

**BEREC GUIDELINES ON
Regulation (EU) No 531/2012, as amended
by Regulation (EU) 2015/2120 and
Commission Implementing Regulation (EU)
2016/2286
(Retail Roaming Guidelines)**

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Introduction

These revised BEREC Guidelines are designed to explain Regulation (EU) No. 531/2012¹ as amended by Regulation (EU) 2015/2120 (hereafter “Roaming Regulation”)² including the Commission Implementing Regulation (CIR) laying down detailed rules on the application of a “fair use policy” (FUP), on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment (hereafter: “CIR”)³. These Guidelines replace the BEREC Guidelines published in 2016 (BoR (16) 34) which dealt mainly with the transitional period. From 15 June 2017 onwards roaming providers should not levy any additional surcharge to the domestic retail price on roaming customers in any EEA Member State for any regulated roaming service, subject to a FUP. These changes required an update of the BEREC Guidelines.

As before, these revised Guidelines are complementary to the provisions set out in the Roaming Regulation and are not presented as an official legal interpretation of those provisions. NRAs are to take these BEREC Guidelines into utmost account when supervising the Roaming Regulation in their Member States.

These Guidelines are complementary to the BEREC Guidelines on wholesale roaming access and separate sale of services pursuant to Articles 3, 4 and 5 Roaming Regulation, which will be updated separately by including the new provisions on wholesale roaming access.

¹ Regulation (EU) No. 531/2012 on roaming on public mobile communications networks within the Union amended by Regulation 2015/2120

² Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No. 531/2012 on roaming on public mobile communications networks within the Union

³ Commission Implementing Regulation 2016/2286 of 15 December 2016 laying down detailed rules on the application of FUP and on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment

A. Scope of the Roaming Regulation

a) Regulated roaming services

1. “Union-wide roaming” means the use of a mobile device by a roaming customer to make or receive intra-Union calls, to send or receive intra-Union SMS messages or to use packet switched data communications, while in a Member State other than that in which the network of the domestic provider is located, by means of arrangements between the home and the visited network operator. Thus, a roaming service does not include a call made or SMS sent from the network of the domestic provider to another country in the EEA (international call or SMS).

2. The definition of “regulated roaming call” pursuant to Article 2 (2) (h) of the Roaming Regulation refers to calls made to or received from the visited network from/to a Member State of the EEA. This includes intra-EEA-calls, e.g. when a customer of a Dutch operator is roaming in Spain and calls an Austrian customer located in the EEA or a customer of a Norwegian operator is roaming in Spain and calls a customer of an Austrian roaming provider located in the EEA. The aforesaid applies analogously to regulated roaming SMS messages according to Article 2 (2) (k). Regulated data roaming services, according to Article 2 (2) (m), are data services consumed by a roaming customer whilst the customer is connected to a visited network in the EEA.

3. BEREC notes that a regulated roaming call comprises a voice service as defined in Article 2 (2) (h) Roaming Regulation. This definition in itself is technology neutral, meaning that it is irrespective of the technical means used by a provider to connect voice telephony calls between users.

4. The definition of “regulated data roaming service” according to Article 2 (2) (m) applies irrespective of the technology used over a mobile communications network (e.g. GPRS, UMTS, LTE, and any other or future technologies). However, regulated data roaming services, as a general rule, do not include services provided through a Wi-Fi connection, unless, for instance, the Wi-Fi connection in question is managed and/or used by a terrestrial public mobile communications network operator to allow or increase available network capacity and/or coverage as specified by 3GPP Release 8 onwards. Regulated data roaming services also include MMS (see Guideline 140).

5. Article 2 (2) (g) Roaming Regulation defines a “roaming customer” as a customer using regulated roaming services from a roaming provider by means of a terrestrial public mobile communications network situated in the Union whose contract or arrangement with that roaming provider permits Union-wide roaming.

b) Geographical scope of the Roaming Regulation

6. The Roaming Regulation applies to communication made and received within the EEA including the outermost regions. The territorial scope of the European Union is defined by the Treaties – Article 355 Treaty of the functioning of the European Union⁴. Mobile operators are strongly advised to consult the EU Treaty in this regard. The transparency measures set out in Articles 14 and 15 of the Roaming Regulation

⁴ For a recent judgment in the telecom area concerning Article 355 (2) on OCTs the reader may wish to consult paras 73 to 82 in the judgment in case C-327/15 TDC. For an interpretation of Article 355 (1) TFEU on outermost regions, the reader may consult the judgment in Case C-132/14 & co and the Opinion of Advocate General in that same case.

dealing with the welcome and data initiation messages and the cut-off limit for data roaming services apply to roaming services within the EEA as well as to roaming services outside the EEA. The EU Roaming Regulation also applies to the EEA EFTA States Norway, Iceland and Liechtenstein. The amended obligations in Regulation (EU) 2015/2120 are incorporated in the EEA agreement and will apply to these countries as soon as they are approved by their respective parliaments. Amendments concerning wholesale regulation will also be incorporated in EEA agreement.

B. Abolition of retail roaming surcharges - RLAH

7. With effect from 15 June 2017 roaming providers shall not levy any surcharge in addition to the domestic retail price on roaming customers in any Member State for any regulated roaming service (Article 6 a Roaming Regulation).

8. With the abolition of retail roaming surcharges in the Union, the same tariff conditions apply for the use of mobile services while roaming abroad in the Union and at home (i.e. in the country of the mobile subscription of the customer), subject to the conditions set out in a FUP. Accordingly, wherever regulated roaming services are offered, the implementation of “Roam Like at Home” (RLAH) allows the customer to use services while travelling in other EEA Member States in the same way as in their home country, i.e. that RLAH tariff effectively includes roaming services in the domestic bundle.

9. According to Article 6 a Roaming Regulation, roaming providers are not allowed to levy any general charge to enable roaming services to be used abroad. BEREC understands this provision to mean that roaming providers cannot add a direct or indirect/quasi surcharge for enabling roaming in the EEA. An example of an indirect/quasi surcharge for enabling roaming would be if two otherwise identical tariff plans of a roaming provider differ only in the fixed periodic fee and the ability to roam with the roaming-enabled plan being more expensive than the non-roaming-enabled plan. In consequence, two different prices for the same tariff plan with and without roaming service are not allowed. A further example could be a home network surcharging its customer for domestic calls made from the home network’s Member State to a customer in a roaming situation. Finally, it should be noted that customers on a non-roaming enabled tariff will not become entitled to receive roaming services at their existing domestic tariff.

10. According to Article 6 b (1) Roaming Regulation roaming providers may apply a fair use limit to the consumption of regulated roaming services provided at the applicable domestic price in order to prevent abusive or anomalous usage of regulated retail roaming services by roaming customers, such as the use of such services by roaming customers in a Member State other than that of their domestic provider for purposes other than periodic travel. The CIR stipulates the rules that apply when the roaming provider avails itself of that option to ensure the consistent application of a FUP in the EEA.

11. Where roaming customers exceed the FUP, they may be required by the roaming provider to pay a surcharge for the consumption of any further regulated

roaming service. However, Article 6 e (1) Roaming Regulation limits the amount of any such surcharge (see chapter E, Guideline 72).

C. Domestic retail price as basis for retail roaming prices

12. The policy objective of the Roaming Regulation is the abolition of surcharges on the prices for roaming services. Thus, as a general rule, roaming providers cannot apply a price for regulated roaming services which exceeds the price that would be incurred by the customers if they were consuming those services in the home country. This is known as the domestic retail price as defined in Article 2 (2) (r) Roaming Regulation.

13. In the case of per-unit domestic retail prices, operators may apply different prices for calls or SMS messages to the network of the customer ("on-net") than to a network other than the customer's network ("off-net"), with the latter typically exceeding the former. For the purposes of the Roaming Regulation, according to Article 2 (2) (r) Roaming Regulation, roaming providers may consider the off-net price as the domestic retail price. In case there are different off-net prices in a subscription, operators shall be deemed to apply the same charging mechanism which would apply to the relevant roaming customers in their Member State.

14. If there is no specific domestic per-unit retail price, such as domestic unlimited tariff plans or bundles⁵ (tariffs with a volume allowance), the domestic retail price shall be deemed to be the same charging mechanism as if the customers were consuming the domestic tariff plan in their Member State. For bundled tariffs, operators must apply the same charging mechanism as in their home country, therefore any usage (either voice, SMS or data) should be deducted from the domestic allowance (in case of voice and SMS, it could be the off-net allowance).

15. In some domestic tariffs, calls to limited groups (for example family members, a group of friends or business colleagues) may benefit from preferential tariffs. In this case, operators should not charge more than the off-net domestic price applicable to calls to that group (for roaming calls made to that limited group, subject to the FUP). In cases where these conditions contain a bundle or a package, operators can deduct, as a maximum, the off-net units from these allowances. In tariff plans applicable to a group of users where the data allowance can be shared among a number of users, the same rules apply, meaning that the data allowance can be shared by all the users while roaming.

16. If operators apply a fee for each initial call (set-up fee) for domestic services, they could also do so for the domestic charge for roaming services (see chapter J).

⁵ Unlimited tariff plans or bundles can include one or more mobile retail services.

D. Fair Use Policy

17. A FUP should enable the roaming provider to prevent abusive or anomalous usage such as the use of roaming services for purposes other than periodic travel (Article 6 b (1) Roaming Regulation).

18. The basic principle of the FUP is that a roaming provider shall provide regulated retail roaming services at the domestic price under the same conditions as if such services were consumed domestically to its roaming customers who are normally resident or have stable links entailing a frequent and substantial presence in the Member State of that roaming provider while they are travelling in the EEA.

19. Apart from the normal residence or stable links requirements, other elements of a FUP are the control mechanism based on objective indicators, the measures to stop organised resale of SIM cards as well as the limits for open bundles and pre-paid subscriptions. The implementation of one or more of these concepts should be considered as an implementation of a FUP.

a) Normal residence and stable links

20. Article 3 CIR, read in conjunction with Recitals 10 and 11, establishes the principle that a roaming provider shall provide regulated roaming services at the applicable domestic price for its roaming customers who are “normally resident” or who have “stable links entailing a frequent and substantial presence” in the Member State of that roaming provider. Article 2 (2) (a) defines “stable links” with a Member State by describing situations listed in the following non-exhaustive list:

- full-time and durable employment relationship, including that of frontier workers;
- durable contractual relations entailing a degree of physical presence analogous to a self-employed person;
- participation in full-time recurring courses of study;
- other situations such as posted workers or retired persons, whenever they involve an analogous level of territorial presence to the other categories.

21. In Recital 10, the CIR stipulates that in order to ensure that retail roaming services are not subject to abusive or anomalous usage unrelated to periodic travel, roaming providers may need to determine the normal place of residence or the existence of stable links of their roaming customers. For this purpose, the roaming provider should be able to specify reasonable evidence of the place of residence or stable links in a way that is transparent to its customers and under the supervision of the national regulatory authority (NRA) as to the proportionality of the overall documentary burden and its appropriateness in the national context.

22. Recital 10 provides a non-exhaustive list of documentary evidence that operators may rely on in order to establish residence and/or stable links. A key principle is that the home operator may request such documentation, however, any such request of proof should be reasonable and is not compulsory. In addition, the provider's request of documentary evidence should have regard to the customary forms of such proof already used in the particular Member State and to the perceived level of risk of abusive or anomalous usage.

23. BEREC finds that all customers should be given a non-exhaustive list of possible documentary evidence, announced in advance (for example, in the operators' website), from which they could choose, should any proof be deemed necessary. BEREC further considers that all such customers could be invited to select any applicable category as a stable link from the suggested list. In this regard, BEREC considers it reasonable and proportionate that any easily accessible credible evidence demonstrating stable links with the Member State (as opposed to permanent residence) should be acceptable for the purposes of acceptance at the contract set-up stage.

