



Commission for
Communications Regulation

Emergency Call Answering Services

Call Handling Fee review 2016-2017

Consultation and Draft Determination

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Additional Information

All responses to this consultation should be clearly marked :- “Submissions to ComReg 15/113”, and sent by post, facsimile or email, or submitted on-line at www.comreg.ie (current consultations), to arrive on or before 24 November 2015, 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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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, calling the emergency services is done by dialling 999 or 112, and these calls are initially received by the Emergency Call Answering Service (“ECAS”).
- 2 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.
- 3 In accordance with relevant Irish legislation, emergency calls are currently free of charge to the caller¹ 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 ComReg is required² to annually review the maximum CHF that may be charged by the ECAS operator.
- 6 In February 2015, having concluded its annual review, ComReg set the maximum permitted CHF at €3.82 for the year 12 February 2015 to 11 February 2016. 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

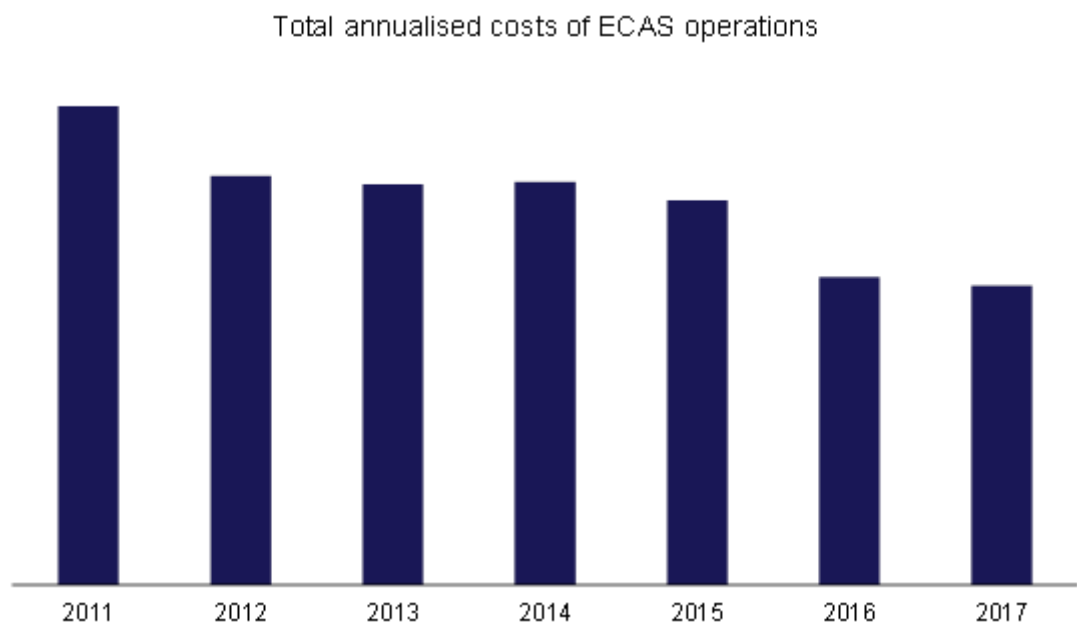
¹ Regulation 5 of the European Communities (Electronic Networks and Services) (Universal Service and Users’ Rights) Regulations 2011

² Section 58(D)(i) of the Communications Regulation Act, 2002, as amended (“the Act of 2002”)

³ ComReg Document No. 14/109

- 7 Once again, ComReg is consulting on the maximum chargeable CHF, in this case for the year February 2016 to February 2017 and seeks the views of Authorised Undertakings on relevant matters through this consultation. There will be one further review of the CHF under the current CA for the period February 2017 to July 2017, but this is not included within the current consultation.
- 8 The CHF charged for calls to the ECAS pays for the sunk capital investment and ECAS annual running costs. These costs are relatively stable year on year and hence the CHF is 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). Therefore assuming a common cause for reducing call volumes, operator costs ought to remain relatively stable as volumes reduce.
- 9 The cost base (excluding prior period under-recoveries) of the ECAS has remained relatively stable. Currently it is c. €~~3~~m per annum. Prior to the extension of the CA by the DCENR it was c. €~~3~~m per annum.

Figure 1: Total annualised cost of ECAS operations⁴



- 10 The main change between the two cost bases has been the allocation of depreciation. Under the CA assets are to be written off over the life of the CA. Prior to extending the CA the assets were heavily depreciated. The remaining net book value of the assets is now depreciated over the extended CA. Other costs remained relatively stable.

⁴ Certain figures are redacted as they are commercially sensitive.

11 Call volumes per operator have largely stabilised in recent years.

Figure 2: Operator share of call volumes



Source: BT

12 However, the number of calls being made to the ECAS has declined appreciably over the past five years. 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 tender for the operation of the ECAS was issued.

13 A key issue for ComReg and its consultants in preparing this consultation has been to determine contributory factors to this fall in call volumes and to provide an empirical forecast for call volumes in the coming year.

14 In the 2015-2016 CHF review and consultation, ComReg was of the preliminary view that calls would decline at a rate of 15.2%. Respondents to the consultation considered a rate of decline of 5% more likely. In the final decision a rate of decline of 11.7% was forecast.

15 While this is discussed further in chapter 4 the actual rate of decline has transpired to be closer to 15.3% for the nine months since January 2015. This has resulted in less calls beyond those forecast being handled for the first nine months of 2015. The resultant under-recovery by the ECAS operator must be made good. This is in addition to previous under-recoveries which are reflected in the current CHF.

16 An analysis of the underlying categories of call types appears to indicate that there has been some stabilisation in the rate of decline in call volumes. ComReg is of the preliminary view that the rate of decline in call volumes between February 2016 and the end of the CA could go as low as 1.75% (based on the rate of decline of 'noisy' calls) and not 11.7% which would apply if the forecast determined during the previous review were to be maintained.⁵ However, ComReg is of the preliminary view that in order to mitigate against unforeseen declines in call volumes it would be prudent to estimate the decline at 3.5% allowing for the current CHF rate to remain unchanged. ComReg has reviewed the calls under four categories:

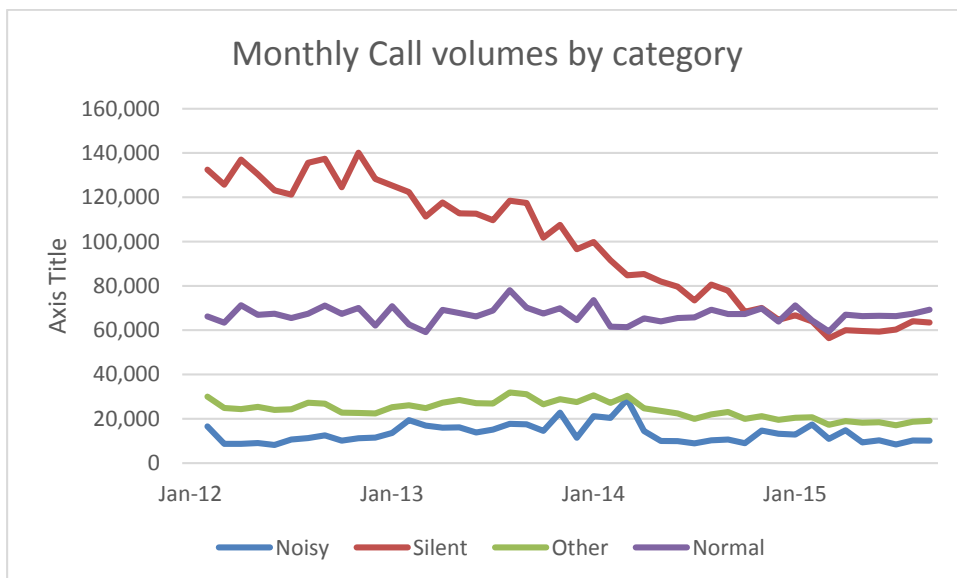
- Normal
- Silent

⁵ ComReg Document No. 15/02

- Noisy
- Other

17 Based on this review ComReg is of the preliminary view that there is a degree of stabilisation of all categories which was not evident during the 2015-2016 review, see Figure 3. Therefore, while the current rate of decline in calls between January and September 2015 compared to the corresponding period in 2014 is c. 15.3% ComReg is of the preliminary view that this rate of decline will not continue as previously forecast and that a significantly lower rate of decline is now more appropriate as evidenced by Figure 3. ComReg looks forward to input from stakeholders on the analysis carried out thus far and welcomes views on the underlying factors and likely future trends in call volumes.

