

Emergency Call Answering Services Call Handling Fee review 2017

Consultation and Draft Determination

Reference: ComReg 16/95

Date: 07/11/2016

Additional Information

All responses to this consultation should be clearly marked :- "Submissions to ComReg 16/95", and sent by post, facsimile or email, or submitted on-line at www.comreg.ie (current consultations), to arrive on or before 5 December 2016, to:

Colman McEvoy
Commission for Communications Regulation
Irish Life Centre
Abbey Street
Freepost
Dublin 1
Ireland

Ph: +353-1-8049600 Fax: +353-1-8049680 Email: retailconsult@comreg.ie

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Content

Section		Page
1	Introduction	4
2	Background	8
3	Reasonable Costs	10
4	Volumes	15
5	Draft Determination	22
6	Regulatory Impact Assessment	23
7	Submitting Comments	24
8	Statutory Basis	25
9	Questions	26

1 Introduction

- 1 In Ireland, calling the emergency services is done by dialling 999 or 112, and these calls are initially received by the Emergency Call Answering Service ("ECAS").
- There are three ECAS centres or Public Safety Answering Points ("PSAP") in Ireland; one each in Navan, County Meath, Ballyshannon, County Donegal, and Eastpoint, Dublin 3. Authorised Undertakings forward all emergency calls to the ECAS and these are routed, as appropriate, to one of these three PSAPs. The PSAPs forward received calls, where appropriate, to the required emergency service. Two data centres underpin necessary system resilience for the PSAPs.
- In accordance with relevant Irish legislation, emergency calls are currently free of charge to the caller¹ on all networks.
- In 2009, the then Minister for Communications, Energy and Natural Resources ("the Minister") awarded a contract to BT Communications Ireland Ltd ("BT") to design, build, and implement the ECAS. This contract, known as the Concession Agreement ("CA"), is between these two parties alone. The ECAS is funded entirely through the Call Handling Fee ("CHF"). This is a fee payable by the presenting telephone network operator and/or the telephone call service provider whenever a customer on their network calls the ECAS.
- 5 ComReg is required² to annually review the maximum CHF that may be charged by the ECAS operator.
- In February 2016, ComReg, having concluded its annual review, retained the maximum permitted CHF at €3.82 for the year 12 February 2016 to 11 February 2017. To determine this figure, ComReg analysed the reasonable costs incurred by the ECAS operator and was further informed by third party consultants with relevant expertise in this area, and by the views of respondents provided in detailed responses to ComReg's consultation document on the matter.³

¹ Regulation 5 of the European Communities (Electronic Networks and Services) (Universal Service and Users' Rights) Regulations 2011

² Section 58(D)(I) of the Communications Regulation Act, 2002, as amended ("the Act of 2002")

³ ComReg Document No. 14/109

- This consultation concerns the maximum chargeable CHF, from 12 February 2017, and the views of Authorised Undertakings are sought on relevant matters through this consultation. The CHF charged for calls to the ECAS pays for the sunk capital investment and ECAS annual running costs. These costs are usually stable year on year and hence the CHF is usually very strongly influenced by call volumes. Consumers do not pay for 112/999 calls and operators' overall costs are essentially a product of the volume of calls by the price (CHF).
- The cost base (excluding prior period under-recoveries and/or identified cost discrepancies between BT actual costs and the predictive model used to determine the CHF ("the CHF Model")) of the ECAS has remained relatively stable. Currently it is c. € ★ per annum. Prior to the extension of the CA by the Department of Communications, Climate Action and Environment (DCCAE), the cost base was c. € ★ per annum. This represents a decrease of c21% due mainly to the change in the allocation of depreciation when the CA was extended by a further 2 years to July 2017.

Figure 1: Total annualised cost of ECAS operations

X

9 The ECAS currently handles c. 1.8m calls per annum. This is compared to 3.2m calls when the CA commenced or 4.8m calls when the first tender for the operation of the ECAS was issued. This contract expires in July 2017.

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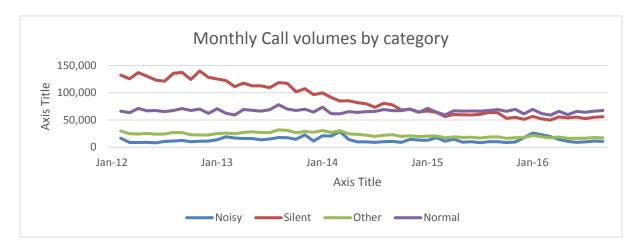
Figure 2: Operator share of call volumes

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- 11 Call volumes per operator have largely stabilised in recent years and operators' shares of call volumes broadly reflect their respective market share.
- 12 In the 2016-2017 CHF review and consultation, ComReg was of the preliminary view that calls would decline at a rate of 3.5%. Respondents to the consultation agreed with this assessment.

