Commission for
Communications Regulation

Emergency Call Answering Services
Call Handling Fee review 2014-2015

Consultation and Draft Determination

Reference:	ComReg 13/96
Version:	Final non-confidential
Date:	21/10/2013

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Additional Information

All responses to this consultation should be clearly marked :- "Submissions to ComReg 13/96", and sent by post, facsimile or email, or submitted on-line at www.comreg.ie (current consultations), to arrive on or before 15 November 2013, to:
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Content

1 Introduction

1 Requesting assistance from the emergency services is one of the most important telephone calls that a citizen will make and expert treatment of such calls is fundamental to a functioning and stable society. In Ireland, the call to the emergency services is done by dialling 999 or 112 and the organisation and handling of these calls is carried out by the Emergency Call Answering Service ("ECAS"). This is the centralised system where all emergency calls are delivered.

2 There are three ECAS centres in Ireland; one each in Navan, County Meath, Ballyshannon, County Donegal, and Eastpoint, Dublin 3. These centres are known as Public Safety Answering Points ("PSAPs"). Authorised Undertakings forward all emergency calls to the ECAS and these are routed, as appropriate, to one of these three PSAPs. The PSAPs are then responsible for forwarding every emergency call to the appropriate emergency service, as quickly and effectively as possible. Two data centres underpin necessary system resilience for the PSAPs.

3 In accordance with relevant Irish legislation, emergency calls are free of charge to the caller[1] on all networks.

4 In 2009, the 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 caller calls the ECAS.

5 By law[2], ComReg is required to annually review the maximum CHF that may be charged by the ECAS provider. This consultation is part of the review.

6 In February 2013, having concluded its annual review, ComReg set the maximum permitted CHF at €2.93. In arriving at this figure, ComReg analysed the reasonable costs incurred by the ECAS provider and was further informed by the views of respondents provided in response 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. 12/112

7 ComReg is again seeking the views of Authorised Undertakings through a consultation on a number of key matters. These matters, which directly affect the CHF, relate to the reasonable costs of inputs having regard to the right of the ECAS provider to recover its reasonable costs and a guaranteed rate of return[4]. Call volumes are also a key component of the analysis.

8 **As a result of this review ComReg proposes that the CHF to be applied from 12 February 2014 should be €3.08 and this would result in an increase of approximately 5%. This increase is primarily due to lower than predicted call volumes.**

9 ComReg encourages all relevant stakeholders to respond to this consultation and to contribute to the continuing effective functioning of the service. If a respondent’s submission contains confidential information, an additional document labelled “non-confidential” should be provided. This version will be published by ComReg. Given the commercially sensitive nature of much of the information relevant to the review of the CHF, ComReg has maintained the confidentiality of the relevant information, as it is obliged to do under Regulation 15 of the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011 (“the Framework Regulations”) . At the same time, ComReg has ensured that the consultation provides sufficient information for the key issues to be comprehensible and for stakeholders to be in a position to address those issues.

10 ComReg commissioned an expert report from Analysys Mason to assist it with its review of the CHF. A non-confidential version of this report is appended to this consultation to further inform consultation respondents.

[4] Pursuant to Section 58(D)(3)(a) of the Act of 2002.

2 Executive Summary

11 This consultation seeks the views of interested parties relating to the maximum CHF that the ECAS provider can charge for the provision of the ECAS from 12 February 2014 to 11 February 2015.

12 Prior to issuing this consultation, ComReg and its consultants have obtained and analysed all necessary financial information. This has entailed a detailed examination of the "in-life" cost components of the ECAS service and an assessment of their "reasonableness". The "set-up costs" incurred by the ECAS provider in designing, building and implementing the ECAS were reviewed previously and, therefore, are outside of the scope of this year's review.

13 While the cost base has remained relatively stable there has been lower than predicted call volumes. ComReg is of the preliminary view that the maximum permitted CHF for the period 12 February 2014 to 11 February 2015 should be increased to **€3.08. This would result in an increase in current maximum permitted CHF of approximately 5%.**

14 This increase is primarily due to lower than predicted call volumes and some additional capital expenditure. These are explained further below:

2013/2014 CHF	€2.93
Lower than estimated call volumes	€✂
2014/2015 capital expenditure	€✂
Pay & non-pay costs	<€✂>
2014/2015 proposed CHF	€3.08

<u>Lower than estimated call volumes</u>

15 The 2012/2013 CHF review estimated that call volumes would decline at c.2.0%. This estimated rate of decline and resulting CHF for 2012/2013 calculated that the prior year under-recovery, as brought forward into the 2012/2013 CHF review, would be recovered over the remaining life of the CA, all other things being equal. The actual rate of decline in call volumes has been closer to 3.0%. This has resulted in a further under-recovery of costs by the ECAS provider for 2012/2013, as opposed to clearing the prior period under-recovery, thereby increasing the overall level of the under-recovery which must be recovered by the end of the CA.

16 Given the new predicted rate of decline of 3.0% for the remainder of the CA and in order for the ECAS provider to fully recover its reasonable costs (as well as prior period under-recoveries) the CHF must increase from 12 February 2014 to the end of the CA.

<u>2013/2014 capital expenditure</u>

17 The ECAS has incurred c. €✂ in capital expenditure, which, in accordance with the CA, was pre-approved by ComReg. Also, in accordance with the terms of the CA this amount must be written off over the remaining life of the CA.

<u>Pay and non-pay costs</u>

18 Overall there has been a slight decline in pay and non-pay costs. There have been certain savings due to Customer Service Representatives (“CSR”) hours being less than forecast as well as some other cost savings achieved by the ECAS provider. This has been partially offset a slight increase in the estimate of the rate of inflation applied to the costs to the end of the CA.

19 ComReg has confirmed that the ECAS provider continues to implement costs savings and these are welcomed.

20 It should also be noted that the benefits of significant cost savings made during previous reviews continue to apply in the current review. These previous cost savings include:

- A revised hourly rate payable to the specialist call-centre company[5];
- More cost efficient charging relating to facilities management[6];
- Improved means of forecasting operator hours[7];
- Improved means of monitoring “Not ready” times[8],

21 This Consultation is structured as follows:

Section 3: Background provides a brief history of the ECAS and its establishment, the responsibilities of the ECAS provider and the role of ComReg; as well as a high-level explanation of how the CHF is determined.

[5] See paragraph 59
[6] See paragraph 126
[7] See paragraph 66
[8] See paragraph 78

Section 4: Reasonable Cost Review 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 5: Relevant Cost Standard discusses the cost standard that ComReg has applied in calculating the CHF.

Section 6: Reasonable Costs is a key section in this review. ComReg provides an overview of each cost category and indicates how a reasonable cost has been derived for that category. However, as would be expected, the commercially sensitive nature[9] of much of the material considered by ComReg in this review means that this section is limited to providing sufficient information to stakeholders for them to understand the issues and make an informed response to this consultation.

Section 7: Volumes concerns a fundamental determinant of the CHF, that of 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 8: Cost Volume Relationship brings together the analysis in Sections 6 and 7 and outlines the inter-relationship between costs and volumes.

Section 9: Draft Determination contains ComReg’s Draft Determination in relation to the CHF

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[9] See ComReg document No. 05/24 “Guidelines on the treatment of confidential Information”

3 Background

ComReg's statutory role

22 Amongst the statutory responsibilities of ComReg with regard to the ECAS is "*to review the maximum CHF that the ECAS provider may charge and thereby to determine the annual CHF*."[10]

23 The purpose of this consultation, which is a key component of ComReg's annual review of the CHF, is to solicit the input of stakeholders to assist ComReg in determining the maximum permitted CHF for the year from 12 February 2014 to 11 February 2015. This CHF is intended to cover the "reasonable costs"[11] incurred by the ECAS provider and, in the future, to ensure that costs it is expected to incur in the coming year are adequately covered, in particular, having regard to the agreed "guaranteed rate of return". ComReg must make its final determination on the maximum permitted CHF by 12 December 2013.