Figure 3: Monthly call volumes by category



18 Because of the structure of the ECAS solution, as required under the terms of the CA, it is not possible to reduce the cost base of the ECAS in direct proportion to the decrease in call volumes. Many of the costs associated with the operation of the ECAS can be considered to be fixed. At a high level these are:

- The requirement to have a minimum number of CSR's present across the ECAS to handle varying volumes of calls as they are presented during the course of any day;
- Various BT support staff. These include those dedicated to the ECAS and those who are required to provide support on a regular basis;

- Costs associated with running the ECAS. These include fixed support contracts with suppliers (I.T. and backhaul), rental agreements for premises and the general day-to-day costs of running a service;
- The Guaranteed Rate of Return and the Sinking Fund as required under the CA.

19 **ComReg proposes that the CHF to be applied from 12 February 2016 to 11 February 2017 should remain at €3.82.**

20 While it is proposed not to amend the CHF there have been some movements within its calculation:

2015-2016 CHF	€3.82
Changes in estimated call volumes ⁶	<€X>
Amount payable to specialist call-centre company ⁷	€X
Pay and non-pay costs ⁸	€X
2016-2017 proposed CHF	€3.82

21 ComReg is required to make its determination by 12 December 2015. If, by 12 December 2015, it appears that the rate of call volume decline will exceed 3.5% ComReg may adjust the CHF accordingly. This is to reduce the risk of there being insufficient funds in the Sinking Fund to meet an under-recovery at the end of the CA. As there is little scope to reduce the running costs of the ECAS any further reductions in call volumes will more than likely result in an increase in the CHF. It should be noted that if the ECAS operator recovers more than its reasonable costs by the end of the CA it is required to pay the excess into the Sinking Fund. ComReg has commissioned Analysys Mason to assist it with its review of the CHF.

22 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.

⁶ Paragraph 41

⁷ Paragraph 45

⁸ Paragraph 49

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 Questions

Section 8: Statutory Basis

Section 9: Questions

Annex: 1: ECAS Quality of service parameters are the parameters that the ECAS must adhere to.

Annex: 2: Reasonable Cost Review is the approach ComReg is undertaking to determine the CHF.

Annex: 3: Relevant Cost Standard is the cost standard ComReg is applying in the calculation of the CHF.

Annex: 4: Analysis of cost categories is a detailed description of the costs incurred by the ECAS.

- 23 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

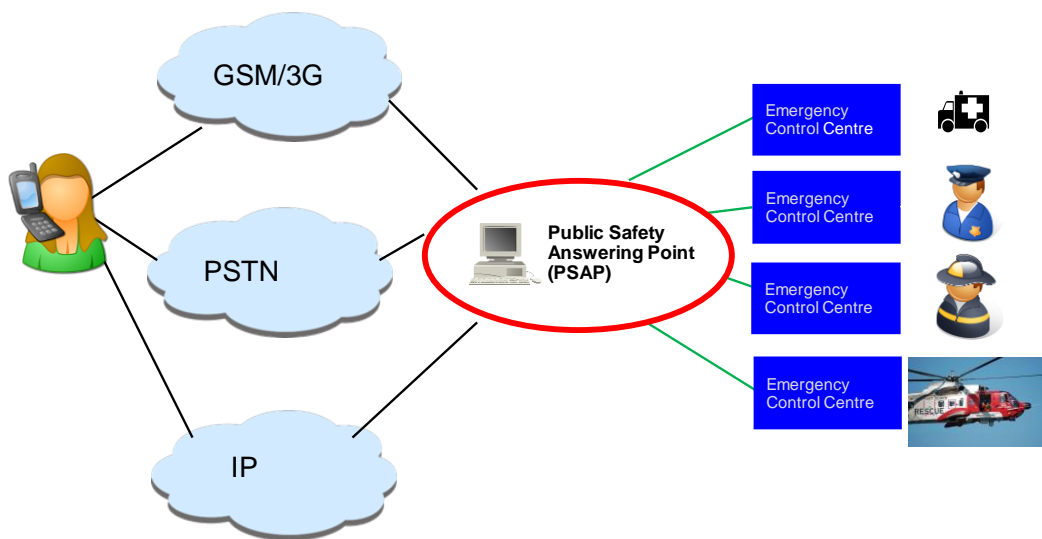
Function and responsibility of ECAS

- 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 CA⁹. 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 operator commenced operations. The Short Messaging Service (“SMS”) service, which facilitates citizens with a disability, 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.
- 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 emergency¹⁰ 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:

⁹ Annex: 1 contains a list of the main specifications contained in the CA

¹⁰ 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.

Figure 4 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 and DCENR, in accordance with quantitative and qualitative performance metrics set in the CA.

Determining the CHF

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

- “In Life” costs – broken down as “Pay¹¹” and “Non Pay¹²” Costs;
- Annual depreciation/amortisation charge¹³;
- The guaranteed rate of return¹⁴ and applicable rebate(s)¹⁵;
- Transfers to the applicable sinking fund¹⁶; and
- Any over or under-recovery of costs in a prior period¹⁷.