13 While this is discussed further in Chapter 4 the actual rate of decline has been just over 4.5% for the twelve months since October 2015, thus fewer calls than forecast. Consequently, there has been some under-recovery by the ECAS operator within the period. This is in addition to other under-recoveries in previous periods reflected as appropriate in the current CHF.

Figure 3: Monthly call volumes by category



- 14 Because of the structure of the ECAS solution, as required by the CA and discussed in previous consultations, the cost base of the ECAS does not decrease in direct proportion to the decrease in call volumes. Many of the costs associated with the operation of the ECAS must therefore be considered to be fixed.
- 15 Having carried out its analysis of the reasonable costs and the projected call volumes as well as accommodating appropriate under recoveries, ComReg proposes that the CHF to be applied from 12 February 2017 should increase from €3.82 to €3.95.
- 16 The movement in the proposed CHF can be summarised as follows:

2016-2017 CHF	€3.82
Changes in estimated call volumes ⁴	×
Pay and Non Pay Costs ⁵	×
2016-2017 proposed CHF	€3.95

⁴ Paragraph 37

⁵ Paragraph 40

17 ComReg is required to complete its review by 12 December 2016. If, by 12 December 2016, it appears that the rate of call volume decline will exceed 6% ComReg may further adjust the CHF accordingly. ComReg has commissioned Analysys Mason to assist it with its review of the CHF.

18 This Consultation is structured as follows:

Section 2: Background provides a brief history of the ECAS and its establishment, the responsibilities of the ECAS operator and the role of ComReg; as well as a high-level explanation of how the CHF is determined.

Section 3: Reasonable Costs outlines the practical meaning of the term "reasonable cost" and its use in this review. Such "reasonable costs" are the only ones allowable in determining the CHF.

Section 4: Volumes is a fundamental factor affecting the value of the CHF, that is, call volumes to the ECAS. The section outlines the trend in emergency call volumes in Ireland during recent years and also contains a forward-looking assessment for the coming year.

Section 5: Draft Determination contains ComReg's Draft Determination in relation to the CHF

Section 6: Regulatory Impact Assessment

Section 7: Submitting Comments

Section 8: Statutory Basis

Section 9: Questions

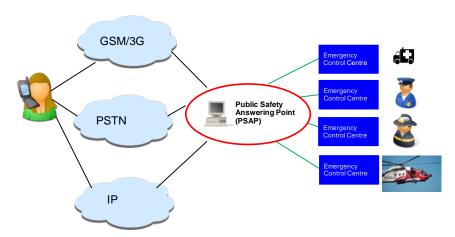
19 ComReg encourages stakeholders to respond to this consultation and thus to contribute to the continuing effective functioning of this key service. Should a respondent's submission contain confidential information, an additional document labelled "non-confidential" should be provided. Only this "non-confidential" version will be published by ComReg. In this context, ComReg maintains the confidentiality of information supplied, in accordance with Regulation 15 of the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 ("the Framework Regulations").

2 Background

Function and responsibility of ECAS

- 20 As noted earlier, the ECAS has three PSAPs and two data centres and has been designed and built to meet specifications of the CA. The configuration has not changed since the ECAS operator commenced operations. A Short Messaging Service ("SMS") service, which facilitates citizens with a disability, is also fully operational. Volumes associated with this facility remain relatively low and are included in the total reported call volumes for the ECAS.
- 21 When an end-user dials 999 or 112 using a fixed, mobile or VoIP service, ECAS answers the call, undertakes a triage to establish the precise nature of the emergency⁶ and forwards the call to the relevant emergency service based on the nature and location of the incident. The call-flow from the end-user to the emergency services, incorporating the ECAS function can be represented as follows:

Figure 4: Call Flow



Note: this call flow diagram is for illustrative purposes only.

22 ECAS must be available 24 hours a day, seven days a week and 52 weeks a year. It must be capable of dealing with operational demands at peak times and of catering for the loss of capacity of any PSAP in exceptional circumstances.

⁶ Not all calls to the ECAS are genuine calls. However, every call to the ECAS must be answered promptly and effectively to establish the nature of the call.

23 ECAS must perform to an exacting standard. The performance of the ECAS is monitored by ComReg and the DCCAE, in accordance with quantitative and qualitative performance metrics set out in the CA.

Determining the CHF

- 24 The following is an approximation of the principal cost categories:
 - "In Life" costs broken down as "Pay⁷" and "Non Pay⁸" Costs;
 - Annual depreciation/amortisation charge⁹;
 - The guaranteed rate of return¹⁰ and applicable rebate(s)¹¹;
 - Transfers to the applicable sinking fund¹²; and
 - Any over or under-recovery of costs in a prior period¹³.
- 25 "In Life" costs are subject to the reasonable cost review as set out in Chapter 3.
- 26 The CHF formula is derived by
 - Calculating the total costs found to be reasonable and estimated to the end of the CA; and
 - Dividing the reasonable cost by the estimated number of calls also to the end of the CA.
- 27 Call volumes are estimated by actual previous trends, external influences such as remediation programmes, and changes in the use of technology *vis-à-vis* the use of particular types of handsets, particularly for mobile phones.