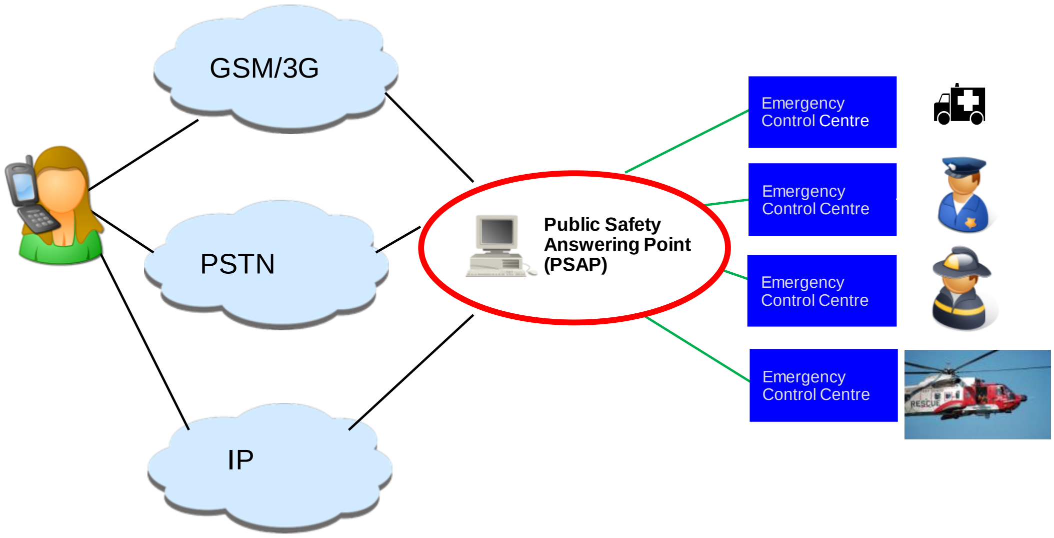
Function and responsibility of ECAS

24 As noted earlier, the ECAS has three PSAPs and two data centres and has been designed and built to meet certain specifications in the CA[12]. These specifications are intended to provide end-users with a reliable, resilient and effective network for the purpose of contacting the emergency services. This configuration has not changed since the ECAS provider commenced operations. The Short Messaging Service ("SMS") service is now fully operational within the ECAS operation and the operating costs for this SMS service are reflected in the In-Life costs and the CSR hours. Volumes associated with contacting the ECAS via SMS remain relatively low and these are included in the total reported call volumes for the ECAS.

[10] Section 58D(1) of the Act of 2002
[11] See paragraph 49
[12] Annex 1 contains a list of the main specifications contained in the CA

25 When an end-user dials 999 or 112 from their telephone (using a fixed, mobile or VoIP service) ECAS takes the call, undertakes a triage to establish the precise nature of the emergency[13] 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 1 Call Flow



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

26 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 also to cater for the loss of capacity of any PSAP in exceptional circumstances.

27 ECAS must perform to an exacting standard. The performance of the ECAS is monitored by ComReg, in accordance with quantitative and qualitative performance metrics set in the CA[14].

Determining the CHF

28 The following is an approximation of the principal cost categories:

- “In Life” costs – broken down as “Pay” and “Non Pay” Costs;
- Annual depreciation/amortisation charge;

[13] 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.
[14] See Annex 1 – ECAS Quality of Service Parameters

- The guaranteed rate of return and applicable rebate(s) ;
- Transfers to the applicable sinking fund ; and
- Any over or under-recovery of costs in a prior period.

29 "In Life" costs are subject to the reasonable cost review as set out in Section 49.

30 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.

31 Call volumes are estimated by actual previous trends, external influences such as remediation programmes, and projected changes in relevant external factors (principally population[15]).

[15] http://www.cso.ie/en/media/csoie/releasespublications/documents/population/current/poppro.pdf

4 Reasonable Cost Review

Background

32 Section 58(D)(3)(a) of the Act of 2002 provides that:

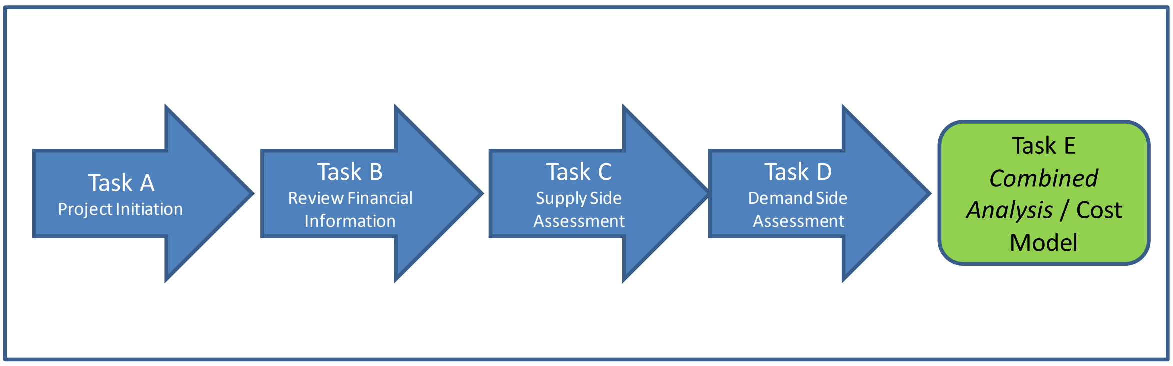
"… the Commission shall have regard to … the need for the ECAS provider to cover the reasonable costs likely to be incurred by it in operating the service and, in particular, to recover a guaranteed rate of return ….".

33 The specifications for the ECAS have been set down by the Minister through the CA. ComReg is not a party to the CA and the specifications for the ECAS in the CA are not being reviewed by ComReg. However, these specifications indirectly affect the costs incurred by the ECAS provider and are therefore part of and relevant to the reasonable costs review. The specific network architecture of the ECAS network is also outside of the scope of this review. However, in reviewing the costs ComReg has sought to ensure that the cost of the assets purchased are reasonable for the successful operation of the ECAS. As noted in the 2012-2013 and 2013-2014 CHF reviews the requirement to have three PSAPs is contained within the CA.

Approach

34 ComReg's approach to its review of the maximum permitted CHF is presented diagrammatically below. This follows the approach adopted by ComReg in the 2013-2014 CHF review. Although there is some overlap between the five tasks (A-E) a broadly sequential structure is followed:

Figure 2 Project approach



Task A: Project initiation

35 Under the Act of 2002, and as a consequence of when the CA was entered into, ComReg must make its determination on the CHF by 12 December of each year. In order to do this, ComReg has already engaged extensively with the ECAS provider and gathered the necessary financial data concerning incurred costs and relevant associated information. The incurred costs are then subject to review by ComReg in order to determine their reasonableness. ComReg has reviewed incurred costs annually since the ECAS operation went live on 14 July 2010 ("Go-Live") and has also monitored the evolution of call volumes. In particular ComReg has reviewed the costs incurred by the ECAS provider from April 2012 (the commencement of its financial year) to June 2013 (the most recent set of quarterly management accounts). The evolution of call volumes has been considered since the "Go-Live" date in order to determine a trend.

36 An assessment is also made of the ECAS provider's annual forecast costs of running the ECAS to the end of the contract and the likely future trend in call volumes.

Task B: Review financial information

37 ComReg has carried out a detailed review of the full set of financial information furnished by the ECAS provider. This review will be ongoing up to the final determination on the maximum permitted CHF on 12 December 2013. The financial information used by ComReg in the review includes or will include the annual audited financial statements to March 2013 and unaudited quarterly management accounts to September 2013. These unaudited quarterly management accounts are supported by detailed financial analysis and explanations. ComReg does not expect any material change in the financial information between now and 12 December 2013.

38 This review does not entail an assessment of the set-up costs of the ECAS as ComReg reviewed these in 2010. In accordance with the terms of the CA certain capital expenditure (c. €✂) was approved by ComReg during the period under review. This capital expenditure was mainly on computer hardware and the updating of certain software to ensure the ongoing integrity of the ECAS operation.

Task C: Supply side assessment

39 ComReg has carried out a "supply-side" assessment which entails a root-and-branch review of all aspects of the delivery of ECAS by the ECAS provider in order to determine whether its costs are reasonable. The supply-side assessment included the following:

- an operational review of the ECAS function provided by the ECAS provider;
- a review of the ECAS staff resources;
- an understanding of the engineering and technical elements of the ECAS; and
- a review of any third-party costs.

40 This part of the review required a series of site visits and inspections to each of the PSAPs, the data centres and the monitoring centre, in order to obtain a greater understanding of how the service is organised and to understand the technical and business infrastructure that is used. ComReg undertook interviews and discussions with senior representatives of the ECAS provider, reviewed the available documentation, and assessed the reasonable "in-life" costs actually incurred.

Task D: Demand side assessment

41 ComReg has conducted a "demand side" assessment as part of its review. This involves examining historic volumes of emergency calls made in the State and reviewing the economic and demographic data relevant to the number of emergency calls being made. This has been done in order to produce a reasonable estimate of likely future emergency call volumes. In overall terms, there has been a significant decline in call volumes since the CA was signed with the Minister. Since late 2011 the rate of decline in call volumes has slowed down. However, there can be significant variations in call volumes from month to month.

42 ComReg will continue to monitor call volumes closely and will continue to publish details of the trend on a periodic basis as part of its regular quality of service review of the main performance metrics applied to the ECAS.

Task E: Combined analysis / cost model

43 This task involved combining the findings from the supply and demand side assessments (tasks C and D) in order to review the reasonableness of the CHF from the cost model.

5 Relevant Cost Standard

Overview

44 In the 2012-2013 and 2013-2014 CHF reviews ComReg assessed which cost standards could be used by ComReg to ensure that only the relevant and reasonable costs of the ECAS operation of the ECAS provider are recovered through the CHF.