¹¹ Paragraph 107

¹² Paragraph 187

¹³ Paragraph 196

¹⁴ Paragraph 203

¹⁵ Paragraph 207

¹⁶ Paragraph 212

¹⁷ Paragraph 51

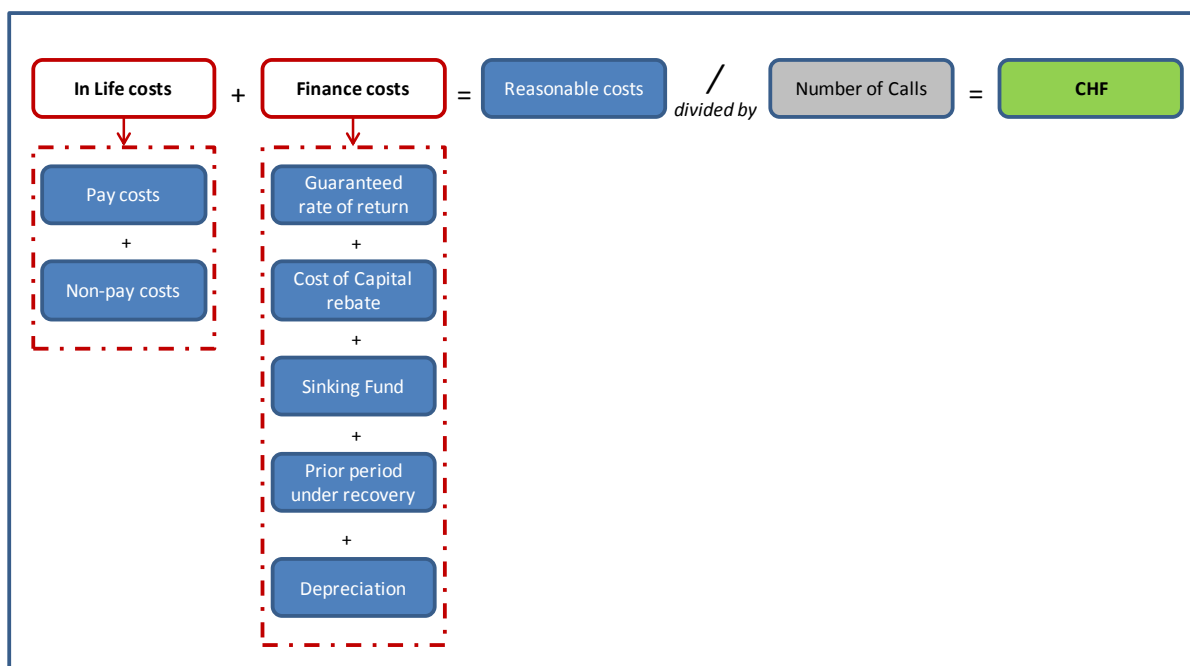
- 29 "In Life" costs are subject to the reasonable cost review as set out in Section 32. The under-recovery of costs is mainly due to the actual rate of call volume decline being significantly different to that forecast.
- 30 The CHF formula is derived by
- Calculating the total costs found to be reasonable 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 changes in the use of technology *vis-à-vis* the use of particular types of handsets, particularly for mobile phones.

3 Reasonable Costs

Overview

- 32 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*”
- 33 This section discusses the main changes in costs between the 2015-2016 CHF review and this review. Annex: 4 discusses, in more detail the actual costs incurred by the ECAS operator in running the ECAS operation during its financial year to 31 March 2015 and the three months to June 2015. 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.
- 34 ComReg’s preliminary view is that the costs incurred by the ECAS operator 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 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 remediations, 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.
- 35 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: 4.

Figure 5 – cost categories relating to the CHF



36 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.

37 As part of the annual CHF review ComReg assesses, in detail, 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.

38 The relative percentage allocations of reasonable costs for the purposes of the CHF review are as follows:

Figure 6 Total Costs



39 The following underlying costs are discussed in more detail as there has been some movement in them compared to the 2015-2016 CHF review:

- Changes in estimated call volumes;
- Amount payable to specialist call-centre company;
- Pay and non-pay costs.

40 While there has 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 or with previous reviews.

Changes in estimated call volumes (decrease in CHF of €X)

41 Two changes are noted in the estimated call volumes which have impacted upon the proposed CHF:

- Volumes from January to September 2015;
- Change in forecast from 11.7% to 3.5%.

Volumes from January to September 2015

42 The actual rate of decline in calls from January to September 2015 is 15.3% compared to a forecast decline of 11.7%. This has resulted in c. X less calls or c. €X less revenues.

Change in forecast from 11.7% to 3.5%

43 While this is discussed in more detail in Section 4, despite the decline noted above ComReg is of the preliminary view that the future rate of decline should be set at 3.5% as opposed to 11.7%. This will result in c.X more calls to the ECAS or c.€X in additional revenues than if the forecast was maintained at 11.7%.

44 As such with the net change in volumes the ECAS is expected to recover €X more than forecast. This is allocated over forecast volumes of c. 2.4m calls from February 2016 to the end of the CA resulting in a decrease of €X in the CHF.

Amount allowed as reasonable in respect of the specialist call-centre company (increase in CHF of €X)

45 The ECAS operator wishes to increase the amount payable to the specialist call-centre company.

46 The ECAS operator's reason for this is that with the improvement in the national economy there has been a significant increase in churn amongst CSRs. While the overall quality of the service has not been impacted upon churn does cause a certain level of disruption:

- New CSRs must be recruited;
- Applicants must be assessed, Garda vetted, interviewed and selected;
- CSRs must receive initial training prior to being allowed handle live calls;

- In the initial stages of handling live calls there is a greater level of supervision required;
- There is an increase in HR and payroll related matters.

47 It should also be noted that in the 2015-2016 CHF review, the hourly rate which would be allowed as reasonable, if claimed, was increased from €28.07 to €29.34 following a request from the ECAS operator. Following a further request from the ECAS operator ComReg is of the preliminary view that a new hourly rate of €~~X~~ would be reasonable if claimed. This is less than ~~X~~% of an increase on the 2015-2016 hourly rate of €29.34.

48 The increase in the allowed hourly rate to €~~X~~ will add c. €~~X~~ to the cost of the ECAS or c. €~~X~~ per call.

Pay and non-pay costs (increase in CHF of €~~X~~)

49 There has been an increase in some pay and non-pay costs and these are across a variety of categories:

- Due to the ongoing enhancements and refinements being undertaken by the ECAS operator it is allocating more time of the Solutions Architect to the ECAS. The same Solutions Architect has been involved in the ECAS for many years encompassing both in-life technological and service issues as well as new developments and enhancements and provides specialist oversight;
- With the ending of the initial five year term of the CA certain support contracts have been reviewed. As a result some additional costs have been incurred to support existing hardware to the end of the seven year term rather than purchasing new hardware;
- Some positions, in particular certain vacant FLM and engineering posts, were filled during the year. There was no loss in standards while the roles were vacant as the positions were covered by Lead Operators, other FLMs and personnel from within BT. However, a more efficient service is considered achievable by filling these positions.

50 The additional cost of the three points above will add c. €~~X~~ to the cost of the ECAS or c. €~~X~~ per call.

Prior period under-recovery

51 As previously noted, the ECAS operator developed and designed its ECAS operation to handle approximately 4.8m calls per annum. Current annual call volumes are c. 1.8m and continue to decline.

52 With the significant decline in call volumes and with the declines being greater than forecast the ECAS operator has under-recovered its reasonable costs¹⁸.

Figure 7: Recovery of Reasonable Costs at the anniversary of the CHF

	Feb 2016	Feb 2015	Feb 2014
	€	€	€
Revenues	✂	✂	✂
Total Costs	✂	✂	✂
Recovery	✂	<✂>	<✂>

53 The recovery of €✂ by February 2016 does not represent an over-recovery of costs rather a contribution towards previous under-recoveries as well as the guaranteed rate of return.

54 Prior to 2014 there was an under-recovery of c. €✂.

55 The cumulative position of the ECAS since 2010 can be summarised as follows:

Figure 8: Cumulative position

	Feb 2016	Feb 2015	Feb 2014
	€	€	€
Cumulative Revenues	✂	✂	✂
Cumulative Total Costs	✂	✂	✂
Recovery	<✂>	<✂>	<✂>

56 Where possible, this under-recovery of €✂ must be made good by the end of the CA.

Figure 9: clearance of under-recovery

	Feb 2017	5 months July 2017	Total
	€	€	€
Forecast volumes	✂	✂	✂
Forecast Revenues	✂	✂	✂
Forecast Total Costs	✂	✂	✂
Recovery	✂	✂	✂

¹⁸ Figures have been rounded. This also reflects the fact that the CHF is set mid-February whereas the quarterly management accounts are at the end of June, September, December and March.