⁷ Paragraph 83

⁸ Paragraph 95

⁹ Paragraph 96

¹⁰ Paragraph 101

¹¹ Paragraph 105

¹² Paragraph 110

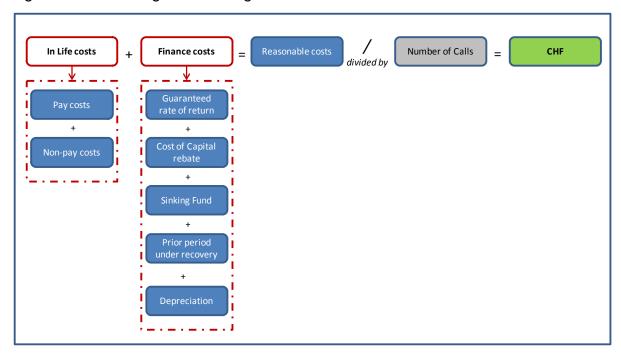
¹³ Paragraph 49

3 Reasonable Costs

Overview

- 28 Under the CA a "reasonable cost" is defined as "... all necessary costs incurred by the Contractor in the normal course of business, such as capital outlay, depreciation, heating and lighting, labour, the annual Monitoring Costs and the Final Monitoring Costs of ComReg, adjustment for any over or under-recovery of the Guaranteed Return for any previous Call Handling Fee Periods and costs that may be incurred as a result of having to comply with any law"
- 29 This section discusses the main changes in costs between the 2016-2017 CHF review and this review. Annex: 1 discusses in more detail the actual costs incurred by the ECAS operator in running the ECAS operation during its financial year to 31 March 2016 and the three months to June 2016. Within each category, ComReg provides an overview of how the cost is derived and whether or not ComReg considers it to be reasonable. Due to the commercial sensitivity and confidential nature of much of the data, many of the specific details analysed by ComReg and its specialist consultants cannot be published in this consultation.
- 30 ComReg's preliminary view is that the majority of costs incurred by the ECAS operator are reasonable. This preliminary finding is supported by the following:
 - A review of "In Life" costs has been carried out annually as part of the CHF reviews. Earlier reviews found certain costs to be unreasonable at those times. As a result, the ECAS operator has either implemented tighter procedures, applied new principles, or provided further justification to ComReg for how it accounts for certain costs. Because of these remediation's, the likelihood that these costs would be found to be unreasonable again as part of the current review is greatly reduced.
 - The ECAS operation consists of a high level of fixed costs and therefore costs incurred are unlikely to vary significantly from year to year.
- 31 The figures below provide an overview of the various cost categories which are recovered as part of the CHF. Each of these is discussed in greater detail in Annex 1.

Figure 5 – cost categories relating to the CHF



- 32 In-life costs are the day-to-day costs of running the ECAS operation and represent ComReg's assessment of the "steady state" of reasonable costs to the end of the CA for inclusion in the CHF. Finance costs are the costs associated with financing the project over the term of the CA.
- 33 As part of the annual CHF review ComReg assesses the underlying costs of the ECAS. These costs are considered to be relatively stable from year to year. Some slight variation in annual costs will take place depending on circumstances.
- 34 The relative percentage allocations of reasonable costs for the purposes of the CHF review are as follows:

Figure 6: Total Costs

X

- 35 The following underlying costs are discussed in more detail as these form the basis of the majority of the proposed increase in price of the CHF, from €3.82 to €3.95.
 - Changes in estimated call volumes;
 - Pay and non-pay costs

36 While there has not been any major change in the nature or classification of the costs incurred since the last review or with previous reviews, it was identified during the course of the current review that there were some differences between costs actually incurred by BT and costs reflected in the CHF Model. These are discussed in more detail below.

Changes in estimated call volumes (increase in CHF of \times)

- 37 As noted, call volumes from October 2015 to September 2016 were predicted to fall 3.5% year on year, but have dropped by 4.5%. This means that fewer calls were answered by the ECAS in that period than had been forecast.
- 38 In addition to the above the forecast call volumes for the period October 2016 to July 2017 are now projected to decline by approximately 6% rather than 3.5% as per last review.
- 39 The net effect of the above is to reduce projected call volumes by c58,000 and corresponding revenues by c€220,000 which when using projected calls for the final five month period of c690,000 results in an upward movement in the CHF of ★.