45 Under Section 58 (D) (3) (a) of the Act of 2002 ComReg is required to have regard to:

> *(a) the need for the ECAS provider to cover the reasonable costs likely to be incurred by it in operating the service and in particular, to recover a guaranteed rate of return for providing the ECAS …"*

46 Commonly used cost standards include Historical Cost Accounting Information ("HCA"), Current Cost Accounting Information ("CCA"), and Long Run Incremental Costs ("LRIC"). When considering which cost standard is appropriate for determining reasonable costs ComReg considers the following matters to be relevant:

- The CHF is not paid directly by the consumer, but by the consumer's call origination network;
- The originating network has no control over the CHF;
- Calls to the ECAS are a social service rather than a normal product; and
- The ECAS is a standalone service provided on behalf of the State.

47 In making its final determination in the 2013-2014 CHF review ComReg concluded that:

- a hybrid costing methodology, based on HCA accounts (appropriately adjusted for reasonableness) and reflecting forward-looking cost and volume data is the most appropriate way to determine the CHF;
- avoidable cost is the appropriate cost principle to be used in assessing the CHF, combined with a hybrid cost model;
- the costs associated with the provision of the ECAS are:

- Direct costs
- Indirect costs
- Fixed costs
- Variable costs

~~48~~ For the purposes of the 2014-2015 CHF review ComReg considers that the above methodologies (as used in the 2012-2013 and 2013-2014 CHF reviews) remain appropriate and has used them for the current review.

Q. 1	Do you agree or disagree that it is appropriate to continue to apply the above methodologies for the 2014-2015 CHF review? Please provide detailed reasoning and calculations for your views.

6 Reasonable Costs

Overview

49 Under the CA a "reasonable cost" is defined as *"… the reasonable costs that ComReg will take into account in its reviews of the Call Handling Fee and will include the Section 58D Fund Allocation, 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. In assessing whether costs are reasonable, ComReg will have regard to similar operations in other countries and international best practice. Incurred costs which are clearly unnecessary, excessive or avoidable may not be deemed reasonable, and may have an impact on the Call Handling Fee for the period following any review"*

50 This section discusses the various actual costs incurred by the ECAS provider in running the ECAS operation during 2012-2013 and which impact upon the CHF review of 2014-2015. Within each category, ComReg provides an overview of how the cost is derived and whether or not it considers it to be reasonable. Due to the commercial sensitivity and confidential nature of much of the data, many of the specific details cannot be published in this consultation.

51 While there may have been some variation in the level of costs incurred (both upwards and downwards) there has not been any major change in the nature or classification of the costs incurred since the last review.

52 ComReg examined all costs incurred in detail and, wherever it appeared that a cost might not be reasonable, queried this with the ECAS provider.

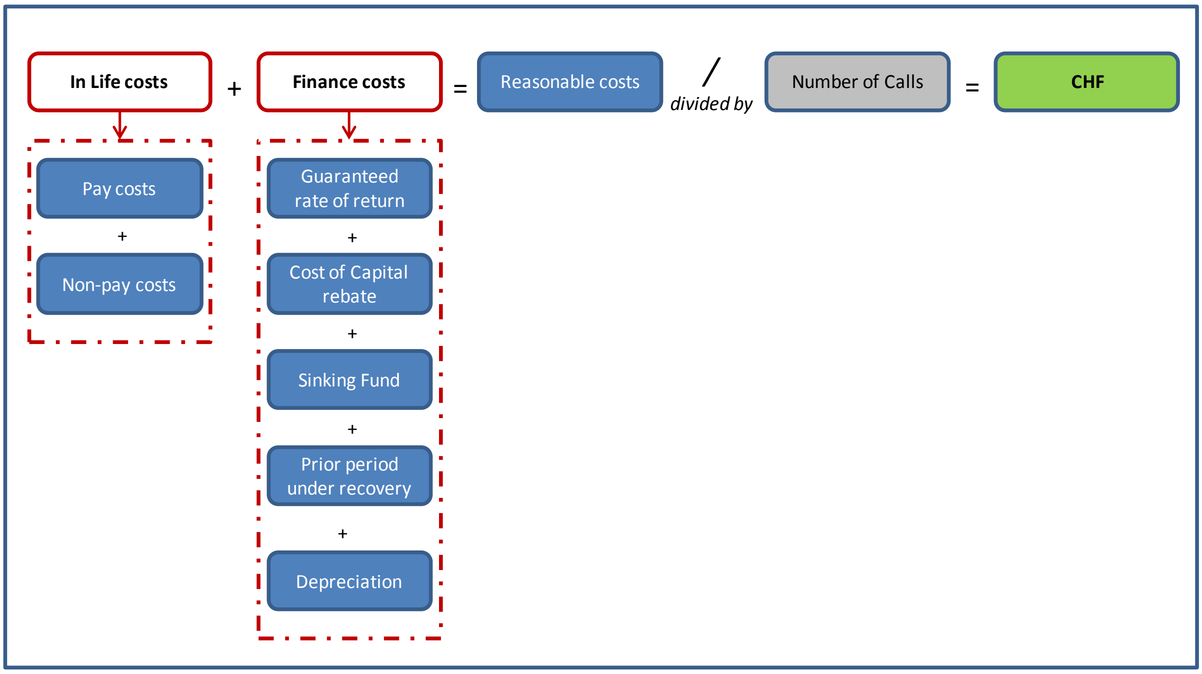
53 As a result, ComReg's preliminary view is that it considers that the costs incurred by the ECAS provider are reasonable and therefore no costs are being disallowed as being "unreasonable" as part of this review. This preliminary finding is supported by the following:

- An extensive review of "In Life" costs was carried out as part of the 2012-2013 and 2013-2014 CHF reviews. These reviews found certain costs to be unreasonable at those times. As a result, the ECAS provider has either implemented tighter procedures, applied new principles, or provided further justification to ComReg for how it accounts for certain costs. Because of these remediations, the likelihood that these costs would be found to be unreasonable again as part of the 2014-2015 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.

54 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 below.

Figure 3 – cost categories relating to the CHF



55 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.

56 Many of the changes to costs reflected in the 2012-2013 CHF review were once-off adjustments and are not replicable in either the 2013-2014 or 2014-2015 CHF reviews. For example as a result of the 2012-2013 CHF review the ECAS provider implemented changes to how it forecast the number of CSR hours required. This was a once-off adjustment to its forecasting procedures. This resulted in cost savings in subsequent years, the benefits of which continue and are reflected in the 2014-2015 CHF. The cost savings achieved as part of the 2013-2014 CHF review also continue into and are reflected in the 2014-2015 CHF.

57 For the 2014-2015 CHF review ComReg has undertaken a detailed examination of the costs incurred by the ECAS provider up to 30 June 2013. It compared the underlying cost categories to those incurred in the 2013-2014 CHF review. ComReg also compared the forecast expenditure used to inform the 2013-2014 CHF against the actual expenditure.

~~58~~ The relative percentage allocations of reasonable costs for the purposes of the 2014 – 2015 CHF review are as follows:

Figure 4 (a)– Percentages of reasonable costs for 2014 – 2015 CHF review

✂

Figure 4 (b) – Percentages of reasonable costs for 2013 – 2014 CHF review

✂

Figure 5 Total reasonable costs split (cost stack)

Cost category	2014/2015	2013/2014
	€	€
Pay costs[16]	✂	✂
Non-pay costs[17]	✂	✂
Depreciation/amortisation[18]	2,300,000	2,200,000
Guaranteed return[19]	750,000	750,000
Cost of capital rebate[20]	✂[21]	✂
Sinking Fund[22]	250,000	250,000
Prior Period[23]	✂	✂
Total Costs	✂	✂

Q. 2 Figure 5 represents the basis of the cost stack for the determination of the CHF for 2013-2014. Please provide any comments on whether the cost categories should remain the same for the determination of the CHF for 2014-2015, including detailed reasoning for your answer.

Analysis of Cost Categories

Pay Costs

59 Pay costs comprise CSR costs and the ECAS provider'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 €✂ and their relative percentages are represented as follows:

[16] See Section 59
[17] See Section 123
[18] See Section 130
[19] See Section 130
[20] See Section 146
[21] ✂
[22] See Section 148
[23] See Section 153

Figure 6 (a) – Pay cost split for 2014 – 2015 CHF review

✂

Figure 4 (b) – Percentages of reasonable costs for 2013 – 2014 CHF review

✂

60 Certain elements of the pay costs have varied since the commencement of the ECAS operation. This was mainly due to a reduction in the number of CSR hours required (through the implementation of changes to forecasting), the refinement of the organisational structure and a more steady state being achieved with respect to specialist engineering requirements. ComReg considers that, while there may be slight fluctuations due to operational requirements, these have reached a relatively steady state.