¹⁹ Includes both actual and forecast data

²⁰ Includes both actual and forecast data

²¹ Includes both actual and forecast data

57 It should be noted that if there are further unforeseen declines in call volumes this will place upward pressure on the CHF. If ComReg notes any significant change in call volume declines by 12 December 2015 it will amend the CHF accordingly. If significant declines in call volumes occur post December 2015 resulting in further under-recoveries these can only be addressed through either amending the CHF from February 2017 to July 2017 or compensating the ECAS operator through the use of the Sinking Fund.

Monitoring costs

58 ComReg can confirm that its monitoring costs²² associated with the carrying out of this review are not, at this time, being recovered through the CHF.

²² Section 58 (E) of the Act of 2002

4 Volumes

59 When the ECAS operator entered the CA with the Minister, the annualised tendered volume of emergency calls was 4.8m. Since that time, there has been a marked and steady decline in the volume of emergency calls with a notable decrease in 2014. This is illustrated in Figure 10 below:

Figure 10: ECAS monthly call volumes July 2010 to September 2015



60 As the cost base is considered to be stable (and was designed to handle 4.8m calls) the decline in call volumes has had, and is likely to continue to have, a material impact on the CHF. Many of the costs are considered to be relatively fixed:

- A minimum number of 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.

61 ComReg publishes regular information notices on ECAS call volumes. Figure 11 below (which is taken from ComReg Information Notice No. 15/94) shows the differences in monthly call volumes between January and June 2014 and 2015. During the 2015-2016 CHF review ComReg had predicted that calls would decline by 11.7% per annum.

Figure 11: Call volumes January – June 2015 v January to June 2014

	2015	2014	Difference	% Difference
January	165,315	200,550	-35,235	-17.6%
February	142,903	204,549	-61,646	-30.1%
March	159,547	189,158	-29,611	-15.7%
April	152,329	179,273	-26,944	-15.0%
May	153,251	177,125	-23,874	-13.5%
June	151,004	167,838	-16,834	-10.0%
January to June Total	924,349	1,118,493	-194,144	-17.0%

62 There was a series of severe storms in February 2014 which were not repeated in 2015²³.

63 Call volumes for July to September 2015 compared to July to September 2014 were:

Figure 12: Call volumes July – September 2015 v July – September 2014

	2015	2014	Difference	% Difference
July	158,923	181,811	-22,888	-12.6%
August	160,555	178,575	-18,072	-10.1%
September	142,688	164,332	-21,644	-13.2%
July to September Total	462,166	524,718	-62,552	-12.0%

64 The average rate of decline in call volumes from January 2015 to September 2015 has been 15.3%.

²³ http://www.met.ie/climate-ireland/weather-events/winterstorms13_14.pdf

65 For this review, ComReg has calculated its forecast call volumes based on the following:

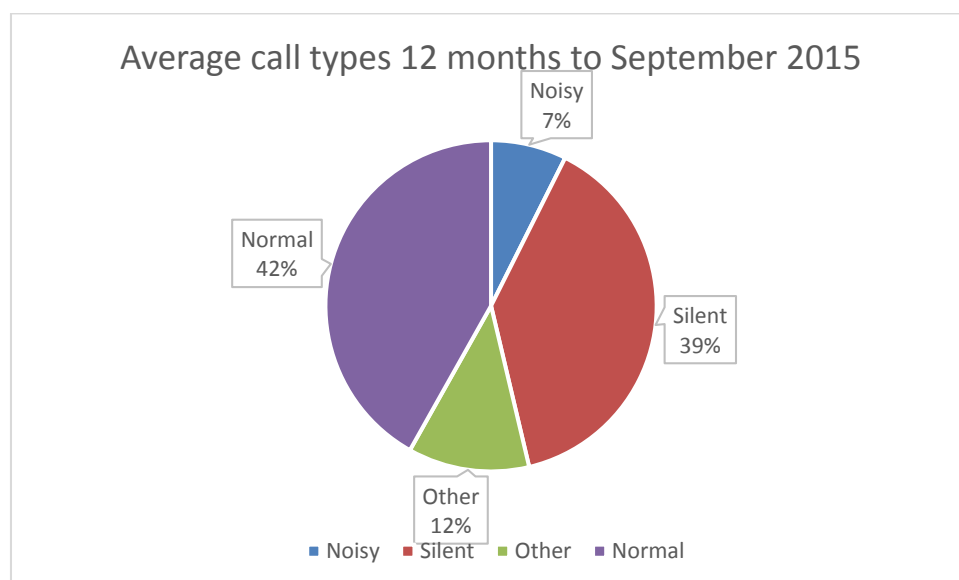
- Actual call volumes from the Go Live date to September 2015; and
- Projected call volumes for October 2015 to December 2015.

66 The call volumes from the Go Live date to September 2015 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;
- Other²⁴ – 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.

67 The average percentage split in these four categories between October 2014 and September 2015 is shown below:

Figure 13: Average call types 12 months to September 2015

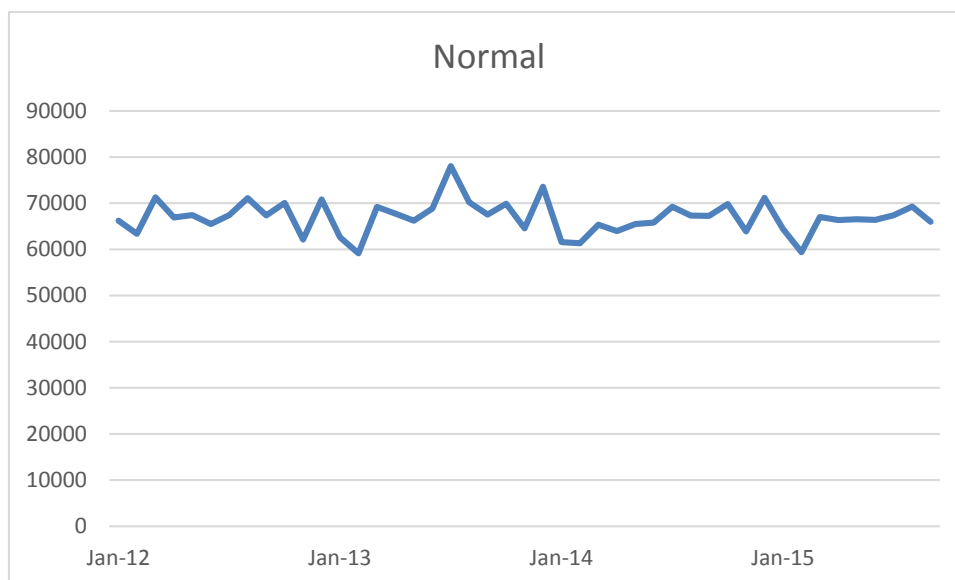


²⁴ The ECAS operator further sub-divides this category

Normal calls

68 The level of normal calls has remained relatively stable between 2012 and 2015 and averages c. 65,000 calls per month.