Pay and Non Pay Costs – (decrease in CHF of ≫)

- 40 While the overall adjustment to the CHF in respect of Pay and Non Pay Costs is a decrease of ★ it should be noted that this is comprised of a number of items which when combined result in a net movement of ★
- 41 BT Pay Costs are now forecast to be c€ lower than was forecast at last review. This, in isolation, would have the effect of reducing the CHF by €.
- 42 On review of the figures it appears that the Direct Support element of BT Pay was forecast too high. In addition to this, BT also hired a new Contact Centre Manager during the last financial year at an additional cost of ★ per quarter.
- 43 ComReg is of the view that the additional cost of this manager, when compared to the previous manager, should be excluded from the CHF calculation.
- 44 We would note that as call volumes declined, a review of call centre hours in the CHF model was undertaken. This led to the number of hours in the CHF model being adjusted to reflect a decline in call volumes.

- 45 Preliminary investigation has shown that this adjustment may have created an over-correction such that the cost allocation for call centre hours may have been underestimated. Any potential under-recovery here is not being addressed through the proposed CHF but this point will be revisited at the conclusion of the CA.
- 46 There were a number of specific Non Pay costs incurred by ECAS in the last financial year which are incremental to the forecast costs contained in the 2016/2017 CHF Review. These include the following:
 - Upgrade of Navan STM1¹⁴ to STM4 and increase in STM1 charges
 The circuit to Navan was upgraded to STM4 in 2014/2015 however, the
 cost impact was not included until Q4 2015/2016 quarterly management
 accounts. The annual cost increase is

 as well as initial outlay of

 As well as the enhanced capacity, the SDH¹⁵ technology underpinning
 these circuits is legacy at this stage and attracts a higher cost.
 - SMS Costs A new infrastructure for handling the 112 ECAS SMS traffic was implemented in September 2015. This provides higher availability and resilience while minimising ongoing platform updates, to provide a more stable environment. The total cost was approximately split between set up and monthly support.
- 47 These costs (other than the capital element) have been excluded in the calculation of the CHF.
- 48 The balance of ★ of the downward movement in CHF is largely attributed to changes in assumptions around a number of non-pay, depreciation and other items as part of current review when compared to those included as part of the review for 2016/2017.

Note on prior period under-recovery

- 49 With the significant decline in call volumes since the start of the CA and with the declines being greater than forecast, there has historically been an issue in terms of the ECAS operator under-recovering its reasonable costs.
- 50 During the 2016/2017 CHF this under-recovery was estimated at \gg

¹⁴ Synchronous Transport Module

¹⁵ Synchronous Digital Hierarchy

51 The CHF model has been adjusted as part of this review to capture any underrecovery and so there is now no under-recovery for call volumes forecast on expiry of the ECAS contract.

Monitoring costs

52 ComReg can confirm that its monitoring costs¹⁶ associated with the carrying out of this review are not, at this time, being recovered through the CHF.

¹⁶ Section 58 (E) of the Act of 2002

4 Volumes

53 When the ECAS operator entered the CA with the State, the annualised tendered volume of emergency calls was 4.8 million. Since that time, there has been a marked and steady decline. Current volumes are approximately 1.8 million calls per annum. This movement is reflected in Figure 10 below:

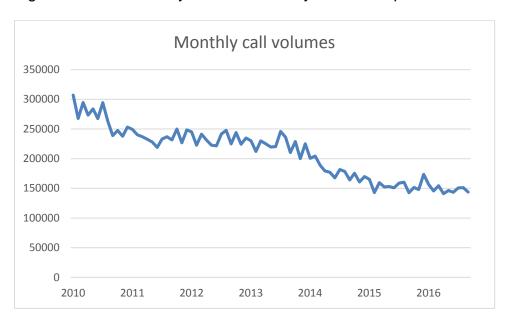


Figure 7: ECAS monthly call volumes July 2010 to September 2016

- 54 As the cost base is considered to be stable (and was designed to handle 4.8 million calls) the decline in call volumes has had, and is likely to continue to have, an impact on the CHF. Many of the costs are considered to be relatively fixed:
 - A minimum number of customer service representatives (CSRs) is required to operate the service;
 - The ECAS operator is required to provide various levels of management and support;
 - Third party costs remain largely fixed for the term of the CA;
 - the initial capital investment is depreciated over the life of the CA;
 - The guaranteed rate of return and sinking fund are determined by the CA.
- 55 ComReg publishes regular information notices on ECAS call volumes. Figure 8 below (which is taken from ComReg Information Notice No. 16/74) shows the differences in monthly call volumes between January and June 2015 and 2016.