CSR costs

61 CSR costs relate to the staffing of the three PSAPs. There are approximately 70 CSRs comprising part-time and full-time staff. This cost forms a substantial part of the in-life costs of the ECAS operation and is relatively unchanged when compared to the CSR costs reflected in the 2013-2014 CHF review. The estimated annual cost of CSRs is €✂based on ComReg's estimate of approximately 67,000 operator hours plus some additional costs associated with the provision of lead operators and seconded administrative staff. The hourly rate of €28.07 was imposed by ComReg as a result of the 2012-2013 CHF review (see paragraph 90).

62 The ECAS provider 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 provider 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.

63 Once the ECAS provider 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. None are employed directly by the ECAS provider.

64 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 provider, but still require an effective response are traffic related accidents and weather related incidents.
    - Severe weather (both hot and cold) has been noted to increase call volumes. The extended period of warm weather in July 2013 saw an increase in call volumes of 1.9% when compared to July 2012;
    - A traffic incident, such as a vehicle travelling in the wrong direction on a motorway, can cause a sudden spike in call volumes.

65 During site visits conducted as part of the 2014-2015 CHF review ComReg observed the ECAS provider's response to incidents causing a "service alert". Due to the nature of such incidents, a higher than predicted number of calls is routed through to the ECAS. This necessitates all CSRs to be available to handle the increased call volumes. The FLM may also begin to directly handle calls. In certain circumstances consideration may be given to bringing in additional CSRs who are available on a standby roster. Incidents observed by ComReg were resolved without additional resources being summoned.

66 Following the 2012-2013 CHF review the ECAS provider made amendments to how it calculates the required CSR hours. The changes it implemented reduced the number of CSR hours required without affecting the quality of service. These changes were implemented on a gradual basis to ensure that the integrity of the operation of the PSAPs and the adherence to the performance metrics was not compromised.

67 More minor refinements were made as part of the 2013-2014 CHF review.

68 No further refinements or recommendations on how CSRs are rostered were made during the 2014-2015 CHF review.

69 The specialist call-centre company charges the ECAS provider 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.

70 ComReg’s preliminary view of the hourly rate is represented by the following Figure 7. Much of the information used to determine the hourly rate is commercially sensitive. However, basic pay, including bonus and employers PRSI constitutes approximately 45% of the hourly rate.

Figure 7– specialist call-centre company hourly rate cost categories

Cost component	Hourly rate
Basic salary – c. €20,000	€10.50
Bonus – c. 10%	€1.05
Employers PRSI – 10.75%	€1.24
	€12.79
Unavailable hours	
(Training, absences, holidays, churn)	Commercially sensitive
Specific overheads *(rosters , call-centre coordinators)*	Commercially sensitive
Cost before general overhead	Commercially sensitive
General overhead[24]	Commercially sensitive
Sub total	*Commercially sensitive*
Rate of return	Commercially sensitive
ComReg's preliminary view of a reasonable hourly rate	**€28.07**

71 In the 2012-2013 CHF review ComReg determined that an hourly rate of €28.07 should be applied from June 2011 to the maximum permitted CHF for the period 2012-2013. Having assessed the inputs into this hourly rate ComReg remains of the preliminary view that €28.07 continues to be a reasonable hourly rate for the 2014-2015 CHF. ComReg has considered each of the components applied to determine the hourly rate and is of the preliminary view that they are both still relevant and their cost is reasonable.

Basic pay, including bonus and employers PRSI

72 CSRs are paid a standard industry salary and are further incentivised by bonus payments which are payable upon achieving and maintaining quality of service. ComReg is of the preliminary view that this salary of *circa* €10.50 per hour, plus a performance related bonus is reasonable. From discussions with the ECAS provider, it is understood that most CSRs achieve their bonus targets. This is objectively supported by the fact that the ECAS operation itself consistently adheres to the performance metrics as set out in the CA.

[24] See also paragraph 124

73 ComReg notes that a recent internet advertisement for part-time CSRs by the specialist call-centre company indicates a salary of c. €20,000 per annum and a potential bonus of €2,000. It should be noted that while full-time staff work approximately 220 days per annum, the ECAS operation must be staffed 365 days per annum and the hourly rate reflects this requirement.

An allowance for "unavailable hours"

74 In order to ensure that an adequate number of CSRs are present at all times, an allowance is made for unavailable hours. Unavailable hours arise due to:

- Training;
- Annual leave; and
- Breaks and absences.

75 While no significant changes have been noted in these from the 2013-2014 CHF review each of these unavailable categories is discussed further below.

Training

76 Three types of training are provided to CSRs:

- Approximately three weeks of induction training for new CSRs by the specialist call centre-company. This is primarily due to the unique nature of the role and the need for strict adherence to the required procedures - which is not typical of retail type call-centres;
- More formal training whereby CSRs are allocated training days away from the PSAP (usually done by the specialist call-centre company); and
- Continuous on-the-job training, such as one-to-one coaching, feedback on monitored calls and implementation of new procedures (usually done by the ECAS provider).

77 The level of training conducted was queried by ComReg as part of the 2013-2014 CHF review as it had been considered, that there was an element of duplication between training provided by the ECAS provider and that provided by the specialist call-centre company. As part of that review ComReg disallowed this duplication of costs. This duplication has been corrected by the ECAS provider and no training costs are considered unreasonable as part of this 2014-2015 CHF review.

78 Furthermore, following recommendations by ComReg the ECAS provider has implemented a more robust monitoring process for “Not Ready”[25] time which would include time allotted to training activities. While significant time and effort is put into training by the ECAS provider (as reflected by its continual adherence to performance targets as set out in the CA) this does not affect the calculation of the hourly rate but is applicable to the number of hours requested of the specialist call-centre company by the ECAS provider.

Annual leave

79 CSRs are entitled to standard annual leave.

Breaks and absence

80 Breaks can be considered as standard and non standard. Standard breaks generally relate to meal times. Non-standard breaks tend to relate to the need for CSRs to take time away from phones following a stressful call.

81 A 2011 IBEC report reported that absences in call-centres are running at approximately 3.67%. ComReg has no evidence of any change to this underlying level of absenteeism in the call-centre industry for 2013. Having reviewed the level of absence across the three PSAPs, the current levels appear to be within the normal activity of absenteeism. Staff absence management policies are operated by the call-centre coordinators (see paragraph 84).

Churn

82 Churn relates to the staff replacement costs generated when CSRs resign their positions and take up alternative employment. During the review the level of churn was consistent with that included in the calculation of the hourly rate payable to the specialist call-centre company.

Specific Overheads associated with providing ECAS service

83 There are certain overheads included in the allowable costs of the ECAS service. Many of these are pay related. The nature of these overheads has not changed since the 2013-2014 CHF review.

[25] Not Ready includes – training, stress breaks and other times when a CSR might be unable to answer calls. Each of these time categories is tracked separately and is transparent to ComReg.

84 In each of the PSAPs, a “call-centre coordinator” is employed by the specialist call-centre company to manage the day-to-day rostering and HR related activities of the CSRs; and are distinct from management provided by the ECAS provider. Having reviewed the roles of the call-centre coordinators ComReg is of the preliminary view that it is appropriate to include their cost in the hourly rate payable to the specialist call-centre company. ComReg previously reviewed this role in the 2012-2013 CHF review.

General overheads of the specialist call-centre company

85 ComReg is of the preliminary view that the general overheads of the specialist call-centre company (including such items as senior management time, specialist risk insurance, in-house IT, the provision of payroll services, property related costs and an allocation to the annual audit fee) which are included in the suggested hourly rate for remain at the same level as allowed in the 2013-2014 CHF review.

Rate of return

86 The hourly rate payable to the specialist call-centre company includes a rate of return. ComReg is of the preliminary view that it is appropriate to include a reasonable rate of return in the hourly rate payable to the specialist call-centre company. If the ECAS provider had not outsourced the requirement for CSRs, it would have had to develop its own internal CSR expertise which would have generated additional costs to develop the necessary skills for the training and management of CSRs. These costs would have been reflected in the CHF. More generally, a rate of return exists on the hourly rate payable to the specialist call-centre company in the same way as for any pricing structure of a supplier of goods and services. This associated cost is allowable, so long as it is reasonable — and ComReg is satisfied that it is.

Change in CSR numbers

87 Since the ECAS went live there have been changes to the ECAS staffing arrangements, principally those required in the 2012-2013 CHF review.

88 As the number of calls has fallen (often driven by remediation programmes of various operators), there has been a further decrease in the number of CSRs required to deliver the service. In addition, the ECAS provider has been optimising the application of its various performance metrics in the Erlang model. This has also resulted in a fall in the projected number of hours required by the ECAS provider. However, there is not a direct one-to-one relationship between the fall in call volumes and the fall in chargeable hours, as ECAS is required to maintain certain minimum levels of staffing in order to adhere to performance metrics under the CA. This is discussed further in Section 8.