Figure 14: Normal calls



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

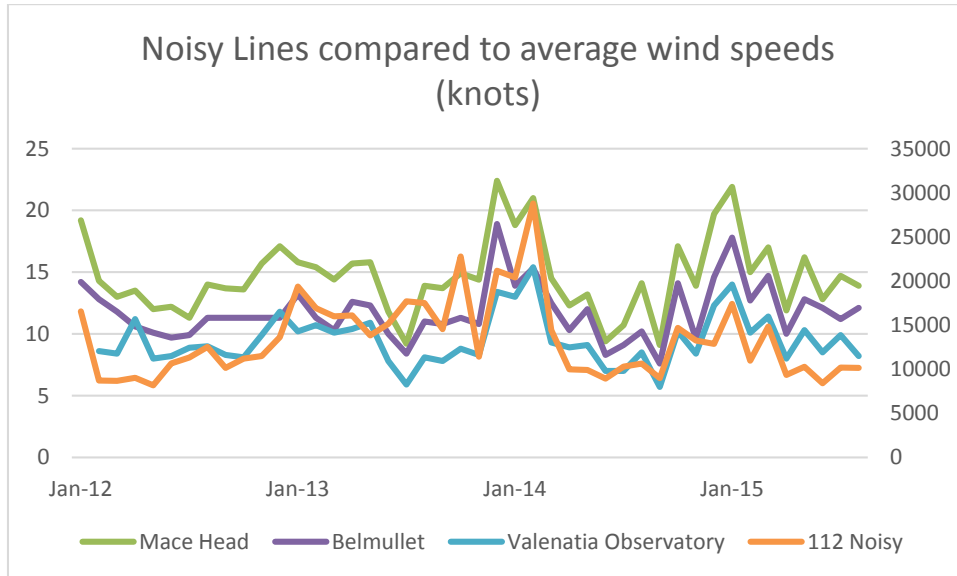
Noisy calls

70 The generation of noisy calls has been noticeable during stormy weather. The following is a comparison of the ECAS operator's assessment of noisy calls vis-à-vis average wind speeds (knots) at three Met Eireann stations²⁵:

- Valentia Observatory;
- Belmullet;
- Mace Head.

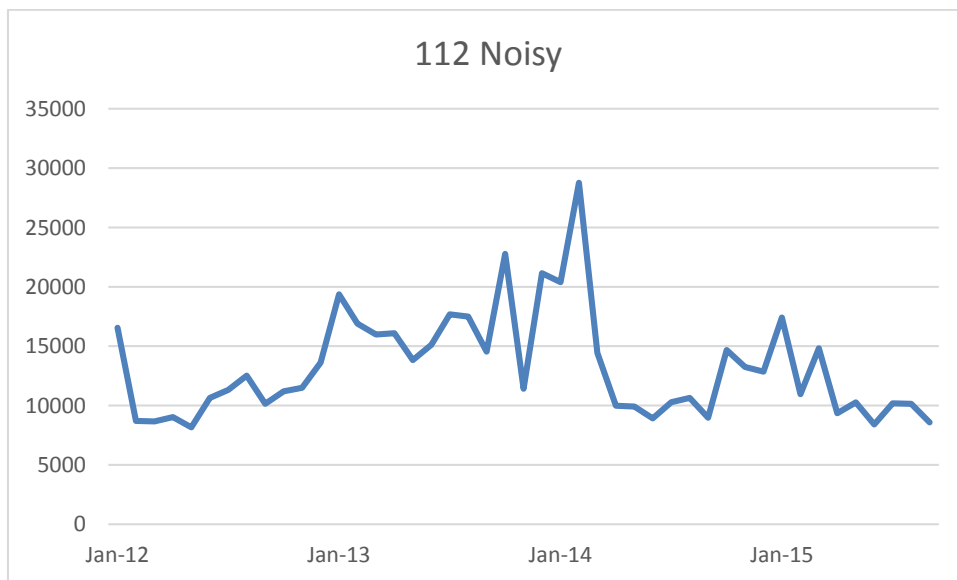
Figure 15: noisy lines vis-à-vis wind speeds

²⁵ Source: <http://www.met.ie/climate-request/>



- 71 The graph shows that between January 2012 and July 2015 there appears to be a significant level of correlation between calls generated by noisy lines and storms.
- 72 Currently, there are approximately 10,000 noisy calls per month. 12 months ago there were approximately 13,500 noisy calls per month. This represents a decline of c.26%. Eir is given a weekly report by the ECAS operator which identifies lines that generate the most 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.

Figure 16: noisy calls

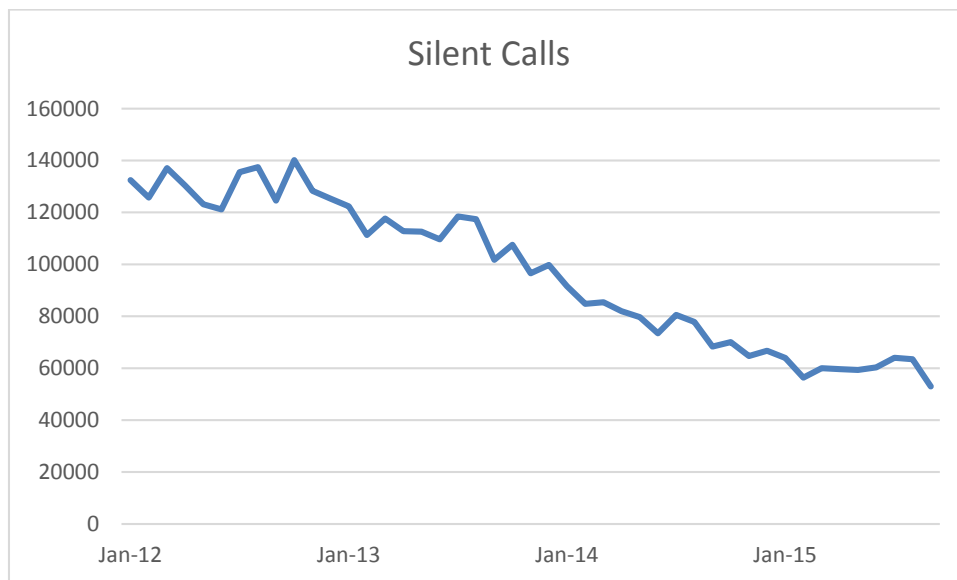


- 73 ComReg is of the preliminary view that the volume of noisy calls will continue to decline at a similar rate (i.e. 26%). As noisy lines represent 7% in total calls this represents c. 1.75% decline in total calls.

Silent calls

- 74 The number of silent calls appears to have broadly stabilised.
- 75 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 17: Silent calls

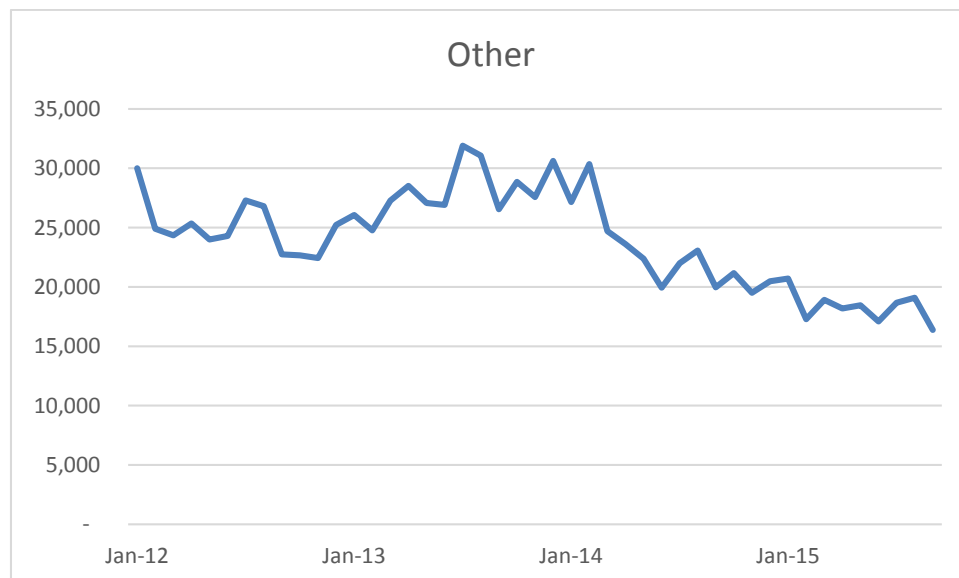


- 76 The decline in silent calls appears to have largely ceased and that a relatively steady state of silent calls has been achieved.
- 77 ComReg is of the preliminary view that the level of silent calls will remain relatively stable to the end of the CA.