Figure 8: Call volumes January – June 2016 v January to June 2015

	2016	2015	Difference	% Difference
January	156,533	165,315	<8,782>	-5.31%
February	145,609	142,903	2,706	1.89%
March	154,608	159,547	<4,939>	-3.09%
April	141,023	152,329	<11,306>	-7.42%
May	146,416	153,251	<6,835>	-4.46%
June	143,375	151,004	<7,629>	-5.05%
January to June Total	887,564	924,349	<36,785>	-3.98%

56 Call volumes for July to September 2016 compared to July to September 2015 were:

Figure 9: Call volumes July – September 2016 v July – September 2015

	2016	2015	Difference	% Difference
July	150,828	158,923	<8,095>	-5.1%
August	151,352	160,555	<9,203>	-5.7%
September	143,314	142,688	626	0.4%
July to September Total	445,494	462,166	<16,672>	-3.5%

- 57 The average rate of decline in call volumes from January 2016 to September 2016 has been 3.8%.
- 58 For this review, ComReg has calculated its forecast call volumes based on the following:
 - Actual call volumes from the Go Live date to September 2016; and

- Projected call volumes for October 2016 to July 2017.
- 59 The call volumes from the Go Live date to September 2016 are the call volumes recorded and categorised by the ECAS operator. For the purpose of this review ComReg is considering the following four categories:
 - Normal these are calls connected to an Emergency Service;
 - Noisy these are false calls generated on Eir's fixed line network.
 They tend to be weather related;
 - Silent these are false calls which tend to be generated by misdials on mobile handsets;
 - Other¹⁷ these are all other remaining categories of calls. These
 include children playing, pure nuisance calls and calls hitting the
 ECAS switch which are cancelled before being answered by a
 CSR.
- 60 The average percentage split in these four categories between October 2015 and September 2016 is shown below:

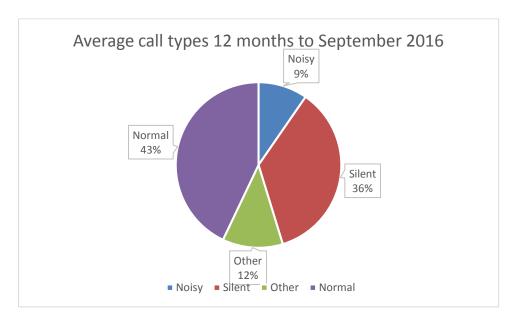


Figure 10: Average call types 12 months to September 2016

Normal calls

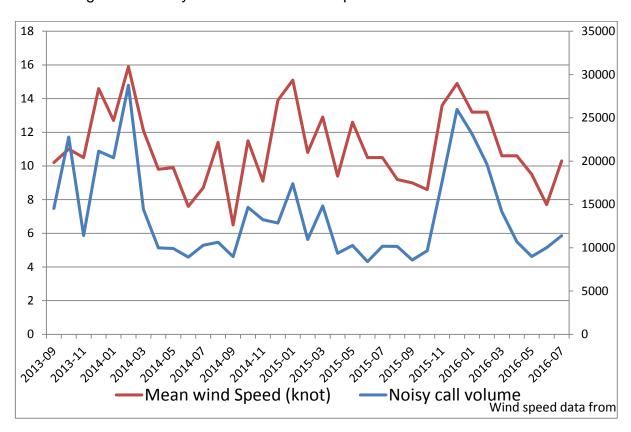
61 The level of normal calls has remained relatively stable between 2012 and 2016 and averages c. 65,000 calls per month.

¹⁷ The ECAS operator further sub-divides this category

62 ComReg is of the preliminary view that the level of normal calls will remain relatively stable to the end of the CA.

Noisy calls

- 63 Noisy call volumes are influenced heavily by the weather. Windy conditions increase the volume of noisy/faulty lines that dial 112. The graph¹⁸ below shows the correlation between the mean wind speed per month as recorded at the Dublin airport weather station and the volume of noisy calls into ECAS.
 - Figure 11: Noisy Lines vis a vis wind speeds



- 64 The graph shows that between September 2013 and July 2016 there appears to be a significant level of correlation between calls generated by noisy lines and mean wind speed.
- 65 Currently, there are approximately 11,000 noisy calls per month. 12 months ago there were approximately 10,000 noisy calls per month. This represents an increase of c.10%. Eir is given a weekly report by the ECAS operator which identifies lines that generate the greatest number of noisy calls in a month. ComReg understands that this may inform Eir in its assessment of which lines are likely to have faults and require remediation.

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¹⁸ Source – BT Presentation to ComReg September 2016

66 ComReg is of the preliminary view that the volume of noisy calls will remain at similar levels between now and the expiry of the ECAS contract.

Silent calls

- 67 The number of silent calls appears to have broadly stabilised.
- 68 There was, in prior years and in particular between 2013 and 2014, a significant decline in silent calls. This decline appears to represent a change in consumer preferences for handset types from those with raised buttons to smart phones.



Figure 12: Silent calls

- 69 The decline in silent calls appears to have largely ceased and a relatively steady state of silent calls has been achieved.
- 70 ComReg is of the preliminary view that the level of silent calls will remain relatively stable to the end of the CA.

Other

- 71 The number of other calls appears to have stabilised. Between January and September 2016 there was an estimated monthly average of 18,000 "Other" calls per month.
- 72 Within this category the ECAS operator has noticed a decline in pure nuisance calls. Also the number of calls that are generated, (hit the ECAS switch), last momentarily and are gone before they can be answered by a CSR while reduced also appears to have stabilised.