24. Any of the following could be considered as evidence proving normal residence or stable links in view of Recital 10 and the requirements of necessity and proportionality (this can be checked by the provider at a later stage in accordance with Recital 11 CIR):

- a declaration by the customer;
- presentation of any valid document which proves that the person falls into one of the categories of stable links;
- details of the customer's address and/or details showing the provision of any other services to them at the given address (e.g. a utility bill);
- a declaration or other proof from an employer or educational establishment;
- evidence of a posting in a Member State where the roaming contract has been requested;
- proof of registration with the local council or any other public authority;
- registration in a population registry indicating that the customer is permanently residing in that Member State;
- additional evidence (in the case of cross-border workers) of employment by a company in a different country of residence;
- any other reasonable evidence not listed in Recital 10 that could be used to prove stable link or permanent residence, such as a valid property rental agreement;
- in the case of business customers, relevant evidence might include documentary proof of the establishment or activities of the business in the Member State concerned.

25. Article 4 (1) CIR stipulates the possibility for the operator to demand proof of normal residence or of other stable links with the customer's Member State entailing a frequent and substantial presence on its territory before providing regulated retail roaming services at the applicable domestic retail price. Such documentary proof may be requested before or after conclusion of a contract. Regarding existing customers prior to 15 June 2017, BEREC considers it best practice that any reliable information already available to the operator should be used as proof of stable links or normal residence and these customers should be switched automatically to the RLAH tariff scheme. From 15 June 2017, any requests of proof of normal residence or stable links after conclusion of a given contract should be limited strictly to circumstances in which data that have to be collected for billing purposes appear to provide indications of

abusive or anomalous usage unrelated to periodic travel (Recital 11). If such request is made after 15 June 2017 either at the time of concluding a contract or after an alert according to Article 5 (3) CIR, and a customer cannot supply the required stable links or permanent residence documentation, the operator does not have to offer RLAH to that customer but would instead be able to surcharge any further roaming activity. Information about applicable surcharges is included in chapter E. In the case of the evidence requested after the conclusion of a given contract (that is after the minimum four-month observation period), Recital 11 stipulates that:

- such requests should be limited strictly to circumstances in which data, that have to be collected for billing purposes, appear to provide indications of abusive or anomalous usage unrelated to periodic travel;
- the evidence should only comprise what is strictly necessary and proportionate to confirm the customer's attachment to the Member State of the roaming provider; and
- there should be no requirement for recurrent submission of such documentation unrelated to a risk-based assessment of the probability of abusive or anomalous usage.

b) Control mechanism and objective indicators

26. To prevent abusive or anomalous usage of regulated retail roaming services beyond periodic travelling in the EEA, Article 4 (4) CIR stipulates that roaming providers may apply fair, reasonable and proportionate control mechanisms based on objective indicators.

27. The CIR limits the objective indicators to two types that can be used by the operator to identify risks of abusive or anomalous use:

- the prevailing consumption and presence criteria;
- other objective indicators
 - long inactivity of a given SIM card associated with use mostly, if not exclusively, while roaming
 - subscription and sequential use of multiple SIM cards by the same customer while roaming.

28. In relation to the first type of objective indicators, pursuant to Article 4 (4) subparagraph 2 CIR, a roaming provider may take measures to establish whether a customer has prevailing domestic consumption over roaming consumption or prevailing domestic presence over roaming presence. These indicators should be observed cumulatively (Article 4 (4) subparagraph 3 CIR).

29. In relation to the second type of objective indicators, the other objective indicators are exhaustively provided for in Article 4 (4) subparagraph 7 CIR and refer to long inactivity of a given SIM card associated with use mostly, if not exclusively, while roaming, and the subscription and sequential use of multiple SIM cards by the same customer while roaming.

i) Prevailing domestic consumption or presence over roaming consumption or presence

30. The CIR stipulates that:

- the objective indicators may include measures to establish whether customers have prevailing domestic consumption over roaming consumption or prevailing domestic presence over presence in other Member States of the Union (Article 4 (4) subparagraph 2);
- roaming providers shall observe such indicators of presence and consumption cumulatively (Article 4 (4) subparagraph 3);
- the objective indicators of presence and consumption shall be observed for a period of time of at least four months (hereafter "observation window") (Article 4 (4) subparagraph 3).

31. The CIR does not detail what is considered "prevailing" domestic consumption or presence. Given the ordinary meaning of the term, BEREC considers that prevailing domestic consumption occurs if more than 50% of the mobile services are consumed domestically within the observation window. The same holds respectively for prevailing domestic presence. Recital 15 CIR states that presence and consumption outside the EEA should be considered domestic in this regard. Furthermore, the CIR states that in relation to these indicators any day a roaming customer has logged on to the domestic network (for any length of time) shall be counted as a day of domestic presence (Article 4 (4) subparagraph 6 CIR).

32. In relation to the assessment of prevailing domestic presence, the roaming provider should assess the prevailing domestic presence on the basis of data available to the operator. For example, if the customer has not logged on to any network during a day (e.g. device is switched off), such a day should not be taken into account in determining whether there is prevailing domestic presence. In this case, the roaming provider should assess, on the basis of the days during which the customer has logged on to a network, whether there have been more days of domestic presence over presence in other Member States.

33. Article 4 (4) subparagraph 3 CIR stipulates that the indicators relating to prevailing consumption or presence shall be observed cumulatively and for a period of time of at least four months. In line with this, Article 4 (4) subparagraph 5 CIR (and reflected in Article 5 (3) subparagraph 2) establishes a "safe harbour" for roaming customers. Either prevailing domestic consumption or prevailing domestic presence of the roaming customer during the defined observation window is to be considered as proof of non-abusive and non-anomalous usage of regulated retail roaming services.

34. BEREC understands that providers may examine on any given day whether a customer had prevailing domestic consumption or presence during the observation window. In doing so, BEREC understands that providers shall take into account an observation window consisting of the preceding consecutive four months or more, in accordance with the terms of the applicable FUP. It follows that the roaming provider, in order to alert the customer of the application of a surcharge, must be able to demonstrate that there is neither prevailing domestic consumption nor prevailing domestic presence by the roaming customer over the latest available preceding consecutive four months or longer. No shorter observation window may be used for

any customers (existing and new customers) for the purposes of potential alerts and surcharging under the FUP.

35. The prevailing consumption criteria may relate to one or more mobile retail services (Article 4 (4) subparagraph 4 CIR). The provider might determine the prevailing consumption per regulated retail roaming service (voice, SMS, data) individually and the prevailing domestic presence according to Guideline 33, and may send an alert and apply the subsequent surcharge to the particular retail roaming service(s) regarding which risk of abusive or anomalous usage has been detected during the observation window.

ii) Other objective indicators:

36. Regarding other indicators, in Article 4 (4) subparagraph 7 CIR sets out the following indicators:

- long inactivity of a given SIM card associated with use mostly, if not exclusively, while roaming;
- subscription and sequential use of multiple SIM cards by the same customer while roaming.

37. BEREC understands "inactivity" to mean that the SIM card was not used for making or receiving a call, sending an SMS or for data services; or that there is virtual absence of such use. Inactivity could occur over a single continuous period such as of two or three months, or sequential periods of domestic inactivity (several weeks) in combination with mostly roaming use. BEREC considers it good practice to monitor such usage over a four-month observation window in line with the rule applicable to indicators of domestic presence and consumption.

38. BEREC notes that the objective indicator "subscription and sequential use of multiple SIM cards by the same customer while roaming" is not subject to any specific observation window.

39. Guidance on the alert which should be given to customers when their behaviour pattern is indicating risk of anomalous or abusive use is discussed in chapter H (Guidelines 123 to 129).

c) Organised resale

40. According to Article 4 (5) CIR, the roaming provider may take immediate proportionate measures in case of organized resale to ensure compliance with all conditions of the underlying contract. Organised resale occurs when a number of SIM cards have been the object of organised resale to persons not effectively residing or having stable links in the Member State of that retail roaming provider for other purposes than periodic travel. These measures can be at wholesale or retail level according to the violation of contract conditions that has been evidenced by the roaming provider.

d) Fair use policy (FUP) concerning open data bundles

41. According to the definitions in Article 2 (2) (c) CIR open data bundle means a tariff plan for the provision of one or more mobile retail services which does not limit the volume of mobile data retail services included against the payment of a fixed periodic

fee. It can also refer to cases where there is a data bundle for which the domestic unit price of mobile data retail services, derived by dividing the overall domestic retail price, excluding VAT, for mobile services corresponding to the entire billing period by the total volume of mobile data retail services available domestically, is lower than the regulated maximum wholesale roaming cap referred to in Article 12 Roaming Regulation. This implies that there are two types of open bundles:

- unlimited data tariffs;
- tariffs where the implicit domestic unit price for data is lower than the regulated maximum wholesale cap.

42. According to Recital 13 CIR, open bundles are more likely than other tariff plans to be subject to organised resale to persons, or to anomalous or abusive usage. This might lead to the disappearance of such roaming enabled tariff plans in domestic markets. Therefore, operators may apply volume limits to open bundles in addition to the other FUP measures (normal residence, stable links and control mechanism based on objective indicators related to the risk of abusive or anomalous use of roaming services beyond periodic travelling, see chapter D, Guidelines 20 to 39).

43. In order to determine the minimum fair use volume of regulated data roaming service allowances that may be applied to open bundles, three steps are necessary:

- definition of the domestic retail price of mobile services that is to be applied in the calculation used to determine whether the bundle is an open data bundle and the minimum fair use volume of data roaming services to be associated with the open bundle (see steps below);
- identification of whether a bundle can be considered an open bundle;
- calculation to determine the minimum fair use volume of data roaming volume allowance associated with the open bundle (hereafter the "roaming data allowance").

44. It should be noted at the outset that in the calculation required to assess whether a limited bundle is an open data bundle, the domestic retail price of the bundle should be divided by the volume of data services only (i.e. the volume of minutes of voice calls and SMS should be excluded from the calculation).

45. BEREC considers that in case of domestic bundles for which the speed of the subscription is throttled (at domestic level) after a data allowance limit is reached, the data limit does not in fact limit the volumes consumed and therefore these kinds of subscriptions may be treated as unlimited open data bundles, for the purposes foreseen in Article 2 CIR (though they are not unlimited tariffs in a general sense).

Definition and determination of domestic retail price of open data bundles

46. The relevant domestic retail price for determining whether a tariff plan for a mobile communications service with a limited data allowance is an open data bundle and/or for determining the minimum roaming data allowance (for all open bundles, i.e. including the unlimited bundles) is the fixed periodic fee payable for the mobile retail services included in the tariff plan. Mobile retail services are defined as public mobile communications services provided to end-users, including voice, SMS and data services (Article 2 (2) b and c, Article 4 (2) CIR).

47. In the event that the domestic retail price includes services other than mobile retail services, such as fixed electronic communication services, Article 4 (2) subparagraph 2 CIR stipulates that the domestic retail price of the data bundle shall be determined by taking into account the price applied for the separate sale of the mobile retail service component of the bundle, excluding VAT, if available, or the price for the sale of such services with the same characteristics on a stand-alone basis. On this basis, BEREC considers that deducting stand-alone prices for non-mobile services from the price of the overall bundle would not be consistent with the CIR.

48. A mobile handset subsidy should be considered as a non-mobile service (other non-mobile services could be cloud services, news services, fixed access services, etc.). In this case, the provider may choose to apply the domestic retail price for the separate sale of the mobile service component (e.g. SIM-only offer) or the domestic retail price for the sale of such services with the same characteristics (e.g. same volume of voice minutes, SMS and data). BEREC considers that only tariff plans from the same operator can be taken into account for the calculations. In case operators do not offer a mobile service component with the same characteristics separately, operators shall find a solution in coordination with the NRA to define the mobile retail price in line with the CIR.