89 No further changes were proposed to CSR numbers as part of this review.

Suggested hourly rate per CSR

90 ComReg is of the preliminary view that a reasonable hourly rate chargeable per PSAP CSR should be no more than €28.07 for inclusion in the CHF of 2014-2015. As mentioned previously, this hourly rate includes the wage costs of each CSR such as the basic salary, a performance-related bonus and employers PRSI. The hourly rate also includes other specific cost components such as training, holidays, CSR churn, absence and an allocation for general overheads. It is based on a 37.5 hour week. Overtime rates are not applied as CSRs can generally choose which shift they wish to work.

Q. 3 Do you agree or disagree with ComReg's preliminary view that €28.07 is a reasonable hourly rate payable to the specialist call centre company, based on what costs have been allowed and what costs have been disallowed? Please provide detailed reasoning and calculations for your views.

Adherence to standards

91 ComReg has reviewed how the ECAS provider has determined the number of CSRs it requires to maintain the service and how the performance metrics have been applied.

92 In accordance with ComReg's statutory obligation to monitor the ECAS provider quality of service[26] ComReg has noted that the ECAS provider is consistently achieving (and at times surpassing) the minimum set of standards set out in the CA.

[26] Section 58(G) of the Act of 2002

93 ComReg is of the preliminary view that further reductions to the number of CSRs being rostered could have a negative impact on the ECAS provider's adherence to standards and would have only a slight impact on the CHF. Given the critical nature of the service any minimal benefit from reducing the number of CSR hours required may be outweighed by the increased risk arising from increased call-answering times.

94 ComReg would caution that an ECAS operation, because of its critical nature cannot be run like a fully commercialised call-centre operation. Resource planning must ensure that the performance metrics as set out in the CA are met. ComReg has, in each of its CHF reviews, reviewed the adherence to the performance metrics and, where it considered these could be achieved more effectively, without endangering the service levels, it requested the ECAS provider to make these changes and these were implemented. ComReg currently does not foresee any further changes of significance in this area.

95 It should also be noted that utilisation rates tend to be lower in emergency services than many other sectors:

- Emergency services - 40%
- Public sector healthcare providers - 55% to 65%
- Financial services - 70% to 80%

96 ComReg does not set in the performance metrics as these are contained within the CA. In its previous reviews, ComReg assessed the methodology whereby these metrics were implemented in the Erlang model and recommended some changes to be implemented in a controlled fashion. The changes were implemented by the ECAS provider without any dis-improvement in the quality of the service. ComReg currently does not foresee any further changes of significance in this area.

97 ComReg, however, notes that the ECAS provider has as part of its continual assessment of its procedures reduced the average allowable call handling time from 36 seconds to 33 seconds in 2012-2013 and that it is under this revised metric that it now reports to the DCENR.

98 Given the foregoing observations, ComReg is of the preliminary view that a reasonable cost review relating to CSR costs will consist of two principal components:

- Hourly rate paid to specialist call-centre company; and
- Number of CSR hours required to maintain service.

Hourly rate paid to the specialist call centre-company

99 ComReg has reviewed the hourly rate currently being charged by the specialist call-centre company and is of the preliminary view that an hourly rate of no more than €28.07 remains reasonable. ComReg is also of the preliminary view that this hourly rate should be reflected in the CHF that is determined for 2014-2015.

Number of CSR hours required to meet the service levels

100 No further reduction in the number of required CSR hours is considered feasible without a possible negative impact on the adherence to those standards set out in the CA.

101 Reduction in the number of required hours should not be seen purely in a financial context so it is vital to ensure that citizens are not put at risk by a sudden reduction in CSR numbers which could drive unacceptably long call-answering times. ComReg suggests, that where possible CSR reductions are indicated, a prudent and measured approach should be adopted and the effect on quality metrics carefully monitored.

BT Payroll Costs

102 The ECAS provider's own pay costs are approximately €✂per annum. The costs incurred are marginally lower than those forecast as part of the 2013-2014 CHF review.

103 The ECAS provider's own pay costs (i.e. other than the CSRs) can be categorised broadly as follows:

- 100% dedicated to ECAS;
- Engineering and technical support charged as required to ECAS; and
- Other support services charged as required to ECAS.

100% dedicated to ECAS

104 The staffing of the ECAS operation (all BT staff) is currently as follows:

- One Head of Operations;
- Six first line managers ("FLMs");
- Three support engineers; and
- Two support/administration staff.

105 This organisational structure was in place for the calculation of the 2013-2014 CHF and follows a number of refinements implemented since the ECAS provider commenced operations in 2011-2012. Since the 2013-2014 CHF review no material changes have been made to this organisational structure. ComReg has reviewed that structure as part of the 2014-2015 CHF review and is of the preliminary view that further refinements are not possible without adversely affecting the quality of service.

Head of Operations

106 The Head of Operations has overall responsibility for the successful operation of ECAS and is responsible for developing the forecast volumes used in the resourcing model to determine the number of CSR hours required from the specialist call-centre company. The Head of Operations also liaises with all relevant external stakeholders and suppliers such as the emergency services and the third-party suppliers. This is a key strategic role within the ECAS.

FLMs

107 The ECAS provider employs six FLMs to manage the three PSAPs. FLMs manage the day-to-day operational activities of the CSRs and their roles include monitoring call quality, on the job training, and handling calls when required.

108 While the FLMs do not cover the PSAPs 24 hours per day, their shifts are organised so that there is a presence in most PSAPS or to provide cover across all three centres between approximately 6am and 12am. As call volumes tend to be lower between 12am and 6am, the ECAS provider considers that it is not necessary to have an FLM present. However, within each site a CSR is designated a "lead operator" and is trained to handle certain contingencies if required. This lead operator can also cover for the FLMs when they are not present.

109 The role of the FLMs is considered to be distinct from that of the call-centre coordinators supplied by the specialist call-centre company and not suitable for amalgamation. FLMs monitor call quality and the service level quality while call-centre coordinators are responsible for maintaining local rosters and dealing with human resource issues as they arise. ComReg has reviewed the current number of FLMs and is of the preliminary view that the ratio of FLMs to CSRs appears reasonable (c1:12). ComReg will continue to monitor this ratio to ensure that it is in line with best practice.

Support engineers

110 Three support engineers are involved in the day-to-day maintenance of the ECAS IT and telecommunications infrastructure across the three PSAPs and two data centres. While these three engineers are dedicated to the ECAS operation, allocation of time to ECAS is on a case-by-case basis.

111 Where more specialist engineering requirements are needed, these are sourced from the wider BT organisation. This is discussed further in paragraph 114. Support engineers are vital to the continuing delivery of the ECAS and, especially given the geographical spread of the PSAPs, the number of engineers appears reasonable. However, ComReg continues to monitor the requirement in its annual reviews of the CHF.

Administration/Support staff

112 The support staff is principally concerned with the preparation of reports and general administration of the ECAS operation but are also trained to handle calls if there is a need to do so. Support staff also monitor call quality, although to a lesser extent than the FLMs. This provides an additional layer of quality checking and further assures overall service quality.

113 ComReg is of the preliminary view that the current organisational structure relating to the staff who are 100% dedicated to ECAS is appropriate for the delivery of the ECAS and the associated costs are reasonable.

Engineering and technical support charged as required to ECAS

114 As part of the ongoing operation and maintenance of the ECAS, the ECAS provider has made a number of changes to or has been planning changes to the ECAS network.

115 Some of these changes have required specialist engineering skills from within the wider engineering team of the ECAS provider. Others have been completed by its dedicated engineering team. Where specialist engineers are required they charge their time to ECAS on a case-by-case basis. While all changes are pre-approved by the ECAS management, some changes can be considered reactive and others proactive. ComReg has observed that the level of engineering and technical support required has reduced over time. Indeed, as the ECAS has become more established, this is to be expected. ComReg will continue to monitor this activity and ensure that the necessary processes are maintained to track the time spent on the required tasks.

116 The technical integrity of ECAS network is monitored within the wider BT group. If a technical issue arises it is initially prioritised above all other BT technical issues. After an initial assessment technical resources are allocated as appropriate, varying from immediate remediation to planned maintenance.

117 ComReg, as part of its review, analysed the manner in which specialist engineers and technicians provide services to the ECAS operation. Given the critical nature of the ECAS operation the ECAS provider prioritises any issues (routine or otherwise) which may arise within the engineering / technical aspects of the service over other services offered within the wider BT group.

118 ComReg's preliminary view is that these costs are reasonable for the 2014-2015 CHF review.

Other support functions charged as required to ECAS

119 The ECAS provider also records the costs of other support functions including but not limited to:

- Executive management (overall ownership of the ECAS operation drawing expertise from across the entire BT organisation);
- Finance (preparation of quarterly and annual financial statements and supplying financial data and reports to ComReg);
- Legal (reviewing contracts, updating LIRO's and correspondence);
- Regulatory (liaising with ComReg and other stakeholders); and
- Procurement (maintenance of existing and procurement of any new third party contracts).

120 ComReg has reviewed the nature of this support and its associated cost and considers them to be reasonable. ComReg notes that these costs have been reducing over time.