73 ComReg is of the preliminary view that the level of other calls will remain relatively stable to the end of the CA.

Summary

- 74 Based on volumes from October 2015 to September 2016, normal, silent and other calls account for c. 90% of total calls. ComReg is of the preliminary view that there will not be any significant decline in these volumes between now and the end of the CA.
- 75 Since ComReg commenced its reasonable cost reviews of the ECAS it has, in conjunction with industry, forecast call volumes. The following is a summary of forecast call volumes compared to their actual out-turn:

Figure 13:	Actual vs t	forecast call	volumes
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ComReg Document	Year	Forecast rate of decline	Actual rate of decline
12/01	2013	3.5%	1.5%
13/02	2014	2.0%	4.8%
14/04	2015	3.0%	20.4%
15/02	2016	11.7%	15.3%
16/03	2017	3.5%	4.5%

- Given the difficulty in forecasting call volumes, and also the fact that for four of the last five years the rate of decline has been greater than that forecast, ComReg is of the preliminary view that the forecast rate of decline should reflect potential unforeseen declines. ComReg is of the preliminary view that a forecast rate of decline of 6% is appropriate in the circumstances.
- 77 However, greater reductions than those forecast will have a direct impact on the CHF. In order to forecast call volumes as accurately as possible and to take into account as much robust external information as possible, ComReg requests that all operators submit (as part of this consultation process) details of any programmes or initiatives, which they are currently undertaking, or are about to undertake, or any relevant market developments, which are likely to impact upon ECAS call volumes. Such information will be treated confidentially as appropriate.

- Q. 1 Please outline any programme or initiatives, planned for the short to medium term (1 to 2 years), or any relevant market developments, in particular changes in the handset population profile, which may significantly affect the forecasted volume of emergency calls.
- Q. 2 Do you agree or disagree with the proposed forecast of the call volume decline rate of 6% from February 2017 to July 2017? Please provide detailed reasoning and calculations for your views.
- Q. 3 Are there any other matters which you wish to raise as part of this review? Please provide detailed reasoning and accompanying calculations (where appropriate) for your views.

5 Draft Determination

Definitions

- 1.1 In this determination:
 - "the Act" means the Communications Regulation Act 2002;
 - "the Commission" means the Commission for Communications Regulation established under section 6 of the Act;
 - "emergency call" has the same meaning as in section 58A of the Act; and
 - "the emergency provider" means BT Communications Ireland Limited.

2 Determination

- 2.1 The Commission makes this determination:
 - In exercise of its powers under section 58D (2) of the Act;
 - Pursuant to the review conducted by it under section 58D (1) of the Act:
 - Having had due regard to section 58D (3) of the Act;
 - Pursuant to Commission Document No. XX and Commission Document No. XXa;
 - Having duly taken account of the responses received to Commission Document No. XX and Commission Document No. XXa; and
 - Having regard to the reasoning and analysis conducted by the Commission and set out in this response to consultation and determination.
- 2.2 The Commission hereby determines that for the period from 12 February 2017 the maximum permitted call handling fee that the emergency provider may charge to entities who forward emergency calls to it for handling such a call shall be €3.95.
- 2.3 This determination is effective from the date of the publication of this response to consultation and determination.
- Q. 4 Do you agree or disagree with the wording of ComReg's Draft Determination? If not, please state your detailed reasoning.

6 Regulatory Impact Assessment

78 ComReg is not imposing a regulatory obligation upon any stakeholder. The obligation to pay the CHF is imposed by the Act of 2002. The Act of 2002 also obliges ComReg to conduct the review and to determine the CHF annually. ComReg has no discretion to refuse to do so.

7 Submitting Comments

- 79 The consultation period will run from 7 November 2016 to 5 December 2016, during which ComReg welcomes written comments. It is requested that comments be cross-referenced to the relevant question numbers from this document.
- 80 Having analysed and considered the comments received, ComReg will publish a response to consultation and decision in January 2017.
- 81 In order to promote further openness and transparency, ComReg will publish all respondent's submissions to this consultation. However, ComReg must strictly maintain the confidentiality of any information provided to it in confidence. Electronic submissions should be submitted in an unprotected format so that they can be appended into the ComReg submissions document for publishing electronically.

8 Statutory Basis

82 Section 58 (A) – 58 (H) of the Communications Regulation Act 2002 (as inserted by section 16 of the Communications Regulation (Amendment) Act 2007 provides generally for the establishment of the ECAS and associated matters. Section 58 (D) obliges and empowers ComReg to review and determine the maximum permitted CHF on an annual basis.