Other

78 The number of other calls appears to have stabilised, although there was a slight increase in the rate of decline in September 2015.

Figure 18: Other calls



79 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.

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

Summary

81 Based on the above analysis normal, silent and other calls account for c. 93% 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. ComReg is of the preliminary view that noisy calls will decline at 1.75%.

82 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 outturn:

Figure 19: Actual vs forecast call volumes

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% ²⁶

83 Given the difficulty in forecasting call volumes and also the fact that for three of the last four 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 an additional 1.75% rate of decline should be included in the forecast for 2016-2017 bringing the total rate of decline to 3.5%.

84 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 3.5% per annum? Please provide detailed reasoning and calculations for your views.

²⁶ Average to September 2015

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 12 February 2015 to 11 February 2016, 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 **€3.82**.

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

85 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

- 86 The consultation period will run from 27 October 2015 to 24 November 2015, during which ComReg welcomes written comments. It is requested that comments be cross-referenced to the relevant question numbers from this document.
- 87 Having analysed and considered the comments received, ComReg will publish a response to consultation and decision in January 2016.
- 88 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

- 89 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 3.5% 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 ECAS Quality of service parameters

Parameter	Definition	Threshold & measurement frequency	Definition
ECAS availability	<p>Availability = $U/(U+D)$</p> <p>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.</p> <p>D= Downtime, which shall include loss of service for all reasons other than Force Majeure Events</p>	<p>99.999% on a 12 month rolling period</p> <p>Monthly</p>	<p>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.</p>
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	<p>1.3 sec One Day</p> <p>Hourly & daily</p>	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	<p>97.5% One Day</p> <p>Hourly & daily</p>	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	<p>85% one day</p> <p>Quarter hours & daily</p>	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	<p>2 per month or 1 for every 200,000 calls</p> <p>Monthly</p>	Customer or Emergency Service complaints for which ECAS is wholly or partially responsible.
Standards certification	<p>a) Information security management ISO 17799 and ISO 27001</p> <p>b) Business continuity BS 25999-1 and BS 25999-2 (when issued)</p> <p>c) Building standard</p> <p>d) ISO 9001:2000</p>	<p>Annual Certificate Inspection</p> <p>Annually</p>	<p>a) Information security management ISO 7799 and ISO 27001:</p> <p>b) Business continuity BS 25999-1 and BS 25999-2 (when issued)</p> <p>c) Buildings standard d) ISO9001:2000</p>
Average call handling time	The average length of time taken from when a call is answered by the Operator until Monitoring ceases	<p>36 seconds One Day</p> <p>Hourly & daily</p>	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	<p>Less than 15 seconds for 90% of</p>	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.	routed calls. One 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:- <ul style="list-style-type: none"> • call opening • process • call closure • call control behaviours • compliance 	99% Monthly Random sample of 50 calls per ECAS operator 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.

Annex: 2 Reasonable Cost Review

Background

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

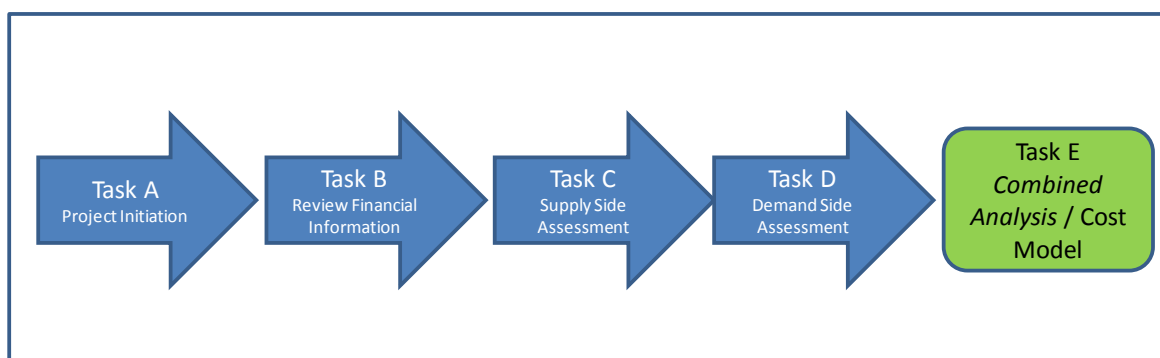
“... the Commission shall have regard to ... the need for the ECAS operator to cover the reasonable costs likely to be incurred by it in operating the service and, in particular, to recover a guaranteed rate of return”

91 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 operator 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 previous CHF reviews the requirement to have three PSAPs is contained within the CA. This requirement remains unchanged.

Approach

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

Figure 20: Project approach



Task A: Project initiation

- 93 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 operator 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 operator from April 2014 (the commencement of its financial year) to June 2015 (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.
- 94 An assessment is also made of the ECAS operator’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

- 95 ComReg has carried out a detailed review of the full set of financial information furnished by the ECAS operator. This review will be ongoing up to the final determination on the maximum permitted CHF on 12 December 2015. The financial information used by ComReg in the review includes or will include the annual audited financial statements to March 2015 and unaudited quarterly management accounts to September 2015. 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 2015.
- 96 This review does not entail an assessment of the set-up costs of the ECAS as ComReg reviewed these in 2010.

Task C: Supply side assessment

- 97 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 operator 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 operator;
- 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.

98 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 operator, reviewed the available documentation, and assessed the reasonable “in-life” costs actually incurred.

Task D: Demand side assessment

99 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.

100 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

101 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.

Annex: 3 Relevant Cost Standard

Overview

102 In previous 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 operator are recovered through the CHF.

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

(a) the need for the ECAS operator 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 ...”

104 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.

105 In making its final determination in the 2015-2016 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

106 For the purposes of the 2016-2017 CHF review ComReg considers that the above methodologies (as used in previous CHF reviews) remain appropriate and has used them for the current review.

Annex: 4 Analysis of cost categories

Pay Costs

107 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 € \times with their relative percentages approximately \times between the CSRs and the ECAS operator's own pay costs respectively.

108 ComReg considers that, while there may be slight fluctuations due to operational requirements, pay costs have reached a relatively steady state.

CSR costs

109 CSR costs relate to the staffing of the three PSAPs. There are approximately \times CSRs comprising part-time and full-time staff. This cost forms a substantial part of the in-life costs of the ECAS operation.

110 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.

111 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. None are employed directly by the ECAS operator.

112 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.

113 During site visits conducted as part of the 2015-2016 CHF review ComReg observed the ECAS operator’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. First Line Managers (“FLMs”) may also begin to directly handle calls. In certain circumstances consideration may be given to bringing in additional CSRs who are held on a standby roster. Increased activity required to address such incidents, observed by ComReg, was addressed without additional resources being summoned and in most cases was short in duration. No service alerts were observed by ComReg during its 2016-2017 CHF review.

114 No refinements or recommendations on how CSRs are rostered are being made as part of the 2016-2017 CHF review. Recommendations made by ComReg during previous reviews have been implemented by the ECAS.

115 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.