49. According to Article 2 (2) b CIR, the definition of mobile retail services includes mobile communications services such as voice, SMS and data services. Therefore, for bundles including two or more services (voice, SMS and/or data services) the full price for these services should be used, operators are not allowed to use other stand-alone data tariffs or data add-ons as a reference for the calculations to define the open bundle and the corresponding roaming data allowance.

50. When a tariff plan contains a discount scheme for the domestic retail price, BEREC considers that operators could either take the price without discount or the reduced price over that billing period as the domestic retail price, consistent with Recital 13 CIR. In case the operator takes the reduced price, after the billing period(s) with price discounts, the domestic price of the bundle without discount applies (both for the definition of open bundle as well as for the calculation of the roaming data allowance).

51. When customers purchase an add-on to their bundle for additional mobile retail services beyond the allowances included in their bundle, such an add-on shall be subject to a separate but similar treatment as the bundle for the purposes of determining whether the roaming provider may apply limits to the consumption of data roaming services, consistent with Article 4 (2) CIR.

52. When an operator provides additional add-ons e.g. in terms of volume to the customer (e.g. specific promotion), the customer shall be able to consume this allowance under the same conditions as at home.

Examples of open data bundles concerning limited offers

53. In line with Article 2 (2) (c) CIR, BEREC provides the following examples for the definition of open data bundles:

- A domestic retail price, excluding VAT, for mobile services is 10 Euro per month with a data allowance of 3 GB per month. The wholesale data roaming cap is

7.7 Euro⁶ per GB. 10 Euro divided by 3 GB gives a price of 3.33 Euro per GB. This is lower than the wholesale data roaming cap of 7.7 Euro per GB. Therefore, such a bundle can be considered as an open data bundle.

- An overall domestic retail price, excluding VAT, for mobile services is 10 Euro per month with a data allowance of 1 GB per month (not throttled once the threshold is reached). The wholesale data roaming cap is 7.7 Euro per GB. 10 Euro divided by 1 GB gives a price of 10 Euro per GB. This is higher than the wholesale data roaming cap of 7.7 Euro per GB. Therefore, this bundle is not an open data bundle.

Determination of the minimum volume limit that may be applied to the data roaming service in open data bundles

54. Without prejudice to any applicable domestic volume limit, in the case of an open data bundle according to Article 4 (2) CIR, the roaming customer shall be able to consume, when periodically travelling in the Union, a volume of data roaming retail services at the domestic retail price equivalent to at least twice the volume obtained by dividing the overall domestic retail price of that open data bundle, excluding VAT, corresponding to the entire billing period by the regulated maximum wholesale roaming cap referred to in Article 12 Roaming Regulation.

55. It should be noted that in practice this implies that for limited offers there may be two different types of open data bundles:

- Open data bundles for which the minimum roaming data allowance (calculated as described in accordance with Article 4 (2) CIR) is larger than the domestic data allowance: In this case the roaming customer shall be able to consume roaming volumes at the domestic retail price to at least the full amount of the domestic data allowance. Once the domestic data allowance is exceeded, the domestic out-of-bundle charging mechanism applies until the roaming data allowance is reached. Only after the roaming data allowance is exceeded, operators may apply a surcharge in addition to the domestic out-of-bundle charging mechanism. The sum of the domestic price plus the surcharge shall not be higher than the regulated retail roaming caps according to Article 6e (1) (b) Roaming Regulation (see Guideline 72). In cases where operators stop providing data services after the domestic data allowance is reached, the same mechanism should be used while customers are roaming in the EEA. If the customer subscribes to an add-on, the add-on shall be treated in accordance with Guideline 51.
- Open data bundles for which the minimum roaming data allowance is lower than the domestic data allowance: In this scenario the roaming customer shall be able to consume roaming volumes at the domestic retail price to at least the roaming data allowance (calculated in accordance with Article 4 (2) CIR) which in these cases will be lower than the domestic data allowance of the open bundle. After the roaming data allowance is exceeded, operators may apply a surcharge in addition to the domestic price until the domestic limit has been reached. After the domestic data allowance and the roaming data

⁶ The wholesale data roaming cap applies as of 15 June 2017 and will gradually decrease until 2022.

allowance are exceeded, operators may apply a surcharge in addition to the domestic out-of-bundle price. The sum of the domestic price plus the surcharge shall not be higher than the regulated retail roaming caps according to Article 6 e (1) (see Guideline 72).

56. BEREC provides the following examples for the calculation of the roaming data allowances (assuming a wholesale cap of 7.7 Euro per GB):

- A mobile tariff offer of 90 Euro per month excluding VAT including unlimited voice, SMS and data consumption: This is an open data bundle tariff as it includes an unlimited data allowance. The operator might apply a roaming data allowance of at least 23.38 GB $((90/7.7)*2)$ when roaming.
- A mobile data-only bundle for 10 Euro per month excluding VAT including 2 GB data: The domestic retail price is 10 Euro since there is no other non-mobile service included. This bundle is an open data bundle $(10/2 < 7.7)$. A roaming customer using this offer shall be able to consume roaming data volumes of at least 2.60 GB. As the roaming data allowance is larger than the domestic data allowance the roaming customer shall be able to consume roaming volumes at the domestic retail price (until the domestic data allowance is reached, it is deducted from the allowance; after exceeding it, the out-of-bundle price applies) to at least the full amount of the roaming data allowance.
- A domestic bundle of mobile services for 20 Euro excluding VAT per month for unlimited voice, unlimited SMS and 7 GB of volume: This bundle is an open data bundle. A roaming customer using this offer shall be able to consume roaming data volumes at the domestic retail price of at least 5.19 GB $((20/7.7)*2)$.
- A domestic dual play offer consisting of mobile services and fixed internet access of 40 Euro excluding VAT per month: The mobile service includes unlimited voice, unlimited SMS and 10 GB data. Since there is a non-mobile service in the bundle, the domestic retail price of a stand-alone mobile service offer with the same characteristics could be used as the domestic retail price, e.g. a SIM-only offer with unlimited voice and unlimited SMS and 10 GB data for 25 Euro excluding VAT per month. The domestic retail price for mobile services that is the basis for the calculations is 25 Euro. This bundle is an open data bundle. A roaming customer with this offer shall be able to consume roaming data volumes without any roaming surcharge of at least 6.49 GB $((25/7.7)*2)$.
- A mobile service consisting of either 1,000 minutes or 1,000 SMS or 1,000 MB or any combination to a maximum cumulative amount of 1,000 units for 5 Euro excluding VAT per month: This tariff is an open bundle, and the roaming customer should be able to consume at least 1.30 GB when roaming $((5/7.7)*2)$. As the roaming data allowance is larger than the domestic data allowance, the roaming subscriber shall be able to consume roaming volumes at the domestic retail price to at least the full amount of the roaming data allowance (until the domestic data allowance is reached, it is deducted from the allowance; after exceeding the domestic charging mechanism applies e.g. out-of-bundle price).

57. For the avoidance of doubt, open bundles can also be subject to the control mechanisms laid out in Article 4 (4) CIR discussed in the Guidelines 26 to 39 above.

58. Whenever a customer starts using roaming services between the start and end of their billing period and the customer has already used a part of the domestic available volumes, the domestic volume cap applies irrespective of the roaming fair use volume limit. For example, only 2 GB of domestic usage might remain at the moment of commencing roaming of a domestic bundle of 5 GB. After going beyond the domestic volume limit (5 GB), but remaining within the available data roaming fair use limit, the roaming provider must apply the same conditions as if such services were consumed domestically, e.g. the out-of-bundle domestic retail price can be charged (in the same billing period), or the data services may be cut-off. The roaming surcharge can only be applied when the roaming data consumption exceeds the roaming fair use limit.

e) Pre-paid tariffs

59. According to Article 2 (2) (d) CIR a pre-paid tariff plan means a tariff plan under which mobile retail services are provided upon deduction of credit made available by the customer to the provider on a per-unit basis, in advance of consumption, and from which a customer may withdraw without penalty upon exhaustion or expiry of credit. Therefore, only tariffs offered to pre-paid customers that are charged per unit are pre-paid tariffs. Post-paid per-unit tariffs do not fall under this definition.

60. Other types of tariffs offered to pre-paid customers, such as tariffs that include a bundle of retail mobile services, should not be considered as pre-paid tariffs for the purposes of the CIR. For example, in the case of such tariffs, the operator may determine if they can be considered open data bundles.

61. In accordance with Article 4 (3) CIR, roaming providers may limit the consumption of data roaming retail services for pre-paid tariffs at the domestic retail price as an alternative to requesting proof of normal residence or other stable links (Guidelines 20 to 25). This means when applying this volume limitation, a FUP based on normal residence and stable links is not allowed to be applied. This limit on consumption of data roaming retail services within the Union has to be calculated at the moment when a user of a pre-paid tariff plan starts roaming i.e. crosses the border out of the Member State of the home network.

62. The limit on consumption of data roaming retail services within the Union (see Guideline 61) shall include the volume obtained from the following calculation: overall amount of remaining pre-paid credit (excl. VAT) divided by the applicable wholesale data cap.

63. The remaining credit when a customer starts to use data roaming services in another EEA country should be used for the calculation. When a customer is already periodically travelling within the EEA and tops up the credit the operator should recalculate the data fair use volume and BEREC considers it best practice that the customer is informed about the recalculation. Similarly, this revised limit should be calculated dividing the overall amount of remaining pre-paid credit (excl. VAT) by the applicable wholesale cap.

64. The consumption of pre-paid credit for roaming calls or SMS messages at the applicable rate will reduce the available credit for data roaming during the same trip, irrespective of the roaming data limit.

65. The roaming provider must inform the customer via the personalized pricing information in line with the provisions in Article 15 Roaming Regulation (see chapter H) about the roaming data allowance (when using data roaming services in that particular Member State for the first time).

66. BEREC provides the following examples for pre-paid offers and their associated roaming data limits:

- A pre-paid customer has a remaining credit of 25 Euro (excl. VAT) when starting to use data roaming services in a Member State of the EEA. The pre-paid tariff of the customer includes a data price of 10 Euro cents (excl. VAT) per MB. With the remaining credit available, the customer would be able to consume up to 0.25 GB of data domestically. Assuming the wholesale data cap is 7.7 Euro per GB (and the remaining 25 Euro credit), the roaming volumes as calculated based on Article 4 (3) for this customer would be 3.25 GB. Since the volume limit that the operator can apply to data roaming is larger than the domestic data volume that the consumer can buy with the remaining credit, the user is only able to consume roaming data volumes until the credit is exhausted. It should be noted that this example considers that the customer only consumes volumes of data services. However, where a customer on a pre-paid offer consumes other mobile retail services while roaming or domestically (e.g. SMS and/or voice calls), these would be debited from the remaining credit at domestic retail prices and this will in turn reduce the available credit for consumption of further mobile retail services (i.e. data, SMS and voice calls) both while roaming and domestically. In this case, the operators cannot apply a fair use limit for data roaming, because the roaming data allowance calculated according to the CIR's formula is higher than the domestic data volume, and the operator therefore does not have to include information about the roaming data allowance in the personalized pricing information.
- A pre-paid customer has a remaining credit of 50 Euro (excl. VAT) when starting to roam in the EEA. The unit price for data is 0.5 Euro cents per MB (excl. VAT). In this example, the customer would be able to consume up to 10 GB of data domestically. Assuming a wholesale data cap of 7.7 Euro per GB (and the remaining 50 Euro of credit), the roaming provider may limit data roaming volumes offered at the domestic price without any surcharge for this customer to 6.49 GB. It should be noted that this example considers that the customer only consumes volumes of data services. As mentioned above, if the customer consumes roaming calls and SMS, this impacts the available credit for data roaming (see Guideline 64).