121 Almost all pay costs are allocated to the ECAS either directly (CSR / 100% dedicated to ECAS) or indirectly using a cost driver (engineering support / other support).

122 However, there remain a few pay costs for which a cost driver is not applied (c. 3%). The principal pay cost associated with this is the monitoring of the ECAS network. These pay costs are charged to the ECAS using a percentage mark-up based on the cost of staff directly or indirectly charged to the ECAS. ComReg continues to monitor the nature and level of the costs incurred and ComReg's preliminary view, for the 2014-2015 CHF review, is that these costs are reasonable.

Non-pay costs

123 The ECAS provider's non-pay costs are approximately €✂per annum. Its non-pay costs primarily consist of:

- Premises;
- Backhaul;
- Network maintenance;
- Other non-pay costs.

Premises

124 The ECAS provider leases premises housing two of its PSAPs. It utilises space within the specialist call-centre company's own premises for its third PSAP. The associated costs of this third PSAP are contained within the hourly rate it pays the specialist call-centre company (included General Overhead within Figure 7).

125 In addition to the leasing of the premises, the ECAS provider also pays the associated local authority rates and electricity charges. One PSAP also hosts a data centre thereby requiring higher electricity charges for the running of servers and air-conditioning units.

126 There are also facilities management charges for the two PSAPs leased by the ECAS. As part of the 2013-2014 CHF review ComReg disallowed certain charges for facilities management. ComReg notes that the ECAS provider has amended its reporting of facilities management to address previous concerns. Having reviewed the costs as part of the 2014-2015 CHF review, ComReg is of the preliminary view that the costs are reasonable.

Backhaul

127 Due to the need to adhere to the performance metrics as set out in the CA the ECAS backhaul is supplied by both BT and third-party suppliers (in order to maintain resilience). BT has also provided space for a second ECAS data centre (in its main facility). The costs of backhaul and the data centre have been found to be reasonable when compared to prevailing market rates. BT has continued to negotiate improved rates for some of its third-party backhaul. ComReg's preliminary view is that it considers these costs to be reasonable.

Network maintenance

128 The ECAS provider has a number of support contracts in place, primarily of an IT/technical nature. The principal support contract is with the supplier of the platform underpinning the ECAS network which is a critical component to the successful delivery of the ECAS. The ECAS provider has further support contracts in place with ancillary IT companies, which it considers are necessary for the successful running of the ECAS operation. Many of the support contracts which were being put in place at the set-up stage were also reviewed by ComReg in 2009-2010 and found to be reasonable. No amendments have been made to these contracts in the intervening period. However, additional costs of c. €✂per annum are now being incurred in order to support the ongoing operation and maintenance of the new SMS functionality as well as subscriptions to the National Digital Radio Service. ComReg's preliminary view is that these costs are reasonable.

Other non-pay costs

129 Other non-pay costs include an allocation of accommodation, computing and telecommunications for "engineer support" and "other support" associated with the ECAS and the cost of the annual audit. These costs are allocated on the basis of cost drivers or are directly attributable. ComReg has reviewed the nature of these costs and considers them to be reasonable.

Depreciation / Amortisation

130 Another significant cost is the annual depreciation and amortisation charge. The estimated annual cost of the depreciation and amortisation charge is €2.3m. This is based on an initial investment of approximately €11m, which is being written-off over the term of the CA (i.e. five years) together with additional depreciation on capital expenditure incurred in the intervening period.

131 During the set-up phase the ECAS provider invested in fixed assets in deploying its ECAS network. This fixed asset investment consisted of both time spent by the ECAS provider's personnel (i.e. technical, management, procurement) in designing and building the new operation and in its purchase of the required fixed assets. These included the IT and telecommunications infrastructure required to operate the ECAS and the costs of fitting out the three PSAPs. As discussed in paragraph 124, the ECAS provider does not own the premises from which it runs the ECAS PSAPs which are leased from third parties.

132 The set-up costs were incurred once by the ECAS provider and accordingly, they need only be reviewed once. The set-up costs were comprehensively examined by ComReg, during the course of its 2011-2012 CHF review, which determined the amount of capital expenditure and the associated depreciation/amortisation charges to be included in calculating the maximum CHF (based on a five year asset life as set out in the CA). ComReg does not believe that it would be logical or efficient to review this issue again. There have not been any material changes made to the capitalised costs of the ECAS during this review period. Accordingly, ComReg is satisfied that there is no reasonable basis for reviewing the set-up costs of the ECAS again in this review

133 Some of the fixed assets may have asset lives greater than five years, but under the terms of the CA they are to be written off in a straight-line method over its duration.

134 Certain assets may need to be replaced over the term of the CA (e.g. switches, servers and other equipment) and these would also be written off over the remaining term of the CA. In such cases, the ECAS provider must inform ComReg if it envisages spending in excess of €100k on fixed assets in any twelve month period.

135 As the assets purchased for ECAS are inherently linked to its operation it is likely that any apparent residual value of any assets would be nil. At the end of the CA, should an alternative ECAS provider 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.

136 In 2012-2013 the ECAS provider, in accordance with the terms of the CA, requested permission from ComReg to incur capital expenditure of *circa* €✂ for certain systems upgrades. These requested upgrades arose due to the ECAS provider's continuous review of the ECAS operations and were considered necessary to ensure the ongoing integrity of the solution. This capital expenditure included:

- Professional fees from its external suppliers for integrating and testing the upgrades;
- Purchase of associated licences;
- Purchase of associated hardware; and
- The ECAS provider's own engineering time for planning and implementing the requested changes.

137 The ECAS provider presented a detailed explanation and budget to ComReg of the upgrades required and ComReg considered the request and costs to be reasonable. Should there by a cost overrun in the implementation of the upgrades ComReg reserves the right to assess the overrun for reasonableness.

138 In accordance with the terms of the CA this capital investment will be depreciated over the remaining life of the CA.

139 As noted in above (in paragraph 135), it is likely that the residual value of any assets at the end of the CA would be nil.

140 It is not open to ComReg to amend any residual value of fixed assets or amend their asset lives, because it has no power to do so under the Act and because it is not a party to the CA.

Guaranteed rate of return

141 Under the CA, the ECAS provider 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

142 The guaranteed rate of return also covers any interest costs associated with finance agreements that the ECAS provider may have entered into in relation to its ECAS operation.

143 Based on an investment of approximately €11m the guaranteed rate of return is approximately €750k per annum to the end of the CA.

Cost of capital rebate

144 When the ECAS provider 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 provider to recover the cost of operating the ECAS at this volume of calls.

145 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 provider 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.

146 However, as the ECAS provider under-recovered its costs in 2010-2011 — as a result of the initial CHF being set too low – the ECAS provider 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.

147 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 CA[27].

Sinking fund

148 Under the CA, the ECAS provider 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 DCENR and is not under the control of ComReg or the ECAS provider.

149 While the ultimate use of the sinking fund is determined by the DCENR it could be used to cover the costs of additional investment in new technologies required at a late stage in the five year CA, which could otherwise cause a spike in the CHF. It could also be used to cover any exit costs which BT may incur, should it be required to provide a parallel service along the lines of that provided by Eircom when it was exiting from the provision of the ECAS service during September and October 2010.

150 ComReg must, in any case, include the prescribed value of the sinking fund in its calculation of the CHF each year for the duration of the CA.

[27] ✂

Prior period under-recovery

151 As previously noted, the ECAS provider developed and designed its ECAS operation to handle approximately 4.8m calls per annum. As the ECAS provider is entitled to recover the reasonable costs of running the ECAS, the CHF was set in order to allow this recovery (on the basis of 4.8m number of calls multiplied by the CHF). However, after the system went live, it transpired that the number of calls being handled was significantly lower than that originally envisaged and that the ECAS provider would not recover its costs. This under-recovery is being recovered through the CHF over the remaining life of the CA. As actual call volumes from 2011 to 2013 have differed slightly from forecast call volumes, the amount of the under-recovery has fluctuated. With the proposed change to the CHF, ComReg is of the preliminary view that the remaining balance of the under-recovery is such that an over-recovery will not occur by the end of the CA.

152 In calculating the CHF, forecasts for reasonable costs and call volumes to the end of the CA have been used. For regulatory and commercial certainty, while there may be an under or over-recovery in any particular period, the CHF is calculated to remain as stable as possible over the term of the CA.

153 The prior period under-recovery to 30 June 2013 was c. ✂ (30 June 2012 c. ✂). The cause of this can be summarised as follows:

Figure 8 – Prior period under-recovery

Forecast income & expenditure to 12 February 2014	€[28]
Est. revenues from Go Live to 12 February 2014	✂
Costs	
Pay costs	✂
Non pay costs	✂
Depreciation / amortisation	**8,100,000**
Sinking Fund	**900,000**
Guaranteed rate of return	**2,700,000**
Cost of capital rebate	✂
Total Costs	✂
Prior period under-recovery	✂

[28] For ease of reference values have been rounded

This under-recovery is reflected in the proposed CHF of €✂ for 2014-2015.

