 13b		67	Huawei	BT80 9EQ
Cabinet P4	FTTC Available from 21st December 2014	Phase BDUK NI 13b		89	Huawei	BT70 2SN
Cabinet P5	FTTC Available from 19th December 2014	Phase BDUK NI 13b		70	Huawei	BT80 9JN
Cabinet P6	FTTC Available from 21st December 2014	Phase BDUK NI 13b		113	Huawei	BT80 9LS
Cabinet P7	FTTC Available from 11th March 2015	Phase BDUK NI 13b		240	Huawei	BT80 9NP

Here we understand companies are still expected to pay extra through BT's Community Broadband Initiative, where BT has already provisioned FTTP in part of the exchange.

Cookstown

Fibre Cabinet	FTTC Status	Phase	FTTP Status	Properties Passed	Vendor	Approx Post Code
Cabinet E 1	FTTC Available from 14th March 2016		FTTP from 14th March 2016		Huawei	
Cabinet P1	FTTC Available from 5th June 2010	NI Phase 1		158	Huawei	BT80 8LL
Cabinet P2	FTTC Available from 12th June 2010	NI Phase 1		288	Huawei	BT80 8AF
Cabinet P3	FTTC Available from 20th June 2010	NI Phase 1		477	Huawei	BT80 8GD
Cabinet E 4	FTTC Available from 14th March 2016		FTTP from 14th March 2016		Huawei	
Cabinet P4	FTTC Available from 3rd July 2010	NI Phase 3		332	Huawei	BT80 8AB
Cabinet P5	FTTC Available from 16th June 2010	NI Phase 1		264	Huawei	BT80 8AS
Cabinet E 6	FTTC doing Design, live due by January 2017	Phase BDUK NI 13b			Huawei	
Cabinet P6	FTTC Available from 7th October 2010	NI Phase 4		307	Huawei	BT80 9DH
Cabinet P7	FTTC Available from 6th November 2010	NI Phase 3		135	Huawei	BT80 8SD
Cabinet P8	FTTC Available from 18th September 2010	NI Phase 3		52	Huawei	BT80 9AA
Cabinet P9	FTTC Available from 30th June 2010	NI Phase 1		453	Huawei	BT80 8JE
Cabinet P10	FTTC Available from 5th November 2010	NI Phase 5		484	Huawei	BT80 8BW
Cabinet E 11	FTTC Available from 14th December 2015		FTTP from 14th December 2015		Huawei	
Cabinet P11	FTTC Available from 25th June 2010	NI Phase 1		272	Huawei	BT80 8BS
Cabinet P12	FTTC Available from 31st March 2011	NI Phase 5		244	Huawei	BT80 8PN
Cabinet E 13	FTTC doing Design, live due by January 2017	Phase BDUK NI 13b			Huawei	
Cabinet P13	FTTC Available from 4th November 2010	NI Phase 4		312	Huawei	BT80 8DP
Cabinet E 14	FTTC Available from 10th December 2015		FTTP from 10th December 2015		Huawei	
Cabinet P14	FTTC Available from 16th December 2010	NI Phase 5		262	Huawei	BT80 8EA

Cookstown is a good example where some FTTP has been provisioned but then refused to business customers on the Derryloran Industrial Estate.

These illustrations when combined with the analysis on BT's capital contributions suggests much more is possible with the monies than have already been made available.

In addition to verifying BT's capital contribution we would recommend NI institutions gain a firm commitment to the provision of affordable direct fibre access services at all telephone exchanges.