67. For the avoidance of doubt, pre-paid tariffs can also be subject to the control mechanisms in Article 4 (4) discussed in Guidelines 26 to 39 above.

E. Application of a surcharge

68. In general the Roaming Regulation aims at the abolition of roaming surcharges. Nevertheless, BEREC identified two main cases where surcharges can be applied by roaming providers:

- Surcharges can be applied where regulated roaming retail services are being used in excess of any limits under any FUP in line with Article 6e (1) Roaming Regulation.
- Surcharges can be applied to ensure the sustainability of a roaming provider's domestic charging model. In this case the surcharge must be authorised by the competent NRA pursuant to an application by the roaming provider for authorisation to apply a surcharge (see chapter K).

Surcharges in excess of or non-compliance with Fair Use Policies

69. For the avoidance of doubt, there are several cases when a FUP under the conditions of the CIR is breached or a data volume limit is exceeded and the roaming provider is allowed to apply surcharges. These relate to the following situations:

- a. the customer does not have or does not want to provide documentary evidence of a normal residence or stable links (chapter D, Guidelines 20 to 25);
- b. the roaming provider has substantiated evidence that there is a risk of abusive or anomalous usage (chapter D, Guidelines 26 to 39);
- c. the data roaming usage exceeds the roaming data allowance for open data bundles (chapter D, Guidelines 41 to 58);
- d. the data usage exceeds the volume limit of roaming data calculated in accordance with Article 4 (3) associated with the remaining pre-paid credit of the customer (chapter D, as an alternative to the stable link and normal residence concept, Guidelines 59 to 67).

70. While the cases a. and b. of breaching the FUP may refer to imposing a roaming surcharge on any roaming service (voice, SMS messages and data), the exceeding of roaming data allowances in cases c. and d. can only lead to the imposing of roaming surcharges on data roaming retail services.

71. According to the Article 6 e 1 Roaming Regulation, in case of the application of surcharges regarding open data bundles and pre-paid offers, the roaming provider is allowed to apply a surcharge on data roaming retail services immediately after the roaming data allowance is exhausted.

72. In the case of non-compliance with the FUP, the applicable surcharges shall meet the requirements specified in Article 6 e (1) Roaming Regulation, namely:

- the level of surcharges for regulated roaming calls made, regulated roaming SMS messages sent and regulated data roaming services shall not exceed the maximum wholesale caps specified in Articles 7, 9 and 12 Roaming Regulation;
- the sum of the domestic retail price and any surcharge applied for regulated roaming calls made, regulated SMS messages sent or regulated data roaming

services shall not exceed 0.19 Euro per minute, 0.06 Euro per SMS message and 0.20 Euro per MB used, respectively; and

- any surcharge applied for regulated roaming calls received shall not exceed the weighted average of maximum mobile termination rates across the Union set out in accordance with paragraph 2,
- should the operator not apply a surcharge, the price caps laid down in Article 6 e (1) (b) Roaming Regulation do not apply.

No documentary evidence of residence or stable links

73. In case of a. (see Guideline 69) if a roaming provider requests and the customer does not provide documentary evidence proving that they are normally resident in or have stable links entailing a frequent and substantial presence in the Member State of that roaming provider (see Guidelines 20 to 25), the roaming provider can apply roaming surcharges for that customer's consumption of regulated retail roaming services.

74. For the avoidance of doubt, this would apply to all mobile roaming retail tariff plans, including open data bundles, and with the sole exception of pre-paid tariffs for which the roaming provider applies a data roaming volume limit in accordance with Article 4 (3) CIR (as an alternative to proof of stable link or normal residence).

75. The surcharges may apply to all mobile retail services (i.e. voice calls, SMS messages and data).

The roaming provider has substantiated evidence that there is a risk of abusive or anomalous use beyond periodic travelling

76. In case of b. (see Guideline 69) if a roaming provider has substantiated evidence that there is a risk of abusive or anomalous use (Guidelines 26 to 39) and after alerting its customer (Guidelines 123 to 129), the roaming provider may apply a surcharge, provided that the usage pattern has not changed.

77. For the avoidance of doubt, this applies to all types of mobile retail offers including open data bundles and pre-paid tariffs. In line with chapter D (Guideline 35) the surcharge may be applied to the retail roaming service(s) regarding which risk of abusive or anomalous usage has been detected.

The roaming provider has substantiated evidence that a number of SIM cards have been the object of organised resale

78. In accordance with Article 4 (5), when a roaming provider has substantiated evidence that a number of SIM cards have been the object of organised resale to persons not effectively residing in or having stable links in the Member State of the roaming provider (as discussed in Guideline 40), the roaming provider may take immediate proportionate measures in order to ensure compliance with all conditions of the underlying contract.

79. In such circumstances, the roaming provider shall notify to the NRA the evidence characterising the systematic abuse in question and the measure taken to ensure compliance with all conditions of the underlying contract at the latest at the same time as such measure are taken. In practice, the full detail behind such notifications, if and where needed, could take place on a monthly basis for reasons of practicality and to

enable the action to combat any such fraud to be prioritised. BEREC notes that there might be additional notification obligations under the Framework Directive in relation to network security issues.

80. BEREC considers that one of the measures that the roaming provider may apply to ensure compliance with the terms of the contract is the application of surcharges on retail roaming services.

81. For the avoidance of doubt, the above applies to all types of mobile retail offers, including open data bundles and pre-paid tariffs, as well as to all mobile retail roaming services.

Actual roaming data usage exceeds the minimum roaming data allowance for the open data bundle

82. In case of point c. (see Guideline 69) there are the following types of open data bundles, apart from unlimited tariffs:

- (i) for which the minimum roaming data allowance is greater than the domestic data allowance;
- (ii) for which the minimum roaming data allowance is lower than the domestic data allowance.

83. In case (i) where the minimum roaming data allowance (calculated in accordance with Article 4 (2) CIR) is greater than the domestic data allowance, roaming customers shall be able to consume roaming volumes at the domestic retail price to at least the full amount of the domestic data allowance. Once the domestic data allowance is exceeded the customer could either buy an add-on with additional volumes (then the same principle as for the basic tariff applies) or the domestic out-of-bundle price applies until the roaming data allowance is reached. Only after the roaming data allowance is exceeded, operators may apply a surcharge in addition to the domestic retail price.

84. In case (ii) where the minimum roaming data allowance (calculated in accordance with Article 4 (2) CIR) is lower than the domestic data allowance, the roaming customer shall be able to consume at the domestic retail price at least the roaming data allowance (in line with Guideline 55), which in this case will be lower than the domestic data allowance of the open bundle. A surcharge may be applied after the roaming data allowance is exhausted.

The actual roaming data usage exceeds the data roaming volume limit associated with the pre-paid credit of the customer.

85. In the case of d. (see Guideline 69) roaming surcharges may be applied to data roaming services by the roaming provider for volumes exceeding the limit of data roaming volumes calculated in accordance with Article 4 (3) CIR associated with the remaining credit of the customer.

86. For example a pre-paid customer has a remaining credit of 50 Euro (excl. VAT) when first starting to roam in a Member State of the EEA. The pre-paid tariff of the given customer includes a data unit price of 0.5 Euro cents (excl. VAT) per MB. In this example, the customer would be able to consume up to 10 GB of data domestically. Assuming a wholesale data cap of 7.7 Euro per GB, the roaming provider may limit

data roaming volumes for this customer to 6.49 GB in accordance with Article 4 (3). In this case, the roaming customer may consume up to 6.49 GB of data at the domestic retail prices. If that is the case, it would be debited by the amount of 32.45 Euro for that consumption of data roaming services (6.49 GB multiplied by 5 Euro per GB is equal to 32.45 Euro). For any consumption of data roaming exceeding 6.49 GB, the roaming provider may apply roaming surcharges.

F. Alternative tariffs

87. In accordance with Article 6e (3) Roaming Regulation, alternative tariffs are tariffs for regulated roaming services that can be offered in addition to the regulated tariffs set forth in Articles 6a, 6b and 6c Roaming Regulation.

88. BEREC considers that fixed periodic roaming tariffs (e.g. per diem tariffs) with a certain roaming allowance for a fixed charge are allowed during the transitional period, in accordance with the last subparagraph of Article 6e (1) subparagraph 4 Roaming Regulation and can also be offered as alternative tariffs instead of the regulated tariff after the transitional period once the RLAH regime comes into force.

89. According to Article 6 e (3) Roaming Regulation, roaming providers can offer alternative tariffs in addition to the regulated roaming tariff. These alternative tariffs can also include contractual conditions for roaming services that do not comply with the FUP criteria established in the CIR, in accordance with Article 4 (7) CIR.

90. BEREC considers that Article 6 e (3) Roaming Regulation gives any roaming provider the option to offer, and any customer the option to deliberately choose, a roaming tariff other than RLAH. If roaming customers explicitly decide to opt for an alternative tariff, they have to be informed (e.g. via SMS, via the monthly bill, etc.) about the nature of the roaming advantages which would thereby be lost. Alternative tariffs could be bundles of roaming services for a per-unit price, fixed periodic roaming tariffs, roaming allowances covering countries other than EEA countries, etc.

91. According to Article 6 e (3) subparagraph 3 Roaming Regulation, an alternative tariff cannot entail conditions or restrictions pertaining to elements of the subscription other than roaming. In other words, the alternative tariff may only affect the conditions of the roaming service offer within and outside the Union, and shall not affect other elements of the subscription (e.g. the price of the domestic subscription, other offers within the subscription such as for example handset subsidies, domestic service allowances, etc.). If the "alternative tariff" changed the conditions of the domestic tariff, the corresponding conditions of the RLAH-tariff would also change and this would not be compliant with Article 6e (3) subparagraph 3 and Article 6a Roaming Regulation. A declaration of the domestic tariff as an "alternative tariff" does not change the principle of RLAH.

92. The purchase of an add-on to be able to consume additional volumes will similarly generate a new minimum available fair use volume of regulated data roaming services, subject to rules on open data bundles applied to this new add-on and will not automatically lead to the conclusion that the customer has chosen an alternative tariff.

93. According to Article 14 (3), subparagraph 2 Roaming Regulation, roaming providers shall send a reminder at reasonable intervals thereafter to all customers who

have opted for an alternative tariff. BEREC considers that every 12 months would constitute a reasonable interval, or any other shorter period associated with an earlier contract renewal or revision.

G. Transfer between roaming tariffs

94. According to Article 6 e (3) Roaming Regulation, roaming providers must apply the tariffs set in accordance with Articles 6 a, 6 b and 6 c Roaming Regulation (i.e. RLAH) to all existing and new roaming customers (subject to the stable link and normal residence provisions in accordance with Article 4 (1) CIR) automatically. Similar to the provisions set out in the Roaming Regulation, roaming providers may however offer other tariffs for regulated roaming services as an alternative to RLAH and customers may deliberately choose those alternative tariffs. Given that fixed periodic roaming tariffs are considered as alternative tariffs when the RLAH regime comes into force, consumers should be given the opportunity to deliberately choose to stay on these tariffs. Otherwise roaming providers shall apply RLAH automatically to their roaming customers with alternative tariffs who did not explicitly consent to remaining on their existing alternative tariffs.

95. A switch from or to a regulated roaming tariff set according to Articles 6 a, 6 b and 6 c Roaming Regulation to or from an alternative tariff is covered by Article 6 e (3), subparagraph 3 Roaming Regulation. Switching has to be made free of charge, within one working day and shall not entail conditions or restrictions pertaining to elements of the subscriptions other than roaming (for instance, a lower domestic data allowance or a higher domestic price). A roaming provider may delay a switch until the previous tariff applied when roaming has been effective for a minimum specified period not exceeding two months.