116 As highlighted in paragraph 45 ComReg is of the preliminary view that an hourly rate of €~~8~~ payable to the specialist call-centre company is reasonable. The breakdown of this hourly rate is represented by the following Figure 21. 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 DCENR for the next CA ComReg on the grounds of the commercially sensitive nature of the information has redacted all values.

117 Basic pay, including bonus and employers PRSI constitutes approximately 30% of the hourly rate. A further 30% 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 60% of the hourly rate payable to the specialist call-centre company relates directly and indirectly to the salary of CSRs.

118 Approximately 30% of the hourly rate payable to the specialist call-centre company relates to its own internal costs of providing CSRs. This includes recurring recruitment and training programmes as well as the provision of Call-centre coordinators at each of the three PSAPs. Also included is an element of general overhead as well as the specialist call-centre company own rate of return.

Figure 21– specialist call-centre company hourly rate cost categories

Cost component	Hourly rate
Basic salary – c. €30	€30
Bonus – c. 10%	€30
Employers PRSI – 10.75%	€30
	€90
Unavailable hours (<i>Training, absences, holidays, churn</i>)	30
Specific overheads (<i>rosters, call-centre coordinators</i>)	30
Cost before general overhead	30
General overhead ²⁷	30
<i>Sub total</i>	30
Rate of return	30
ComReg’s preliminary view of a reasonable hourly rate	€90

119 As part of this review, and on foot of the request from BT, ComReg has reviewed the component part of the hourly rate payable to the specialist call-centre company. 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 but that elements require amendment.

²⁷ See also paragraph 188

Basic pay, including bonus and employers PRSI

120 CSRs are paid a basic salary and are further incentivised by bonus payments which are payable upon achieving and maintaining quality of service. From discussions with the ECAS operator, 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 overall performance metrics as set out in the CA.

121 Basic pay also includes allowances for Irish language speakers, night shift allowance, weekend allowance, lead operator allowance and bank holiday premium and overtime. As there has been more churn there has been a greater requirement for overtime as it has been necessary to ensure cover.

122 During the 2015-2016 CHF review ComReg received a request from the ECAS operator to increase the hourly rate payable to the specialist call-centre company in order to increase the basic pay of CSRs. ComReg agreed to this request.

123 Information on CSR churn, provided to ComReg, suggests that in recent months several more CSRs have taken up alternative employment in other non-BT call-centres where recruitment drives have been taking place. While a level of CSR churn is inevitable, and associated costs such as training and recruitment are included in the costs of the specialist call-centre company, ComReg considers that CSR churn should be kept within acceptable limits. Where churn is too high, recruitment and training costs escalate and the quality of the service may be endangered as experienced staff cannot be retained.

124 ComReg notes that a 2014 publication by the Contact Centre Management Associated²⁸ (“CCMA”) indicates salaries in the range of c. €30k to c. €40k depending on length of service and additional skills. It should be noted that while full-time staff work approximately 220 days per annum, the ECAS operation must be staffed 24 hours a day for 365 days per annum and the hourly rate reflects this requirement.

125 ComReg has been informed that the hourly rate increase payable to the CSRs reflected in the 2015-2016 CHF review has not yet been paid. This was due to commercial negotiations between the ECAS operator and the specialist call-centre company. ComReg, understands that these additional pay costs will be incurred from 2017.

An allowance for “unavailable hours”

126 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:

²⁸ Industry Research 2014

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

127 Each of these unavailable categories is discussed further below.

Training

128 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 operator).

129 During the review ComReg observed some of the continuous on-the-job training. It appeared to be focused, clearly defined and rigorous.

130 Previous recommendations by ComReg for the recording of “Not-ready” time have been implemented by the ECAS operator.

Annual leave

131 CSRs are entitled to standard annual leave.

Breaks and absence

132 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.

133 The 2014 CCMA report reported that absences in call-centres are running at approximately 6%. Sick leave within the ECAS operation is generally less than this percentage.

Churn

134 Churn relates to the staff replacement costs generated when CSRs resign their positions and take up alternative employment. During the review it was noted that the level of churn has continued to increase.

135 In the 2015-2016 CHF review the level of churn (within the hourly rate) remained unchanged. This was due to the impact of the disruption has been offset by the significant experience of the ECAS operator and in particular the FLMs in managing the operations. This had kept the level of disruption to a minimum.

136 In the current review the level of disruption is greater than the previous year. This has necessitated a change to the hourly rate of an additional €X.

Specific Overheads associated with providing ECAS service

137 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.

138 The cost associated with recruitment have increased with the need to employ new CSRs.

139 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 operator. 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.

General overheads of the specialist call-centre company

140 ComReg is of the preliminary view that the general overheads of the specialist call-centre company which are included in the suggested hourly rate, remains at the same level as allowed in previous CHF reviews. These general overheads include:

- 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.

Rate of return

141 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 operator 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

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

143 As the number of calls has fallen, there has been a further decrease in the number of CSRs required to deliver the service. In addition, the ECAS operator 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 operator. 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.

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

Suggested hourly rate per CSR

145 ComReg is of the preliminary view that a reasonable hourly rate chargeable per PSAP CSR should be no more than €~~8~~ for inclusion in the CHF of 2016-2017. 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.

Adherence to standards

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

147 In accordance with ComReg's statutory obligation to monitor the ECAS operator quality of service²⁹ ComReg has noted that the ECAS operator is consistently achieving (and at times surpassing) the minimum set of standards set out in the CA.

148 ComReg reviews these metrics regularly throughout the year:

- It receives a monthly report from the ECAS operator. If and when a performance metric has not been achieved ComReg discusses this with the ECAS operator and also the DCENR;
- The performance metrics are presented by the ECAS operator at the quarterly forum where they are open to discussion by all present;
- As part of the annual review ComReg assesses how the performance metrics are applied in the resourcing model;
- There is continuous contact between ComReg and the ECAS operator throughout the year on the performance of the ECAS.

149 As part of this year's review ComReg discussed with the ECAS operator its procedures over the monitoring of call quality. The procedures include:

- Assessing 1% of all calls weekly;
- Independent assessment of calls by FLMs and administrative staff;
- Managerial discussion on a sample of calls to ensure consistency;
- Assessment of calls by DCENR;
- Regular refresher training and operator briefings for CSRs and FLMs.

150 The calls that are selected for review are allocated by computer to ensure an unbiased sample.

151 ComReg also observed the same operator briefing being performed by different FLM's in each of the three PSAPs to ensure consistency in delivery.

²⁹ Section 58C(G) of the Act of 2002

152 Despite previous declines in call volumes ComReg is of the preliminary view that further reductions to the number of CSRs being rostered could have a negative impact on the ECAS operator's adherence to standards and would have only a slight impact on the cost of the CHF. Any negligible benefit deriving from a reduction in the number of CSR hours required would be negatively offset by an increased risk arising from increased call-answering times.

153 Because of its critical nature, an ECAS operation cannot be run like a fully commercialised call-centre operation. All calls must be answered with the required urgency and 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 operator to make these changes and these were implemented. ComReg currently does not foresee any further changes of significance in this area.

154 It should also be noted that, because of the bursty nature of emergency call volumes, utilisation rates tend to be lower in emergency services than many other sectors:³⁰

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

155 During previous reviews the utilisation rate in the ECAS was c. 80%. No changes have been made to the ECAS operations that would suggest that this percentage has changed materially.

156 ComReg does not set 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 operator without any dis-improvement in the quality of the service. ComReg currently does not foresee any further changes of significance in this area.