Figure 9 – projected income and expenditure to end of the CA[29]

	2014/15	2015 – five months	Total
Forecast Volumes @ €✂	2.6m	1m	
Revenue €	8,200,000	3,300,000	11,500,000
Costs €			
Pay costs	✂	✂	✂
Non pay costs	✂	✂	✂
Depreciation	2,300,000	1,000,000	3,300,000
Sinking Fund	250,000	100,000	350,000
GRR	750,000	300,000	1,050,000
Rebate[30]	-	-	-
Total Costs	✂	✂	✂
Recovery	✂	✂	✂

154 Over the remaining life of the CA the amount of the prior period under-recovery (c. ✂) is reflected in the CHF and reduces to nil.

155 This under-recovery must be recovered between 14 February 2014 and the end of the CA (15 July 2015).

Monitoring costs

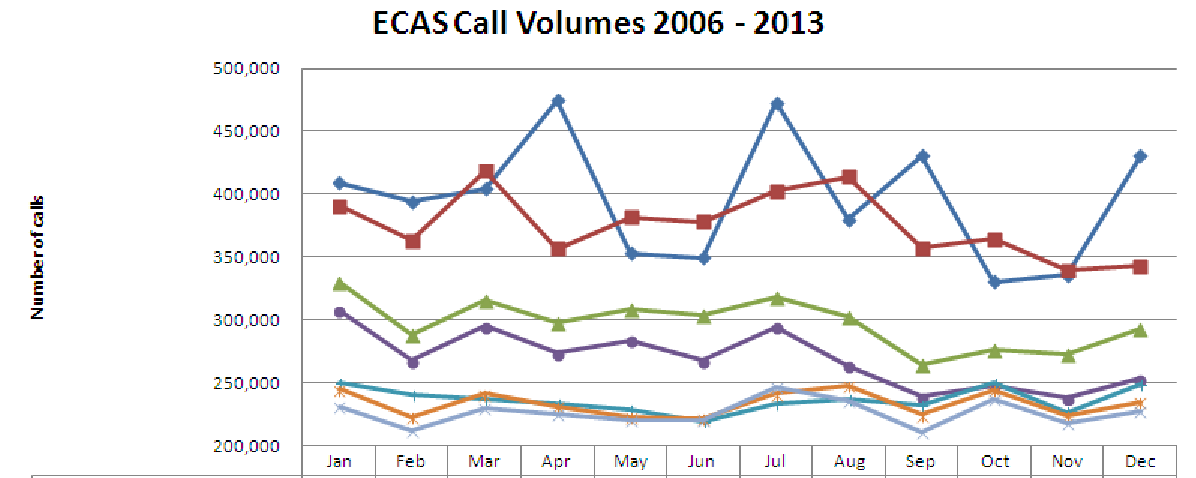
156 ComReg can confirm that its monitoring costs[31] associated with the carrying out of this review are not, at this time, being recovered through the CHF.

[29] For ease of reference values have been rounded
[30] ✂
[31] Section 58 (E) of the Act of 2002

7 Volumes

157 When the ECAS provider entered the CA with the Minister, the annualised tendered volume of emergency calls was 4.8million. Since that time, there has been a marked and steady decline in the volume of emergency calls and this is illustrated in Figure 10 below: (note that the period October 2013 – December 2013 is an estimated value):

Figure 10: ECAS monthly call volumes 2006 - 2013



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2007	409,052	394,129	404,538	474,552	353,267	349,213	472,799	379,910	430,488	330,215	335,755	430,870
2008	390,528	363,614	418,544	356,502	381,583	378,189	402,386	413,990	357,307	364,727	339,686	343,168
2009	329,840	288,784	315,932	297,997	309,050	304,137	318,362	303,082	264,283	276,866	272,543	293,348
2010	307,283	267,718	294,817	273,357	283,936	267,424	294,444	263,570	238,958	247,691	237,907	253,158
2011	249,480	240,324	236,994	232,753	228,079	218,909	232,872	237,187	231,706	249,962	226,757	248,781
2012	245,126	222,636	241,281	231,510	222,724	221,589	241,584	247,813	224,782	244,059	224,342	234,960
2013 (Forecast Oct to Dec)	230,372	212,139	230,024	225,073	219,687	220,439	246,054	236,147	210,313	236,737	217,612	227,911

158 The decline in call volumes has had, and is likely to continue to have, a material impact on the CHF. This is because the associated reasonable costs incurred by the ECAS provider must be spread over a narrower spread of calls (than envisaged when the CA was signed), which resulted in a higher unit cost up to 2012-2013. Whilst some of the operating costs of the service are flexible and demand responsive (i.e. the required number of PSAPs CSRs) many of the other costs are essentially fixed costs, and are not affected by the call volume, but in the specification of the CA.

159 ComReg publishes periodic information notices on ECAS call volumes. Figure 11 below (which is taken from ComReg Information Notice No. 13/73) shows the differences in monthly call volumes between January and June 2012 and 2013. During the 2012-2013 CHF review ComReg had predicted that calls would decline by 2.0% per annum.

Figure 11: Call volumes January – June 2013 v January to June 2012

	2013	2012	Difference	% Difference
January	230,372	245,126	-14,754	-6.0%
February	212,139	222,636	-10,497	-4.7%
March	230,024	241,281	-11,257	-4.7%
April	225,073	231,510	-6,437	-2.8%
May	219,687	222,724	-3,037	-1.4%
June	220,439	221,589	-1,150	-0.5%
January to June Total	**1,337,734**	**1,384,866**	**-47,132**	**-3.3%**

160 Much of the decline from the Go Live date to late 2010 related to a reduction in false or error calls (also known as "ghost calls"). Since 2009 Eircom has undertaken a significant remediation of its network infrastructure which specifically addresses those lines that generate high volumes of "ghost calls".[32] This has resulted in a significant and sustained reduction in emergency call volumes. Other call sources such as so-called "pocket calls"[33] from mobile handsets have also been declining.

161 ComReg has calculated its forecast call volumes based on the following:

- Call volumes from the Go Live date to September 2013; and
- Estimated call volumes for October 2013 to December 2013

162 The call volumes from the Go Live date to September 2013 are the call volumes recorded by the ECAS provider.

163 Estimated call volumes for September 2013 to December 2013 are also incorporated into the calculation of call volumes to allow for call volumes up to the date when ComReg must make its determination (i.e. 12 December 2013).

164 ComReg has considered a number of possible scenarios for determining the annual rate of change in call volumes, outlined below. The determination of the rate of change in call volumes has a direct impact upon the proposed CHF and this is described further in Section 8.

[32] These calls are generated by a fault in the telephone line itself or with the customer's equipment.
[33] See http://www.eena.org/ressource/static/files/2011_03_15_3.1.2.fc_v1.0.pdf

- ComReg does not consider that a forecasted rate of decline of 0% in call volumes is appropriate based on the published call volume data and forecast volumes to year end. Nevertheless, an annual reduction in call volumes of 0% would yield a CHF for 2014-2015 at €2.93 (unchanged from prior review).

- ComReg does not consider that a forecasted rate of decline of 2.0% in call volumes is appropriate. This estimated reduction in calls was per ComReg Document No. 13/02 for the period from January 2012 to November 2012 and after the removal of a higher than normal number of hoax calls[34]. However, it does not reflect the rate of decline observed from January to June 2013 (c. 3.3% decline). An assumed annual reduction in call volumes of 2.0% would result in a CHF for 2014-2015 at €3.03.

- ComReg considers that a forecasted rate of decline of 3.0% is appropriate. This represents the annual rate of decline from October 2012 (when ComReg Document No. 12/112 was issued) to September 2013. It reflects an annual rate of decline from October 2012 to September 2013. ComReg considers that this rate of decline also reflects the ongoing work by Eircom to repair noisy lines as they arise.

165 However, if further remediation programmes are commenced which significantly reduce call volumes, this will have a direct impact on the CHF. Therefore, 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 remediation programmes which they are currently undertaking, or are about to undertake, which could impact upon ECAS call volumes. Such information can be treated confidentially if appropriate.

166 The impact of call volumes on the recovery of the reasonable costs is discussed further in Section 8.

Q. 4 Please outline any remediation programme, planned for the short to medium term (1 to 2 years), which may significantly affect the forecasted volume of emergency calls.

[34] See ComReg Document No. 13/02 – page 13 / 14

8 Cost Volume Relationship

167 The CHF is calculated by dividing the reasonable costs incurred by the annual number of emergency calls.

168 When assessing the forecast annual costs, ComReg has had regard to the costs incurred to date, and whether it considers these to be reasonable or unreasonable. ComReg has reviewed the assumptions made by the ECAS provider on how it considers future costs will evolve. Where necessary, ComReg has proposed amendments to certain items not considered to be reasonable.