96. BEREC considers that once RLAH enters into force, customers may decide to remain on their alternative tariff provided that they are duly informed by their roaming provider about the available options and the nature of the roaming advantages that would be lost by remaining on or switching to an alternative tariff (as opposed to switching to a RLAH-enabled offer). Such information should be provided by the roaming provider to the roaming customer (e.g. via SMS or monthly bill). In the case of customers on alternative tariffs, roaming providers should provide this information to these roaming customers in good time in advance of the entry into force of the RLAH regime (for example, two weeks in advance of the entry into force), in order to allow sufficient time for the customer to make an informed decision. BEREC considers that roaming customers should deliberately choose to remain on (or switch to) an alternative tariff. Operators must provide the possibility to switch between regulated and alternative roaming tariffs at any point in time, within one working day and free of charge.

97. Should operators make changes to their roaming tariffs which are not required to comply with the provisions of the Roaming Regulation, customers are entitled to withdraw from their contracts in accordance with the Universal Service Directive and/or the national legislation.

H. Transparency and control mechanism

98. All terms and conditions associated with a regulated retail roaming service, including a FUP should, according to Article 6 e (4) Roaming Regulation and Article 5 CIR, be included in contracts with roaming customers. This includes all terms and conditions relating to requests of proof of normal residence or stable links pursuant to Article 4 (1) CIR.

99. BEREC considers that the information specified in Article 6 e (4), subparagraph 1 Roaming Regulation should be provided in contracts that include any regulated retail roaming services, in a clear and understandable way taking into account obligations in national legislation regarding communications services contracts. BEREC considers that the above mentioned information should be personalised and indicate clearly the pricing of the regulated retail roaming services which are applied to the specific customer and which the customer has subscribed to. It should also be published, according to Article 6 e (4) (b) Roaming Regulation, on the website of the provider or in another appropriate way. Additionally, roaming providers should publish the information set out in Article 6 e (1) Roaming Regulation about the maximum charges in excess of the FUP.

100. Pursuant to Article 6 e (4) Roaming Regulation operators must provide in the contracts information about any restrictions imposed on regulated roaming data volumes provided at the domestic retail price. This must be provided in a clear and accessible manner. Provided that the national legal provisions do not require more detailed information to be included in the contract, BEREC considers that operators could also provide the information on the actual roaming data allowance in other simple and easy accessible ways (e.g. via mobile app, via the client area of the website) than the contract, provided that the contract specifies how that limit shall be determined, together with other pricing information for the actual subscription. The roaming data allowance must be updated each time the retail price for the subscription changes and each time the regulated maximum wholesale data roaming cap changes.

101. Pre-paid tariffs may entail challenges with regard to informing customers about the data volumes available at domestic prices as a function of remaining credit as specified in Article 4 (3) CIR. The main principles for calculating the available volume should be described in a clear manner and may be illustrated by setting out the volumes available for specific amounts of credit (such as volume available for one or ten Euro of credit).

102. The criteria applied by a roaming provider as objective indicators to prevent the risk of abusive or anomalous usage in accordance with Article 4 (4) CIR should be spelt out in advance in the contract which includes the FUP as stipulated in Article 5 (1) CIR. The contract should include:

- a description of the objective criteria applied, that is, the grounds on which the provider may issue an alert and apply a surcharge pursuant to Article 5 (3) and (4) of the CIR, including:
 - definition and duration of the observation window;

- information how consumption and presence are calculated for the purpose of imposing any surcharge (including to which mobile retail service(s) the consumption indicator relates, 4 (4) subparagraph 4 CIR);
 - the fact that the observation window is being followed by an alert by the roaming provider, the possibility for the roaming customer to change their usage pattern within an alert period by demonstrating actual domestic consumption or presence to avoid the surcharge (in line with Article 5 (4) CIR);
- a description of the procedure that the roaming customer shall follow to submit complaints as provided in Article 5 (1) CIR;
 - a description of the criteria for ceasing to apply a surcharge (pursuant to Article 5 (5) CIR).

103. The roaming provider shall put in place transparent, simple and efficient procedures to address customer complaints relating to the application of a FUP (pursuant to Article 5 (1)). The customer should be able to quickly and easily get in contact with the provider, especially when the provider has issued an alert and later when the roaming services used by the customer are being surcharged. BEREC considers that the operator should provide alternative interfaces for consumer complaints of this kind like chats, call centres, email etc. Such interfaces should make it simple for customers to provide evidence that the alert is not based on correct or complete information and to provide evidence that they are not using the services for purposes other than periodic travel.

104. Any FUP for regulated roaming services shall, according to Article 5 (2) CIR, be notified to the NRA. The roaming provider should send full information on the FUP to the NRA either in advance of implementation or, at the latest, immediately after the FUP becomes applicable.

105. If an operator detects that its SIM cards are being part of organised resale to users that do not qualify for RLAH, immediate actions could be taken according to Article 4 (5) CIR and chapter D. Any measures taken must be outlined and reported by the operator to the domestic NRA, along with a description of the type of evidence the operator has for the systematic abuse in question. Such notification shall be made at the latest at the same time as such measure is taken (Article 5 (6) CIR).

a) *Basic personalised pricing information: voice, SMS and data*

106. Unless they have opted not to receive basic personalised pricing information, all customers are entitled to receive an automatic message providing such information when the customer enters the visited country. The automatic message including basic roaming information should be personalized to that customer (Articles 14 and 15 Roaming Regulation). Personalised information should also be sent to customers with alternative tariffs.

107. Even if the operator does not apply a surcharge, BEREC considers that the customers must receive a personalized automatic message containing information of the conditions applied for the use of retail roaming services by the specific customer. The roaming provider should send the information at the moment when the customer

enters the visited country. For data roaming, the information must be sent to the customer's mobile device, irrespective of the type and the form of the device (legacy phone, smartphone, tablet or a laptop with a dongle). For this service the means of sending the information could be for example via SMS message, e-mail or a pop-up window. The information for data roaming shall be delivered to the roaming customer's mobile device every time the roaming customer enters a Member State of the EEA other than that of his domestic provider and when the customer initiates a data roaming service in that particular country for the first time (see Guideline 115). The information should be delivered 'by an appropriate means adapted to facilitate its receipt and easy comprehension' (Article 15 (2) Roaming Regulation) and BEREC considers it important to pay attention that such information should be delivered 'in such a manner as to enable easy access to it at a later moment' (Recital 85 Roaming Regulation). The information must be provided in a way that does not require the customer to use a paid data roaming service in order to access it. This could be managed via SMS or a free-of-charge landing page or any other means. The information above shall also be sent to roaming customers travelling outside the EEA.

108. The following basic information must be provided to roaming customers (where applicable in the currency of the home bill):

- the fact that the domestic retail price applies (if necessary, also information making the customer aware that calls and SMS will be charged on off-net tariffs) or the applicable roaming prices which apply outside the EEA;
- information on the FUP the roaming customer is subject to and any surcharges which apply in excess of the FUP (only within the EEA, including VAT);
- a free-of-charge number from which the customer can obtain more detailed personalised information on regulated and unregulated voice calls, SMS messages, or data roaming services (including MMS), information on the application of the FUP and any surcharging and information on the transparency measures in the Roaming Regulation, by means of a voice call or an SMS messages;
- the possibility of accessing the emergency services by dialling 112 free of charge (only within the EEA).

109. Regarding the FUP, operators must provide information about the roaming data allowance if the customer is subject to such a limit (in the case of open bundles and pre-paid tariffs including the specific roaming data allowance in MB or GB) for open bundles. For pre-paid tariffs, the absolute roaming data allowance is affected by the consumption of calls and SMS, so more general information laying down that a fair use limit might apply depending on the consumption and followed by a link to where the customer can find more relevant information, could be preferable. Additional information on control mechanisms etc. could be provided via a free accessible landing page or a webpage.

110. Operators are encouraged to include additional information such as the domestic charge which applies to the specific customer according to the applicable tariff plan, whether the receipt of voicemail messages outside the EEA incurs a charge (and what it is) and charging intervals if they are different when roaming in the EEA.

111. Customers have the possibility to opt out of receiving information on the charges for regulated roaming services as well as the right, at any time and free of charge, to require the roaming provider to provide the information again. BEREC notes that roaming providers will also continue to be required to provide certain information to customers roaming outside the EEA.

When should the basic information be provided?

112. Providers are required to send the basic personalised pricing information to the customer '*without undue delay and free of charge*' when they connect for the first time to a network other than that of their home provider when travelling abroad (Article 14 Roaming Regulation) or each time a customer crosses a border of a country outside the EEA.

113. This ensures that customers are informed of the roaming charges before they use those roaming services. New information is not required to be sent when the customer continues travelling to another country within the EEA. Full information on the applicable roaming charges for voice and SMS must be provided to all roaming customers by roaming providers when subscriptions are taken out.

114. Roaming providers must also provide their roaming customers with updates on applicable roaming charges or prices without undue delay each time there is a change in accordance with Article 14 (3) Roaming Regulation. This means that the full information on applicable charges must be provided before a contract commences and each time a roaming provider makes changes to its roaming pricing, including when it is required by national law.

115. In addition, pursuant to Article 15 (2) Roaming Regulation, information on data roaming, which includes MMS, should be delivered every time the roaming customer connects to a visited network and, for the first time, initiates a data roaming service in that visited country, i.e. when the customer continues travelling from one visited country to another, such tariff information is required to be sent to the customer again unless the prices are the same. BEREC understands that this provision requires only notifying the customer once when the customer enters another visited country. According to Recital 73 Roaming Regulation roaming providers should not charge the roaming customer for any regulated data roaming service, unless and until the roaming customer accepts the provision of the service.

116. For users of laptops with dongles or similar devices, connection to the visited network and initiation of the data roaming session are simultaneous. The domestic network is only able to tell that the user has connected to a visited network when the data roaming session is started. Therefore, the roaming provider should send one message to provide all of the required information. This could for instance be provided free of charge on a landing page (displaying price information) that opens when a data roaming session is initiated and before any data transfer (that is subject to a charge or a FUP) takes place.

117. A connection to the visited network and initiation of a data roaming session are not necessarily simultaneous as customers may use voice and SMS services but connect to data roaming at a later stage, if at all. In all cases, customers have to be informed as soon as their handsets connect to a visited network and subsequently as soon as they first initiate data roaming.

118. There is no requirement for further messages to be sent if, during a visit, the network the customer connects to changes but is in the same Member State.

119. Where a customer contacts their home provider requesting further detailed information, the provider should ensure that the information on the prices of roaming voice calls and SMS (Article 14 (2) Roaming Regulation) is immediately available for that customer, regardless of the time of day. If using automated machines to comply with this obligation, the home provider should ensure that the customer can access the required personalised information speedily and easily. In addition, in line with Article 14, paragraph 2 of the Roaming Regulation, any such contact by a customer to its provider, should be free of charge.

120. Furthermore, if contacted via SMS, it would be reasonable for the roaming provider to send only essential personalised pricing information, applying to voice calls, SMS and data services (including MMS), to its customers where the details of charges are complex. In this case, the roaming provider should make reference in its SMS message to the free-of-charge number designated for voice calls to obtain additional information. Additionally, a free accessible landing page or webpage could be supplied.