9 Questions

- Q. 1 Please outline any programme or initiatives, planned for the short to medium term (1 to 2 years), or any relevant market developments, in particular changes in the handset population profile, which may significantly affect the forecasted volume of emergency calls.
- Q. 2 Do you agree or disagree with the proposed forecast of the call volume decline rate of 6% per annum? Please provide detailed reasoning and calculations for your views.
- Q. 3 Are there any other matters which you wish to raise as part of this review? Please provide detailed reasoning and accompanying calculations (where appropriate) for your views.
- Q. 4 Do you agree or disagree with the wording of ComReg's Draft Determination? If not, please state your detailed reasoning.

Annex: 1 Analysis of cost categories

Pay Costs

- 83 Pay costs comprise CSR costs and the ECAS operator's payroll costs associated with the provision of the ECAS. Both of these are discussed in more detail below. However, the estimated annualised pay costs are approximately % with their relative percentages approximately % between the CSRs and the ECAS operator's own pay costs respectively.
- 84 ComReg considers that, while there may be slight fluctuations due to operational requirements, pay costs have reached a relatively steady state.

CSR costs

- 85 CSR costs relate to the staffing of the three PSAPs. There are approximately \times CSRs comprising part-time and full-time staff.
- 86 The ECAS operator uses an industry standard "Erlang" resourcing model to determine the number of CSRs it requires across each of its PSAPs. In doing so, it estimates the number of calls for a six week period and to this it applies a number of operational parameters, as set out in the CA. By applying each of the performance metrics to the estimated call volumes, a minimum number of CSR hours are forecasted. The ECAS operator also has a health and safety policy of having a minimum of two CSRs present on each site at any one time. This facilitates appropriate breaks, ensures that the work environment is safe, (particularly late at night) and allows CSRs time to recover if they have taken especially stressful calls. In ComReg's preliminary view this appears to be a reasonable approach to resource management.
- 87 Once the ECAS operator has determined the number of CSR hours it requires, the individual CSRs are rostered by a specialist call-centre company. All CSRs are employed directly by the specialist call-centre company only.
- 88 As the call arrival pattern at any given point during the day or week, can vary, the number of CSRs rostered can also vary. Foreseen and unforeseen factors that influence this include:
 - Time of day (certain call patterns are more prevalent depending on the time of the day);
 - Time of week (there can be a higher rate of calls at certain times of the week e.g. weekend nights);
 - Public holidays (St. Patrick's Day, Halloween, New Year's Eve);
 and

- Other incidents which are outside the control of the ECAS operator, but still require an effective response, are traffic related accidents and weather related incidents.
- 89 No refinements or recommendations on how CSRs are rostered are being made as part of the 2017 CHF review. Recommendations made by ComReg during previous reviews have been implemented by the ECAS.
- 90 The specialist call-centre company charges the ECAS operator an hourly rate for each of the CSRs it rosters. Included in the hourly rate are the following main cost components:
 - Basic pay, including bonus and employers PRSI;
 - An allowance for "unavailable hours";
 - Overheads associated with providing the ECAS service; and
 - General overheads.
- 91 ComReg is of the preliminary view that an hourly rate of

 payable to the specialist call-centre company is reasonable. The breakdown of this hourly rate is represented by the following Figure 14. Much of the information used to determine the hourly rate is commercially sensitive. Also with the pending conclusion of the current CA and the forthcoming invitation to tender by the DCCAE for the next CA ComReg on the grounds of the commercially sensitive nature of the information has redacted all values.
- 92 Basic pay, including bonus and employers PRSI constitutes approximately ★ of the hourly rate. A further ★ of the hourly rate relates to the hours when CSRs are unavailable. This includes the cost of holidays, sick leave, and ongoing training. Therefore approximately ★ of the hourly rate payable to the specialist call-centre company relates directly and indirectly to the salary of CSRs.

Figure 14– specialist call-centre company hourly rate cost categories

Cost component	Hourly rate
Basic salary – c. ⊁	*
Bonus − c. ×	*
Employers PRSI – 10.75%	*
	*
Unavailable hours	
(Training, absences, holidays, churn)	*
Specific overheads (rosters, call-centre coordinators)	*

Cost before general overhead	*
General overhead	<u></u>
Sub total	*
Rate of return	%
ComReg's preliminary view of a reasonable hourly rate	*

BT Payroll Costs

- 93 The ECAS operator's own pay costs are approximately \times per annum. While there have been some minor fluctuations in these costs they have remained relatively stable for many years.
- 94 The ECAS operator's own pay costs (i.e. other than the CSRs) can be categorised broadly as follows:
 - Dedicated to ECAS;
 - Engineering and technical support charged as required to ECAS;
 and
 - Other support services charged as required to ECAS.

Non-pay costs

- 95 The ECAS operator's non-pay costs are approximately \times per annum. Its non-pay costs primarily consist of:
 - Premises;
 - Backhaul;
 - Network maintenance;
 - Other non-pay costs.