157 ComReg has assessed the requirement for CSRs against the ongoing decline in call volumes. Where call volumes are declining, ComReg considered that two factors are particularly relevant and contribute to a higher minimum threshold CSR requirement:

- The requirement to have two CSRs present on all three sites at any one time for health and safety reasons;

³⁰ Source: Orbita Consultants

- The requirement of the ECAS to adhere to the performance metrics as contained in the CA.

158 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.

BT Payroll Costs

159 The ECAS operator's own pay costs are approximately €~~8~~m per annum. While there have been some minor fluctuations in these costs they have remained relatively stable for many years.

160 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.

Dedicated to ECAS

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

- One Head of Operations (80% allocation to the ECAS);
- One Centre Manager (100% allocation to the ECAS);
- Five first line managers ("FLMs") (100% allocation to the ECAS);
- Three support engineers (100% allocation to the ECAS);
- Two support/administration staff (100% allocation to the ECAS);
- One Service Manager (100% allocation to the ECAS); and
- One Solutions Architect.

Head of Operations

162 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.

163 In April 2014 a decision was taken by BT Ireland to involve the Head of Operations in other non-ECAS work. It was decided by BT that the Head of Operations spend 80% of time with the ECAS and the remaining 20% with the non-ECAS work. The payroll costs of the Head of Operations allocated to the ECAS have been reduced by 20%.

164 A flexible approach is taken but some tasks no longer performed by the Head of Operations are carried out by the Centre Manager. All critical functions remain with the Head of Operations at all times.

165 Having considered this change ComReg is of the preliminary view that there is no loss of expertise or leadership to the ECAS.

Centre Manager

166 This was a new role in 2014 within the ECAS operations. The primary function of the Centre Manager is to carry out certain tasks that are no longer performed by the Head of Operations. The Centre Manager continues to undertake all functions associated with being an FLM and is 100% dedicated to the ECAS.

167 The Centre Manager was recruited through an internal BT recruitment process and was promoted from the rank of FLM having been in that role since the commencement of the ECAS. Because of relative resource costs, this small restructuring resulted in a small net saving to the ECAS cost centre.

FLMs

168 The ECAS operator employs five FLMs to manage the three PSAPs. Previously there were six FLMs, but as noted above, one was promoted to Centre Manager. 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. There was some churn within the FLMs between 2014 and 2015.

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

170 The role of the FLMs is distinct from that of the call-centre coordinators supplied by the specialist call-centre company and not suitable for amalgamation given the structure of the current resource model. 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 FLMs³¹ 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

171 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. There was some churn within the support engineers between 2014 and 2015

172 Where more specialist engineering requirements are needed, these are sourced from the wider BT organisation. This is discussed further in paragraph 177. 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

173 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.

Solutions Architect

174 This has been a role since the inception of the ECAS, beginning in a part-time capacity. As the service has progressed, the role has grown to a full-time position to encompass both in-life technological and service issues as well as new developments and enhancements.

³¹ Including the Centre Manager

175 As well as working on the in-life support and upgrade of the IT systems with the three person technical team, the Solutions Architect also specifies and helps deliver new solutions for the ECAS including eCall, Postcodes and improvements to the SMS service.

176 ComReg is of the preliminary view that the current organisational structure relating to the staff who are 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

177 As part of the ongoing operation and maintenance of the ECAS, the ECAS operator monitors and where necessary modifies the ECAS network.

178 Some of these modifications have required specialist engineering skills from within the wider engineering team of the ECAS operator. 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 modifications are pre-approved by the ECAS management, some modifications 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.

179 Annually, as part of the CHF review ComReg assesses the time allocated to the ECAS operation as well as the processes around the recording and monitoring of this time. During the 2015-2016 CHF review ComReg assessed in greater detail the processes around the recording and monitoring of time to the ECAS operation. ComReg remains of the view that the processes are adequate. ComReg also understands that these processes are also reviewed as part of the annual audit of the ECAS operation by an independent auditor and that no adverse findings or recommendations have been made.

180 The technical integrity of the ECAS infrastructure 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.

181 ComReg, as part of its review, analysed the manner in which specialist engineers and technicians provide services to the ECAS operation and is of the preliminary view that the associated costs are reasonable for the 2015-2016 CHF review.

Other support functions charged as required to ECAS

182 The ECAS operator 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).

183 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 albeit at a decreasing rate.

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

185 Annually, as part of the CHF review ComReg assesses the time allocated to the ECAS operation as well as the processes around the recording and monitoring of this time. During the 2015-2016 CHF review ComReg assessed in greater detail the processes around the recording and monitoring of time to the ECAS operation. ComReg remains of the view that the processes remain adequate. ComReg also understands that these processes are also reviewed as part of the annual audit of the ECAS operation by an independent auditor and that no adverse findings or recommendations have been made.

186 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 2016-2017 CHF review, is that these costs are reasonable.

Non-pay costs

187 The ECAS operator's non-pay costs are approximately €8m per annum. Its non-pay costs primarily consist of:

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

Premises

188 The ECAS operator 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 in General Overhead within Figure 21).

189 In addition to the leasing of the premises, the ECAS operator 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.

190 There are also facilities management charges for the two PSAPs leased by the ECAS. Having reviewed the costs as part of the 2016-2017 CHF review, ComReg is of the preliminary view that the costs are reasonable.

Backhaul

191 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.

192 As part of the 2015-2016 CHF review, ComReg compared the rates calculated by the ECAS operator for its own internal transfers compared to broadly equivalent rates calculated from Eir's Wholesale's reference offer for a similar service. The rates calculated for internal transfer purposes were less than those based on the reference offer. No rate changes have been noted for the 2016-2017 review.

Network maintenance

193 The ECAS operator 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 operator 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.

194 With the extension of the CA certain service contracts were also extended. It is ComReg's understanding that the terms and conditions of these contracts remain unchanged and in many cases the annual cost also remains largely unchanged, despite the fact that the equipment they relate to is more than five years old. Where there were rate increases these tended to be mandated within the original service agreements and are less than 8% of the original annual cost of the service agreement. ComReg's preliminary view is that these costs are reasonable.

Other non-pay costs

195 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

196 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 €2.3m. This was based on an initial investment of approximately €11m, 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.

197 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. €8m is now being written off over the remaining life of the extended contract.

198 During the set-up phase the ECAS operator invested in fixed assets in deploying its ECAS network. This fixed asset investment consisted of both time spent by the ECAS operator'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 188, the ECAS operator does not own the premises from which it runs the ECAS PSAPs which are leased from third parties.

199 The set-up costs were incurred once by the ECAS operator 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

200 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.

201 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.

202 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 DCENR 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

203 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

204 The 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.

205 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.

206 As the DCENR has extended the CA by an additional year the guaranteed rate of return continues to apply to both the initial capital investment as well as any subsequent investment.

Cost of capital rebate

207 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.

208 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.

209 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.

210 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 €~~3~~ per annum when the CA commenced but on a reducing scale over the life of the CA³².

211 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

212 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 DCENR and is not under the control of ComReg or the ECAS operator.

213 Use of the sinking fund is the responsibility of the DCENR. 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.

214 Currently the ECAS has paid approximately €~~3~~ into the sinking fund.

215 The proposed CHF reflects the greater than predicted decline in call volumes since spring 2015 and the necessity to ensure that there are sufficient funds available to meet any under-recovery. Currently there are marginally more funds in the Sinking Fund than the level of the under-recovery.

216 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.

³² As the cost of capital rebate has been reducing over the life of the CA and is now less than €~~3~~ per annum, when it is rounded in various figures and tables it becomes Nil