121. Customers should be able to monitor, control and give their consent to any expenditure. With regard to data roaming, Article 15 (1) Roaming Regulation requires providers to ensure that their roaming customers are kept adequately informed of data roaming charges both before and after the conclusion/agreement of a contract in ways that facilitate the customers' understanding of the financial consequences of their use and enable them to monitor and control their expenditure on regulated data roaming services. BEREC considers that every 12 months would constitute a reasonable interval, or any other shorter period associated with a contract renewal or revision. The Roaming Regulation also provides that, where appropriate, providers shall inform their customers before the conclusion/agreement of a contract, and on a regular basis thereafter, of the risk of automated and uncontrolled data roaming connections and downloads. They must also explain, free of charge and in a clear and easily understandable manner, how to switch off automatic data roaming to avoid uncontrolled consumption of data roaming services. Operators may meet these requirements by providing clear and easily accessible information in their terms and conditions for the service on their website and/or in other literature.

b) Notification on consumption within a FUP concerning a volume limit on data

122. Pursuant to Article 15 (2) (a) Roaming Regulation the roaming provider shall send a notification to the roaming customer when the applicable fair use volume of data roaming services is fully consumed or any usage threshold applied in accordance with Article 6c is reached. The notification must indicate the surcharge that will be applied to any additional consumption of regulated data roaming services by the roaming customer. Each customer must have the right to require the roaming provider to stop sending such notifications and shall have the right, at any time and free of charge, to require the roaming provider to provide the service again.

c) Alerting the customer of a pending surcharge based on the objective indicators

123. The roaming provider shall alert the customer before applying any surcharge on the basis of the objective indicators set out in Article 4 (4) and (5) CIR. The roaming provider must inform the customer of an alert period no shorter than two weeks, and in the absence of a change in the usage pattern within that alert period, the provider may apply a surcharge for any further use after the date of the alert (Article 5 (4) CIR). The surcharge, which is subject to Article 6e Roaming Regulation, should be specified in the alert. If the usage pattern does not change within the alert period, the provider may apply a surcharge to any further use during and after the alert period, beginning after the date of the alert, in accordance with the terms of the applicable FUP and the customer should be informed when surcharging begins. BEREC considers it good practice not to bill the surcharge (in case a billing period ends during the alert period) until after the alert period ends and no relevant change in the usage pattern has been observed. That way there is no need for the operator to refund already billed surcharges in the event that the usage pattern of the customer did change after the bill was sent or in the event of a dispute between the operator and the customer was resolved in favour of the latter.

124. Following the roaming provider's alert, the roaming customer may seek to clarify or contest the roaming provider's conclusion that there is a risk of abusive or anomalous use of roaming services beyond periodic travelling, in accordance with the complaints procedures relating to the application of its FUP that the roaming provider shall put in place and via any dispute resolution procedures established in the Member State of the roaming provider, as stipulated in Article 5 (1) CIR. Such complaint mechanism and dispute resolution procedures shall permit the roaming customer to provide evidence that they are not using the regulated roaming retail services for purposes other than periodic travel, in response to the roaming provider's alert.

125. In accordance with Article 5 (3) subparagraph 2 CIR, where the risk of abusive or anomalous use results from the non-fulfilment of both the prevailing domestic consumption and the prevailing domestic presence over the at least four-month long observation window, the resolution of such complaint or dispute shall take into account additional indications of risk arising from the overall non-domestic presence or usage of the roaming customer. For example, a case where the non-domestic presence and usage of the roaming customer is only slightly in excess of 50% over the observation window, and the roaming customer provides substantial evidence covering a longer period, including the future, of residence in or stable links with the country of the roaming provider, could be assessed differently to one where the roaming customer has spent by far the greater part of the observation window abroad and submits little or no additional evidence.

126. In line with chapter D (Guideline 35) and E, the surcharge may be applied to the retail roaming service(s) regarding which risk of abusive or anomalous usage has been detected.

127. BEREC notes that the minimum alert period of two weeks also applies when the alert is based on the other objective indicators discussed in Guidelines 36 to 39.

128. BEREC considers that the change required in the usage pattern within the alert period to prevent the operator from applying the surcharge must address the observed

risk of abusive or anomalous use on the basis of which the customer was alerted. BEREC generally considers as a change of usage pattern if the customer fulfils the prevailing domestic consumption or prevailing domestic presence criteria with regard to the alert period of at least two weeks.

129. According to Article 5 (5) CIR, surcharging on the basis of risk of abusive or anomalous use must end as soon as the customer's usage no longer indicates a risk based on the objective indicators referred to in Article 4 (4) CIR. The operator must cease to apply the surcharges as soon as either one of the prevalence (presence or consumption) criteria are fulfilled. To establish such a change in the usage pattern and for the operator to be confident that there is a clear indication of no risk of abusive or anomalous use after the alert period, the operator should continue to monitor the customer's consumption and presence in the same manner as it did until prior to the alert.

d) Financial or volume limit on data roaming consumption

130. Article 15 (3) Roaming Regulation requires providers to make available to their customers one or more maximum financial or volume limits on data roaming use during an agreed specified period, subject to the customer's consent to continue ("cut-off mechanism"). This is intended to enable customers to avoid running up bills that are higher than intended or expected. 'Customer' is not defined in the Regulation. BEREC considers that providers may construe it to mean the contracting party or an individual SIM holder (who may not be the same person in the case of corporate or family contracts, for example). Providers must make clear (e.g. in the contract, on the website and in other appropriate ways) who the cut-off limit applies to, i.e. the contracting party or individual SIM card holders.

131. The implementation of RLAH will minimize the risk of bill-shock for most customers roaming in the EEA. Customers who pay in advance for a fixed, pre-defined non-recurring sum and non-recurring duration, after which the data session ends unless and until the customers give their express consent to resume data access, are automatically protected from bill-shock both in their home country and abroad, and there is no need to make special arrangements for them. This meets the policy intention behind the cut-off limit, because consumers are unable to spend more than they have consented to before starting the connection, thus giving them control.

132. BEREC considers the following cases to be suitable for a cut-off limit:

- use of post- and pre-paid metered roaming tariffs inside and outside the EEA⁷.
- when a surcharge is applied to the domestic price according to chapter E.

133. BEREC considers it good practice to notify the customers when they reach the limit of the domestic bundle. This notification should also be given to the customer when reaching the default limit while roaming.

134. Roaming providers must apply the default financial limit or default volume limit automatically to all customers who have not already chosen a specific different limit. It is considered good practice that providers explain, on their website and in other

⁷ According to Article 15 (6) Roaming Regulation, these safeguard mechanisms also apply to data roaming services used by roaming customers travelling outside the EEA.

literature or by other means, how the cut-off mechanism will work including how to consent to use in excess of the limit if wished, and what will happen to any data in the course of being downloaded if the customer does not wish to continue use when the limit is reached. BEREC considers it good practice that customers who have permanently opted out of the cut-off limit are provided with information on their consumption on a regular basis to prevent them from bill shocks.

135. The default financial limit must be close to, but not exceed 50 Euro of outstanding charges per monthly billing period (excluding VAT). The default volume limit must have a corresponding financial limit not exceeding 50 Euro of outstanding charges per monthly billing period (excluding VAT) which should automatically refresh every billing period. For the default financial limit, providers must make the customer aware of the corresponding amount in volume terms in advance. Note that the limit relates to the accumulated expenditure per specified period, and not per data session.

136. BEREC understands that 'monthly billing period' may refer to a calendar month or another specified monthly period in which the service gets billed.

137. This financial limit of 50 Euro excluding VAT of outstanding charges per monthly billing period should be calculated cumulatively by the roaming provider in the case the roaming customer travels several times within the same period and potentially in different countries, including countries outside the EEA.

138. BEREC understands that the European institutions intended that the financial or volume limit must be made available to customers with both post-paid and pre-paid tariffs.

139. In addition, providers may make available one or more other, higher or lower, financial or volume limit(s) for other specified periods of use (i.e. not necessarily per month, for example a daily or weekly limit could be offered); again provided the customer is made aware in advance of the corresponding volume or financial amount, respectively.

140. BEREC notes that MMS are included in the definition of 'regulated data roaming service' according to Article 2 (2) (m) Roaming Regulation, and are not explicitly excluded from the scope of Article 15 (3) Roaming Regulation, when provided as a metered service. Providers should ensure that consumers are informed about how any MMS expenditure is charged and controlled.

141. When a financial or volume limit is in operation, the Roaming Regulation requires providers to send the customer a warning when they have consumed 80% of that limit. The overall policy aim of the limit is to enable customers to monitor and control their expenditure. BEREC understands that the type of handset or other device, data service, and content can all affect the speed with which the notification can be sent, and with which it can be received and acted upon by the customer. BEREC considers that providers should set up the sending of notifications so that the customer has time to use the notification to make an informed decision about their expenditure before the final limit is reached. In cases where there is a variation from 80%, providers should seek, as a matter of good practice, to ensure that the customers receive the message before they reach 80% of their limit rather than after.

142. Although the Roaming Regulation does not prescribe how the warning has to be sent to the customer's handset or other device, it must be 'appropriate' for example by an SMS message, an e-mail or a pop-up window on the computer (Article 15 (3) Roaming Regulation). BEREC considers that customers should be provided with the means that will maximise their chances of receiving and being able to act upon the notification if they wish to continue to use data beyond the limit bearing in mind the device and type of data service used.

143. BEREC expects that providers will wish to provide customer information on how to continue using data services when the 80% warning notification is sent in order to give consumers more time to plan and control their use and expenditure. Providers may also wish to indicate what will happen to any data in the course of being downloaded when the time limit is reached, if the customer does not wish to continue use beyond that point. If the customer decides to authorise data use beyond the financial or volume limit, in response to the 80% notification, the original limit will be superseded and it is no longer relevant to send a notification at the end of the original limit for the applicable specified billing period. BEREC considers that the consent of a customer is given only for the specified billing period.

144. Customers can require, free of charge, their provider to stop sending such notifications, or to start again.

145. When the agreed financial or volume limit is reached, the provider is required to send another notification to the customer's mobile handset or other device. The notification must indicate how to continue using data services, if the customer wants to, and the cost of any additional data units consumed in the specified billing period. If the customer does not respond as indicated, the provider must immediately 'cease to provide and to charge the roaming customer for regulated data roaming services, unless and until the customer requests the continued or renewed provision of those services' (Article 15 (3) Roaming Regulation) for the specified billing period.

146. Some providers have expressed concern that this provision requires them to de-authorise all data roaming services for the customer concerned. The customer would then be required to contact customer services to request re-authorisation of data roaming, which could take a short or a significant amount of time to process. All data in the process of being downloaded or uploaded when the limit was reached would be lost. BEREC considers that the policy intention is not for data roaming services to be de-authorised or for consumers to have to enter into a burdensome or lengthy process to resume data roaming use.

147. In all cases, charging should cease when the limit is reached, unless the customer has responded in due time that they do not wish the cut-off to be activated. Regarding the data connection, BEREC encourages providers, where possible, to maintain this for a reasonable period after the limit is reached, to give most customers adequate time to receive and respond to the notification, for example by suspending the connection or slowing speed down significantly. Depending on the type of device, data service and content, there may be a delay in the customer's reply, especially where the means of sending the notification does not interrupt the data session itself, for example where an SMS is sent to a mobile handset, as opposed to a pop-up window. If the customer indicates that he or she does not want to continue the data session or remains silent throughout the "reasonable period" for a response, BEREC

encourages operators to facilitate any subsequent connection to the greatest extent possible, once the customer gives their consent to resume use. BEREC also expects that providers will make technically feasible efforts to preserve any data that was in the course of being downloaded for a reasonable period after the limit is reached, so as to allow the customer to resume the download.

148. Lastly, Recital 88 Roaming Regulation says that the above measures should be seen as ‘minimum safeguards for roaming customers’, and do not prevent providers from offering additional transparency and bill control measures like flat-rate offers or real-time information on data consumption, which BEREC also encourages.