Depreciation / Amortisation

- 96 Another significant cost is the annual depreciation and amortisation charge. The estimated annual cost of the depreciation and amortisation charge in the initial years of the CA was %. This was based on an initial investment of approximately %, which was being written-off over the initial term of the CA (i.e. five years) together with additional depreciation on capital expenditure incurred in the intervening period.
- 97 In 2014 the Minister extended the CA by two years. At this stage the initial investment was heavily depreciated. The net book value of c. is now being written off over the remaining life of the extended contract.

- 98 Some of the fixed assets may have asset lives greater than seven years. In previous reviews these assets were written on a straight line basis over the term of the CA.
- 99 As the assets purchased for ECAS are inherently linked to its operation it is likely that the residual value of any assets would be nil. At the end of the CA, should an alternative ECAS operator be awarded a new CA, it is unlikely that many of the assets could be used in any new ECAS operation unless the alternative provider was to be located at the same sites as the existing PSAPs. It is also unlikely that the assets could be successfully reused in the wider BT telecommunications network. Only the Minister can hold a public tender process to award any subsequent ECAS contracts. Therefore decisions on how to treat such assets can only be made by the parties to the CA. A decision to alter the depreciation policy as governed by the CA is not a matter for ComReg to decide.
- 100 Minimal additional capital expenditure was incurred during the period under review or is expected to be incurred between now and the end of the CA. However, if requests are received in line with the service requirements of the DCCAE on behalf of the Irish Government, (e.g. changes required to facilitate the reception and onward transmission of enhanced Caller Location Information or similar) these will be assessed by ComReg. Under the terms of the CA, the ECAS operator would be entitled to recover any such additional capital expenditure through the CHF.

Guaranteed rate of return

- 101 Under the CA, the ECAS operator is allowed a guaranteed rate of return on its investment (fixed assets and set-up costs). This has been set at 6.63% on the gross book value of its investment (fixed assets and set-up costs) for the term of the CA. As the guaranteed rate of return is part of the CA, the setting of the guaranteed rate of return it is not within the scope of the review that ComReg must conduct under the Act of 2002
- 102The guaranteed rate of return also covers any interest costs associated with finance agreements that the ECAS operator may have entered into in relation to its ECAS operation.
- 103 Based on an investment of approximately €11m the guaranteed rate of return is approximately €750k per annum to the end of the CA. As it is based on the gross book value of assets, the return earned annually by the ECAS operator does not vary other than for the impact of capital additions. If it were based on the net book value of the assets by the end of the CA the ECAS operator would not earn a return as the assets would be valued at close to zero as it does not engage in an annual re-investment programme.

104As the DCCAE has extended the CA by an additional two years the guaranteed rate of return continues to apply to both the initial capital investment as well as any subsequent investment.

Cost of capital rebate

- 105 When the ECAS operator won the tender to manage the ECAS operation, it based its proposal on there being approximately 4.8m emergency calls per annum. The maximum permitted CHF of €2.23 was set by the Minister in order to allow the ECAS operator to recover the cost of operating the ECAS at this volume of calls.
- 106 However, there was a significant fall in call volumes from the date when the CA was signed to the Go Live date. Therefore, the per-unit cost of running ECAS was greater than the initial CHF of €2.23. As a result the ECAS operator significantly under-recovered its costs during the initial period of the CA. This under-recovery was primarily offset by an increase in the maximum permitted CHF to €3.35 during the 2011-2012 CHF review.
- 107 However, as the ECAS operator under-recovered its costs in 2010-2011 as a result of the initial CHF being set too low the ECAS operator had to self-finance this under-recovery. The cost of capital rebate is the estimated cost of the interest of this self-financing and is spread over the remaining period of the CA.
- 108 The cost of capital rebate was assessed in 2009-2010 by ComReg and considered to be reasonable and is to be spread over the life-time of the CA. It is approximately ≫ per annum when the CA commenced but on a reducing scale over the life of the CA¹⁹.
- 109 A cost of capital rebate has not been applied for any under recoveries incurred by the ECAS operator since the Go Live date. Previous under recoveries are included as part of the overall cost recovery of the ECAS operator.

Sinking fund

110 Under the CA, the ECAS operator is required to transfer €250,000 per annum into an escrow account and this payment is included in the maximum permitted CHF. The escrow account is held and managed by the DCCAE and is not under the control of ComReg or the ECAS operator.

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- 111 Use of the sinking fund is the responsibility of the DCCAE. Under the CA the purpose of the sinking fund is to address:
 - Any exit costs which BT may incur, should it be required to provide a parallel service along the lines of that provided by Eir when it was exiting from the provision of the ECAS service during September and October 2010;
 - Any under-recovery which remains outstanding at the end of the CA
- 112At the end of the CA ECAS is expected to have paid approximately €1,750,000 into the sinking fund in total. Funds of approximately ★ have been used to date to fund costs in relation to SMS Development, Eircodes and AML.
- 113On review of the CHF for the period from 12 February 2017, ComReg have identified a number of potential items which may be eligible to be paid from the Sinking Fund. This will be subject to further review on expiry of the CA.