169 In designing its ECAS operation, the ECAS provider planned its network and operations based on the information provided in the tender with DCENR (which used historical Eircom call volumes of 4.8m calls per annum). Principally because of measures taken by operators to remediate “ghost calls”, the annual number of calls dropped to about 2.6m in 2011 (about a 46% decrease). The rate of decline has slowed significantly since 2011 with actual call volumes for the 6 months to June 2013 3.3% lower than the corresponding period in 2012. ComReg in Document No. 13/02 predicted an annual rate of decline of 2.0%.

170 Significant cost savings were been made during the 2012-2013 CHF review, with more modest ones in the 2013-2014 CHF review, and the cost pattern is now in a relatively steady state. However, this has been offset by the significant decline in the number of calls over which the total cost base is to be recovered. A 1% change in call volumes would not necessarily bring about a corresponding 1% change in the CHF. This is because the reasonable costs of the ECAS are divided by emergency call volumes to arrive at the CHF. If volumes are less, this must tend to increase the CHF given that the majority of the costs (even the in-life costs) of the ECAS are fixed. These fixed costs, as observed previously in this consultation, are:

- Minimum number of CSRs required;
- Organisational structure solely dedicated to ECAS;
- Recurring costs such as support staff (quarterly financial reporting, specialist engineering and technical services);
- Recurring costs such as the leasing of premises, service contracts and backhaul;
- Annual depreciation/amortisation charge;

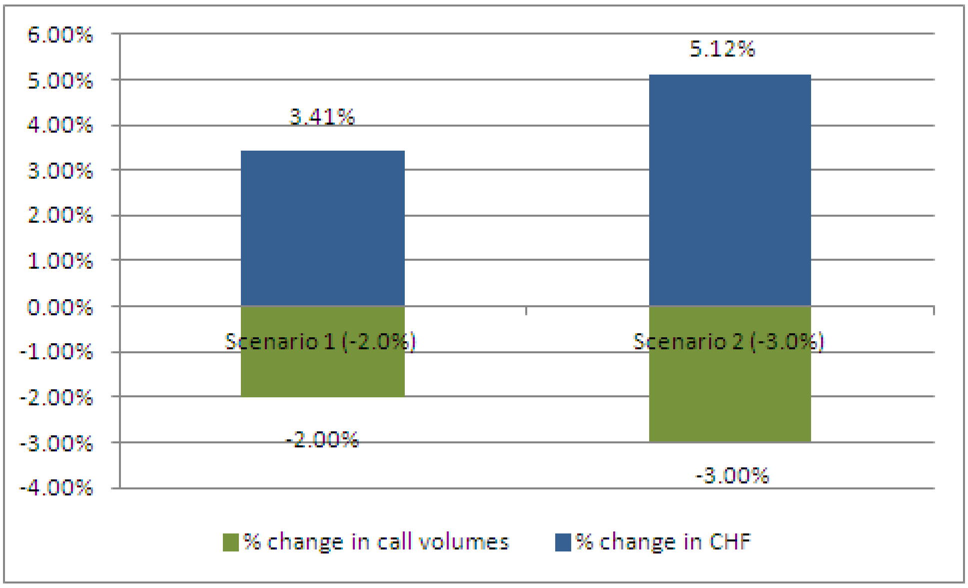
- Contribution to the sinking fund; and
- Guaranteed return.

Figure 12 –Sensitivity analysis of changing call volumes on the future CHF[35]

Scenario list	% change in call volumes	Revised CHF	% change in CHF
Base (0%)	0.00%	2.93	0.00%
Scenario 1 (-2.0%)	-2.00%	3.03	3.41%
Scenario 2 (-3.0%)	-3.00%	3.08	5.12%

171 This is represented graphically as follows:

Figure 13 – Cost volume relationship



172 ComReg has not adjusted call volumes to reflect the possible elimination of spurious calls without Calling Line Identity ("CLI") because no such decision has been made to amend this practice. Spurious calls without CLI have been a feature of ECAS call volumes for many years and this has only become a matter for discussion very recently. It must be emphasised that is not open to ComReg to disregard spurious calls without CLI because it has no power to do so under the Act of 2002 and because it is not a party to the CA.

[35] Note that the change in the incremental cost associated with CSR hours is considered immaterial and is not reflected above. This graph is for illustrative purposes only.

173 If such calls be eliminated the CHF under the current CA would be likely to increase. This is because the cost base, albeit slightly lower because of less CSR hours required, would have to be recovered over a lower number of calls.

174 This issue was also raised and is currently being discussed within the ECAS Forum recently established by ComReg. Regardless of the cause and effect of false and spurious calls, the ECAS is required to handle each call as effectively as possible. It stands to reason that removing these would achieve greater effectiveness but it is beyond ComReg's remit to do this. However, ComReg is of the view that ECAS would be better served with fewer "false calls", so that only genuine emergency calls are received and handled.

Q. 5 Do you agree or disagree with the proposed forecast of the call volume decline rate of 3.0% per annum? Please provide detailed reasoning and calculations for your views.

Q. 6 Are there any other matters which you wish to raise as part of this review? Please provide detailed reasoning and calculations (where appropriate) for your views.

9 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. 13/96 and Commission Document No. 13/96a;
- Having duly taken account of the responses received to Commission Document No. 13/96 and Commission Document No. 13/96a; 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 12 February 2014 to 11 February 2015, 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 €**3.08**.

2.3 This determination is effective from the date of the publication of this response to consultation and determination.

Q. 7 Do you agree or disagree with the wording of ComReg's Draft Determination? If not, please state your detailed reasoning.

10 Regulatory Impact Assessment

175 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.

11 Submitting Comments

176 The consultation period will run from 21 October 2013 to 15 November 2013, during which ComReg welcomes written comments. It is requested that comments be cross-referenced to the relevant question numbers from this document.

177 Having analysed and considered the comments received, ComReg will publish a response to consultation and decision in January 2014.

178 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.

12 Statutory Basis

179 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

Annex: 1 ECAS Quality of service parameters

Parameter	Definition	Threshold & measurement frequency	Definition
ECAS availability	Availability = U/(U+D) U= Uptime, the total time when the ECAS service answers Emergency Calls presented to the ECAS Switches and routes the call to the appropriate Emergency Service centres. D= Downtime, which shall include loss of service for all reasons other than Force Majeure Events	99.999% on a 12 month rolling period Monthly	Availability = U/D where: U is total time when the ECAS service answers Emergency Calls presented to the ECAS switches and routes the call to the appropriate Emergency Service. D = Downtime, which shall include loss of service for all reasons other than Force Majeure events.
Average speed of answer	The average time period between an Emergency Call being presented to the ECAS switch and the call being answered by an Operator	1.3 sec One Day Hourly & daily	The average time period between an Emergency Call being presented to the ECAs switch and the call being answered by an Operator.
PAC 5	The percentage of calls answered within 5 seconds	97.5% One Day Hourly & daily	The percentage of calls answered within 5 seconds
Accessibility Index (Hit rate)	Percentage of quarter hours where 85% of calls are answered within 5 seconds. Ignoring calls abandoned within 5 seconds	85% one day Quarter hours & daily	Percentage of quarter hours where 85% of calls are answered within 5 seconds.
Customer or Emergency Service complaints	Customer or Emergency Service Complaints for which ECAS is wholly or partially responsible	2 per month or 1 for every 200,000 calls Monthly	Customer or Emergency Service complaints for which ECAS is wholly or partially responsible.
Standards certification	a) Information security management ISO 17799 and ISO 27001 b) Business continuity BS 25999-1 and BS 25999-2 (when issued) c) Building standard d) ISO 9001:2000	Annual Certificate Inspection Annually	a) Information security management ISO 7799 and ISO 27001: b) Business continuity BS 25999-1 and BS 25999-2 (when issued) c) Buildings standard d) ISO9001:2000
Average call handling time	The average length of time taken from when a call is answered by the Operator until Monitoring ceases	33 seconds One Day Hourly & daily	The average length of time taken from when a call is answered by the Operator until monitoring ceases.
Average call routing time	The average length of time taken from when a call is answered by the Operator until	Less than 15 seconds for 90% of routed calls. One	The average length of time taken when a call is answered by the Operator

Parameter	Definition	Threshold & measurement frequency	Definition
	a call to the Emergency Services is initiated. Abandoned calls are omitted.	Day Hourly & daily	until a call to the Emergency Service is initiated.
Average call abandon rate	The percentage of total calls presented to the ECAS switch that terminate prior to answer by the Operator for whatever reason.	< 12% One Day Hourly & daily	The percentage of total calls presented to the ECAS switch that terminate prior to answer by the Operator for whatever reason.
Call handling accuracy	Percentage of calls handled correctly according to the call handling process in five areas:- • call opening • process • call closure • call control behaviours • compliance	99% Monthly Random sample of 50 calls per ECAS provider Centre per month	Percentage of calls handled correctly in line with the call handling process in five areas: Call Opening, process, call closure, call control behaviours, compliance.

Questions

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