I. NRA tasks with regard to the FUP / dispute resolution

149. In accordance with Article 5 (2) CIR, the roaming provider shall notify any FUP to the NRA. The roaming provider should send full information on the FUP to the NRA either in advance of implementation or, at the latest, after the FUP becomes applicable. BEREC considers that this obligation does not imply NRAs to formally approve the FUP in terms of a pre-authorisation with a formal decision. However, BEREC is of the opinion that the supervision and enforcement provisions set out in Articles 16 and 6 (d) (5) Roaming Regulation are without prejudice to the aforementioned. Therefore, the NRAs may want to examine whether the notified FUP is in compliance with the provisions set out in the CIR. Accordingly, NRAs may want to impose measures according to Articles 16 (5) and (6) Roaming Regulation and intervene on their own initiative in order to ensure compliance with the Regulation. Should NRAs find that a breach of the obligations set out in the Roaming Regulation has occurred, it shall have the power to require the immediate cessation of such a breach.

150. With regard to notifying the NRA on organized resale and the measures to be taken pursuant to Article 5 (6) CIR, the roaming provider must notify both the evidence of organised resale and the measures that are taken by the roaming provider at the same time. In cases where a roaming provider establishes that such an abuse is occurring, it shall notify to the NRA the evidence characterising the systematic abuse in question and the measure taken to ensure compliance with all conditions of the underlying contract at the latest at the time such measures are taken. BEREC considers that there may be individual cases that could possibly require detailed analysis by the relevant NRA.

151. With regard to the dispute resolution procedure in accordance with Article 34 of Directive 2002/22 EC (Universal Service Directive, USD), the Roaming Regulation grants the customer the right to avail itself of transparent, simple, fair and prompt out-of-court dispute resolution procedures (pursuant to Article 17 (2) Roaming Regulation) established in the Member State of the roaming provider in accordance with Article 34 of the USD. In accordance with Article 5 (3) CIR, as part of these proceedings, the roaming customer has the opportunity to provide evidence contesting any finding by the roaming provider of abusive or anomalous use of regulated retail roaming services for purposes other than periodic travel after it has sent an alert to the roaming customer. BEREC considers that it would be best practice for the roaming provider not to effectively impose surcharges (e.g. by inclusion of the charges in the monthly bill) on a customer that has initiated a complaint or dispute until it is resolved.

J. Charging intervals

152. The Roaming Regulation provides maximum charging intervals for regulated wholesale and retail roaming voice calls and data sessions.

153. Article 6e (1) subparagraph 3 Roaming Regulation may not be clear as to whether the per-second and per-kilobyte (respectively, for voice calls and data services) charging interval shall be applied to both the domestic retail price component and the roaming surcharge or only to the roaming surcharge. The intention of the Roaming Regulation is to have the same prices for roaming and domestic retail services. However, applying the regulated charging interval to the domestic price component of a roaming tariff may force operators to apply different charging intervals for retail roaming services and domestic retail services. BEREC therefore considers that operators should be allowed to apply the charging intervals laid down in Article 6e (1), subparagraph 3 Roaming Regulation only to the roaming surcharges in order to achieve RLAH pricing. Nevertheless, operators could also apply the same charging intervals to the domestic component as the price for retail roaming service.

154. Similarly, operators can decide to apply the charging intervals according to Article 6e (1) subparagraph 3 Roaming Regulation also to the domestic component as the price for the retail roaming service, even where no surcharge is applied.

155. SMS must be billed per message at the wholesale and retail level. According to Article 11 and Recital 70, a roaming SMS message must have the same technical parameters as a domestic SMS message.

K. Sustainability

156. According to Article 6c Roaming Regulation, in specific and exceptional circumstances, with a view to ensuring the sustainability of its domestic charging model, a roaming provider may apply for authorisation to apply a surcharge. The CIR lays down detailed rules on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment.

a) Deadlines

157. In order for NRAs to be able to grant an authorization to apply a roaming surcharge already on the first day of the abolition of retail roaming surcharges on 15 June 2017, the roaming provider should inform the NRA in advance and exchange the necessary information with the NRA prior to that date. In order to avoid the risk of not being granted sustainability surcharges on 15 June 2017, the first application must include all necessary data and must be submitted to the NRA at the latest one month before 15 June 2017. In case the NRA, after examining the information provided, reaches the conclusion that surcharges could be authorized, it shall inform the operator.

158. Taking into account that the surcharge application is envisaged only on and after 15 June 2017, the earliest date when NRAs can grant an authorisation is 15 June 2017.

159. The sustainability surcharges should be granted for a period of 12 months. In order to renew the authorisation, the roaming provider must update the information and submit it to the NRA every 12 months pursuant to Article 6c (2) the Roaming Regulation. NRAs shall authorize the surcharge within one month of receipt of an application, unless the application is manifestly unfounded or provides insufficient information, in which case NRAs shall take a final decision within a further period of two months. During this period, the NRA should give the roaming provider the opportunity to be heard, and should make a final decision authorizing, amending or refusing the surcharge proposed by the roaming provider.

160. In case of an authorisation, operators which wish to apply surcharges should comply with transparency rules (i.e. advanced publication of price changes, contractual issues that require an extraordinary right to terminate contracts) both at national level and in the Roaming Regulation.

b) Requirements to apply for a derogation

161. An operator applying for an authorisation to apply roaming surcharges has to submit its estimated roaming retail net margin over a period of 12 months starting at the earliest on 15 June 2017. Its projected roaming retail net margin, in case it is negative, will be compared to its projected mobile services margin. In case the absolute value of the roaming retail net margin is equivalent to 3% or more of the mobile services margin, the NRA will examine the specific circumstances mentioned in Article 10 (2) CIR in order to conclude whether a surcharge on regulated roaming services should be authorized. According to the definition of Article 2 (2) (f) CIR, mobile services margin means earnings, before interest tax depreciation and amortization, from the sale of mobile services other than retail roaming services. For the case of operators offering both retail and wholesale mobile services, revenues and costs for both retail and wholesale services need to be captured in the mobile services margin estimation (for the avoidance of doubt, these would exclude retail roaming services).

162. The roaming retail net margin is the amount remaining after the costs of providing regulated retail roaming services are deducted from the revenues from providing such services. Cost and revenues should be determined according to the provisions of Articles 7, 8 and 9 CIR. According to Article 6 (2) CIR, any data on the applicant's costs and revenues shall be based on financial accounts, which shall be made available to the NRA and may be adjusted according to volume estimates pursuant to Article 6 (1) CIR. Where costs are projected, deviations from figures resulting from past financial accounts shall be considered only if supported by proof of financial commitments for the period covered by the projections. For the determination of the roaming retail net margin, revenues and costs should be estimated with regard to all regulated retail roaming services and not only to a few selected tariffs. The applicant shall provide all necessary actual and projected data that it has used to determine the projected mobile services margin and the overall actual and projected costs and revenues of providing regulated roaming services over the relevant period (actual and projected 12-month period for which the application is filed).

163. Regarding the actual data, as it is common practice among mobile operators to publish financial information every quarter, it may be more appropriate to submit actual data on costs and revenues for a 12-month period ending at one of the four quarters of the year. For example if an application is submitted in May 2017, actual data for the period 1 April 2016 to 31 March 2017, if available, should be submitted. If actual data for the period 1 April 2016 to 31 March 2017 is not available, then actual data for the period of 1 January 2016 to 31 December 2016 needs to be submitted. The same holds respectively if actual data for the period 1 January 2016 to 31 December 2016 or for the most recent period is not available. In case the application examination period is extended by two months, according to the provisions of Article 6 c (4) Roaming Regulation, and in the meantime more recent actual data becomes available, the applicant may include in its application this additional actual data. Regarding the projected data, the applicant should submit, in addition to the outcome of its projection, the inputs used to derive such projections and details of its projection methodology. BEREC provides a list of items that an NRA could consider requesting to examine the sustainability of the domestic charging model:

- The template of Annex I (if needed the template could be modified by NRAs), filled in accordingly by the applicant, could be envisaged. The template covers the following actual and projected data/information:
 - output of the formulas included in Annex II CIR
 - data used for the calculation of the formulas included in Annex II CIR
 - costs provided for by Articles 7 and 8 CIR
 - revenues according to Article 9 CIR
 - calculation of the roaming retail net margin based on the previous calculations on costs and revenues
 - calculation of mobile services margin (EBITDA)
 - additional information according to Article 10 (2) CIR
- For every projection (i.e. every line in the templates) details on the projection methodology used, referring to proof of financial commitment (if required).
- General ledger balances covering the transactions during the “actual” period, including the allocation of the amounts in the financial accounts to the applicant’s cost centres (i.e. parts of the organization to which the costs are attributed for accounting purposes).
- Details on the link/allocation between the figures in the financial accounts and the figures in the templates.

164. An NRA may also require from the applicant an accountant’s declaration that the data is correctly drawn from its business systems and that the methodology for the projections has been followed consistently and correctly.

165. According to the definition in Article 2 (f) CIR the EBITDA for mobile services should be calculated by ignoring the costs and revenues from retail roaming services. In case an operator encounters difficulties in calculating the mobile services margin (i.e. the EBITDA) it may consider subtracting the roaming retail net margin calculated

according to Articles 6, 7 and 8 CIR from the EBITDA of all mobile services provided by the operator as a good proxy for the mobile services margin. In doing this, the applicant should not estimate the EBITDA of mobile services in such a way that it would result in a circumvention of the methodology described in Articles 6, 7 and 8 CIR to estimate the costs and revenues (and ultimately the net margin) of roaming services.

166. Taking into account Guideline 175, the applicant should also submit information on the level and the distribution of the roaming surcharges it proposes to apply in order to ensure the sustainability of its domestic charging model having regard to the fact that the level of the surcharges do not go beyond cost recovery.

c) Assessment of the application

167. In order to ensure the sustainability of its domestic charging model, the NRA may conclude that the applicant is unable to recover its costs of providing regulated retail roaming services, with the effect that the sustainability of its domestic charging model would be undermined, only where the negative roaming retail net margin of the applicant is equivalent to 3% or more of its mobile services margin pursuant to Article 10 (1) CIR or in case of a negative mobile service margin.

168. The roaming retail net margin shall be the amount remaining after the costs of providing regulated retail roaming services are deducted from the revenues from providing such services using the approach described in Articles 7, 8 and 9 CIR. In this regard, the NRA must review the approach used in the application to determine the roaming retail net margin to ensure compliance with the methodology for determining costs and revenues, as laid down in Articles 7, 8 and 9 CIR.

169. Should the absolute value of the roaming retail net margin be equivalent to 3% or more of the mobile services margin, the NRA can refuse the surcharge where in specific circumstances there is proof of a sustainable domestic charging model. Such circumstances include situations described in Article 10 CIR.

170. First, NRAs should examine if an applicant is part of a group and the approach used in its application suggests that there is internal transfer pricing from/to other subsidiaries of the group in other Member States, in particular in view of a substantial imbalance of wholesale roaming charges applied within the group. In such cases the NRA may conclude that the share of costs attributed to the applicant is disproportionately large (when compared to other subsidiaries of the group) and the NRA may refuse to grant the possibility of applying sustainability surcharges. Second, the NRA should examine the degree of competition in domestic markets in order to assess whether the level of profit margins are such that companies in the domestic market are more likely to absorb the negative roaming retail margin than to increase domestic prices. Third, the NRAs shall make sure that any assumptions made in the application do not go beyond what is necessary to meet the FUP conditions set out in the CIR. As FUP conditions may limit the losses of the applicant, an operator's application cannot ground its roaming losses on the basis of a FUP that is more generous (e.g. offering unlimited data roaming and/or not asking for proof of stable links) than what is necessary to meet the FUP conditions in the CIR. In such cases, the NRAs shall refuse the surcharge.

d) Level and distribution of surcharges to ensure the sustainability of RLAH

171. When authorizing the surcharge on regulated roaming services, the final decision of the NRA shall identify the amount of the ascertained negative retail roaming margin that may be recovered through the application of a retail surcharge on roaming services provided within the EEA. If the authorisation to apply surcharges is granted by the competent NRA, roaming providers could apply surcharges on mobile retail roaming services for a period of 12 months unless the NRA requires changes to the surcharge pursuant to Article 6d (5) Roaming Regulation.

172. Article 10 (4) CIR stipulates that the surcharge should be consistent with the roaming traffic assumptions underpinning the assessment of the application and be set in accordance with the principles set out in Article 8 of Directive 2002/21/EC of the European Parliament and of the Council.

173. In addition, Recital 23 Roaming Regulation stipulates that roaming providers, upon authorization by the NRA, should be able to apply a surcharge to the regulated retail roaming services only to the extent necessary to recover all relevant costs of providing such services. In this line, Article 6 c (1) Roaming Regulation and Recital 34 CIR state that the surcharge shall be applied only to the extent necessary to recover the costs of providing regulated retail roaming services having regard to the applicable maximum wholesale charges. BEREC notes that roaming providers' costs of purchasing wholesale roaming access are limited by the maximum wholesale charges for the corresponding components of wholesale roaming access, and NRAs should take this into account when considering applications for applying a sustainability surcharge. However, in BEREC's opinion, an applicant may duly substantiate that such surcharges may not in principle be strictly limited to the maximum wholesale charges in order to be able to recover the costs of providing regulated retail roaming services. For instance, this could be the case of MVNOs that might have additional costs for services to provide retail roaming services and may according to Article 3 Roaming Regulation be charged at fair and reasonable prices on top of the wholesale roaming charges laid down in Articles 7, 9 and 12 Roaming Regulation. Nevertheless, BEREC considers that authorization of surcharges higher than the applicable wholesale charges by NRAs should be subject to narrow interpretation and that NRAs should strictly assess that the roaming provider has fulfilled its burden of proof in justifying the need for such surcharges in its application.

174. When assessing the level of the sustainability surcharge, NRAs shall ensure that the level of the surcharge does not go beyond what is necessary for cost recovery. In doing so, they shall take into account any FUP implemented by the operator and the potential volumes exceeding the FUP (and resulting in surcharges). However, roaming providers are not permitted to charge the sustainability surcharge in addition to the surcharges according to Article 6e (1) Roaming Regulation. In the exceptional case where the sustainability surcharges are higher than the surcharges according to Article 6e (1) Roaming Regulation (i.e. surcharges for exceeding any FUP) the sustainability surcharges could also be applied when exceeding the FUP (instead of the surcharges according to Article 6e (1) Roaming Regulation). In any case, when authorizing the sustainability surcharges, NRAs shall ensure that the level of the surcharges applied (both within and after the consumption of FUP volumes) do not go beyond cost recovery.

175. From BEREC's point of view, Recital 34 CIR gives guidance about the distribution of sustainability surcharges. As part of its application, the roaming provider itself has to show that its proposed roaming surcharges make its domestic charging model remain sustainable while at the same time do not go beyond what is necessary for cost recovery. Therefore, the operator should propose on which regulated roaming services (calls made or received, SMS sent, data services) or tariffs (all tariffs, specific tariffs, etc.) surcharges should be applied. With view of its approval by the relevant NRA, the roaming provider should take into account the distributional impacts of the proposed roaming surcharges on end users. Surcharges differing significantly between tariffs should therefore be duly justified by the applicant roaming provider. The sustainability surcharges can be applied from the start of using the mobile services while roaming, starting with the first minute, SMS message or MB used.

L. Charges for voicemail messages and SMS received

176. Article 6 e (1) subparagraph 2 Roaming Regulation prohibits charges (including any surcharge) for voicemail messages that are deposited in the roaming customer's network mailbox by another caller and regulated SMS messages received.

177. The home operator is not prevented from levying 'other applicable voicemail charges', for example when the roaming customer listens to a message left in their network mailbox. The transfer of any voicemail messages that have been left in that customer's non-network mailbox to the roaming customer's network mailbox, for example if the customer uses personal numbering, should be considered as a different service to the one described in Article 6e (1), subparagraph 2 Roaming Regulation.

M. Charges in currencies other than the Euro

178. The caps set out in Article 6e (1) (a) Roaming Regulation incorporate the wholesale caps set out in Articles 7 (2), 9 (1) and 12 (1) Roaming Regulation. In calculating the relevant exchange rates for these caps, operators should use the method set out in Article 1 (6) Roaming Regulation as there were no changes due to the 2015 amendment of the Roaming Regulation. Therefore until 30 June 2017, the caps set out in Article 6e (1) (a) Roaming Regulation should be converted using the exchange rate published by the European Central Bank in the OJEU on 1 May 2016. From 1 July 2017 until 30 June 2018, the exchange rate published on 1 May 2017 should be used. If the exchange rate on 1 May 2017 is lower⁸ than on 1 May 2016 and thus beneficial to customers, operators may choose to calculate the caps based on this lower exchange rate already from 15 June 2017, to avoid changing the level of the surcharge already after 16 days of the new regulatory regime.

179. When determining the cap set out in Article 6e (1) (b) Roaming Regulation in currencies other than the Euro, the methodology used for converting retail charges described in Article 1 (7) Roaming Regulation should apply as the limit is related to retail price regulation, i.e. an average of the exchange rates of the same year published

⁸ Lower implies that the price for 1 Euro has decreased, i.e. it is cheaper to buy 1 Euro in local currency on 1 May 2017 than it was on 1 May 2016.

on 1 March, 1 April and 1 May by the European Central Bank in the OJEU should be used.

180. If the average exchange rate for the three relevant months is lower in 2017 than 2016 and thus beneficial to customers, operators may choose to calculate the caps based on this lower average exchange rate already from 15 June 2017, to avoid changing the level of cap already after 16 days of the new regulatory regime.

181. The surcharge cap in Article 6e (1) (c) Roaming Regulation is the weighted average of maximum mobile termination rates across the EU ('average MTR'). The exchange rates set out in Article 1 (6) Roaming Regulation should apply as well.

182. The maximum retail surcharges set out in Article 6e (1) and the wholesale average charges for voice, SMS and data may be calculated to the maximum number of decimal places permitted by the official exchange rate. This sets the maximum that can be charged in the national currency. Providers may wish in practice to quote charges in whole numbers of currency units, especially at the retail level, although this practice is not compulsory. In this instance, the numbers should be rounded down. Rounding up of these numbers to above the level of the relevant cap is not permitted under any circumstances. VAT could be included based on the maximum number of decimals before rounding down the total charge (including VAT).

183. When determining the financial or volume limit on data roaming use (Article 15 (3) Roaming Regulation) in currencies other than the Euro, the methodology used for converting retail charges described in Article 1 (7) should apply as the limit is related to retail price regulation, i.e. an average of the exchange rates published on 1 March, 1 April and 1 May should be used.

N. Inadvertent roaming

184. Inadvertent roaming is when the signal from a mobile device is picked up by a different network without action by the subscriber. MNOs should take steps to reduce consumer harm by breaching FUP limits or indicators due to inadvertent roaming. These steps can include cross border co-ordination on power levels, emission masks and receiver sensitivity. Recognising that radio signals do not respect land borders, and in the event that technical measures alone cannot mitigate the effects of inadvertent roaming particularly in border areas, then MNOs can also consider implementing special tariffs, or Operator Determined Barring Mechanisms, for those subscribers living close to border areas and/or SMS notification, or consent being given perhaps via device menu selection, before allowing roaming for those subscribers affected. In any case, mobile operators should inform their customers about the measures for preventing inadvertent roaming (e.g. the manual selection of the operator when using the device near the border).

O. Value-added services

185. BEREC considers that a value added service is a premium rate service (PRS) in the context of the Roaming Regulation where the charge for the voice call, or SMS, or data transmission is bundled with the price of a specific service being purchased, e.g. a ring tone, and that bundled price is fully billed by, and paid to, the roaming customer's roaming provider.

186. According to Recital 43 Roaming Regulation, the Roaming Regulation does not apply to the whole tariff that is charged for the provision of PRS but only to the tariff component corresponding to the connection to such services. This would allow for applying the charges set out in Articles 6 (a), 6 (b), 6 (c) or Article 6e (1) Roaming Regulation for voice calls, SMS and data services that are solely limited to the connection to PRS and not the service of the content provider itself. If they offer PRS services, operators should ensure that consumers are informed about how any PRS expenditure is tariffed, charged and controlled.

187. For calls to any other value-added services, e.g. where there is advance functionality added to the telephone service, but where there is no split charge between the connection to the service and the specific service, BEREC considers that the charges set out in Articles 6 (a), 6 (b), 6 (c) or Article 6e (1) Roaming Regulation applies. Examples of such value-added services are functionalities like queue management or call-back functionality.

P. Tariffs without roaming services

188. BEREC considers that the Roaming Regulation does not oblige operators to offer roaming services in their tariff plans. However, according to Article 6a Roaming Regulation, roaming providers may not levy any general charge to enable the terminal equipment or service to be used abroad, that is, providers shall not offer roaming options (against a general charge) separately in addition to subscriptions without roaming (see Guideline 9). If the operator decides to offer roaming in a tariff plan, they have the full requirements according to chapters B, C and D.

189. Switching between tariffs with or without roaming services should follow the same procedures as switching between other ordinary tariffs in the Member State. Only the customer should initiate the switching and should also give active consent prior to any switching taking place. Mechanisms for simple and quick switching between tariffs with or without roaming should not be used to circumvent the Regulation.

Q. Roaming calls made to/from ships or planes

190. The Roaming Regulation does not apply to calls made to/from ships or planes using satellite networks. The definition of a visited network in Article 2 (2) (e) Roaming Regulation explicitly refers to a terrestrial public communications network situated in a Member State. BEREC understands that this definition also includes terrestrial public communications networks outside the EEA since the transparency measures set out in the Roaming Regulation also apply when customers use visited networks outside the EEA. The visited network is always the network being used when a customer is

roaming outside his home network. As soon as the mobile device of a roaming customer connects to a network other than a visited network referred to in the Regulation, e.g. a satellite network, roaming services offered by such a network are not covered by the provisions of the Regulation as it is not a terrestrial network and would thus require the use of a different device. This also applies to calls made to/from ships or planes using GSM/UMTS pico-cells as access technology combined with a satellite backhaul in order to provide services to passengers and crew. However, according to the EC Recommendation of 19 March 2010 on the authorisation of systems for mobile communication services on board vessels (MCV services), Member States should take any appropriate measure in order to ensure that consumers and other end-users are adequately informed about the terms and conditions for the use of MCV services. In the case of aircrafts, the Commission Decision of 7 April 2008 on harmonised conditions of spectrum use for the operation of mobile communication services on aircraft (MCA services) considers that the authorisation terms and conditions for MCA services are also outside the scope of this Decision and that the coordination of national authorisation conditions for MCA services is addressed by Commission Recommendation 2008/295/EC pursuant to the Framework Directive. In these cases, BEREC considers it good practice that, according to the relevant transparency measures in the Roaming Regulation, customers are informed by the roaming providers about any additional charges for such connections and provided with the bill-shock provisions when using mobile devices, particularly in cases where customers automatically connect to a mobile network when being on a ship or plane.

R. Machine-to-machine (M2M) communications

191. The Roaming Regulation makes reference to customers that travel periodically. However, it is common for devices for M2M communications to be used on a permanent roaming basis. To that end, it may make sense to assess M2M communications on a case-by-case basis taking account of standard scenarios. Reference is made to the BEREC Report on “Enabling the Internet of Things” (BoR (16) 39) for a more detailed analysis.

192. Pursuant to Article 15 (4) the transparency provisions do not apply to M2M devices that use mobile data communication.

S. ANNEX

Tables from Excel File