Rebalancing for Fixed Services and Price Monitoring

Draft Statement

9 June 2009

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Version 1.1

Request for comments:

The Telecommunications Regulatory Authority ("TRA") invites comments on this consultation document from all interested parties.
Comments should be submitted before **30 June 4pm**.

Responses should be sent to TRA for the attention of the General Director preferably by e-mail (or by fax or post) to:

The General Director
Retail-tariff-consultation@tra.org.bh
Telecommunications Regulatory Authority
P.O. Box 10353, Manama, Kingdom of Bahrain
+973 1753 2125

Purpose: To define TRA position on rebalancing for fixed services, invite Batelco to put forward a proposal to be evaluated by TRA and set out how TRA will monitor the evaluation of retail prices.

Table of contents

Instructions for submitting a response

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Responses should include:

- the name of the company/institution/association etc.,
- the name of the principal contact person, and
- full contact details (physical address, telephone number, fax number and e-mail address),
- in the case of responses from individual consumers, name and contact details.

In the interest of transparency, TRA intends to make all submissions received available to the public, subject to the confidentiality of the information received. TRA will evaluate requests for confidentiality in line with relevant legal provisions and TRA's published guidance on the treatment of confidential and non-confidential information.[1]

Respondents are required to mark clearly any information included in their submission that is considered confidential. Where such confidential information is included, respondents are required to provide both a **confidential** and a **non-confidential** version of their submission. If a part or a whole submission is marked confidential, reasons should be provided. TRA may publish or refrain from publishing any document or submission at its sole discretion.

Once TRA has received and considered responses to this consultative document, TRA will issue a final version of this Statement, together with the report on the consultation.

[1] TRA, A Guidance Paper issued by the Telecommunications Regulatory Authority on its treatment of Confidential and Non-confidential Information, Guidance Paper No. 2 of 2007, 10 September 2007.

List of Acronyms

AREGNET	Arab Regulators Network
BD	Bahraini Dinar
CAGR	Compound Annual Growth Rate
CIO	Central Informatics Organisation
GDP	Gross Domestic Product
OECD	Organisation of Economic Cooperation and Development
PSTN	Public Switched Telecommunications Network
PPP	Purchasing Power Parity
TRA	Telecommunications Regulatory Authority of the Kingdom of Bahrain

1 Introduction

1. The Telecommunications Law, as promulgated by the Legislative Decree No 48 of 2002 (“Telecommunications Law”) opened telecommunications markets to competition and enabled the creation of the Telecommunications Regulatory Authority (“TRA”). Two key duties vested to TRA are the promotion of competition and the protection of the interests of subscribers and users.

2. Historically around the world, telecommunications tariffs for fixed services of operators insulated from competition have seldom closely reflected the underlying cost of providing services. For example, policies designed to encourage the growth of the network and extend the availability of services at reasonable prices have led to loss-making services, such as access and in some cases local calls, being subsidised by revenues from more profitable services, such as international and long distance calls.

3. The advent of competition in markets previously sheltered from competitive forces puts pressure on the historical pricing structures of fixed services of incumbent operators. This has led policy-makers and regulators alike to allow incumbent to gradually align their tariffs more closely with costs. This process whereby individual rates of services are brought in line with underlying costs of provision is referred to as rebalancing. Despite the Bahraini market having been liberalised since 2003 as yet no progress have been achieved in this area. The prices of services exposed to competition has decreased but the monthly recurring rental tariffs charged by Batelco for fixed lines have remained the same in nominal terms for the last 17 years. As a consequence, tariff unbalances have not been reduced and the tariff for fixed line rental does not reflect underlying costs.

4. Large distortions of retail prices, particularly in relation to relevant costs, lead to incorrect price signals for market entry, investment and the development of competition. Ultimately this is damaging for the long term interest of end-users. It is for these reasons that the Government, in the Second National Telecommunications Plan (“Second Plan”) published in February 2008, “requires TRA to ensure that there is a full rebalancing of tariffs for fixed telephony (i.e., by eliminating cross-subsidies between different services provided by the dominant provider)”.[2]

5. Against this background, the purpose of this document is to:

    - describe the recent evaluation, structure and level of fixed line tariffs and how they compare internationally;
    - explain the rationale for allowing rebalancing, and in particular why rebalanced rates will support the development of competition and the interest of end users;
    - analyse access to and affordability of basic voice telecommunications services;
    - set out TRA’s position on rebalancing which supports a phased rebalancing of tariffs,
    - define broad parameters within which Batelco is invited to prepare and submit for the TRA approval a rebalancing plan;
    - outline TRA’s proposed approach to protect low income consumers; and
    - explain how TRA will monitor the evolution of retail tariffs.

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2 The Second National Telecommunications Plan is available at: http://www.tra.org.bh/en/pdf/TheSecondNationalTelecommunicationPlanEnglishFinal.pdf.

2 Context

The Second National Telecommunications Plan

6. The approval by the Council of Ministers of the Second National Telecommunications Plan (the "Second Plan") on 13 February 2008 represents a major milestone for the Kingdom of Bahrain and the telecommunications sector in particular. The Second Plan sets out the Government's overarching vision for the telecommunications sector for the next three years.

7. The central objective of the plan is to further assist the telecommunications sector to become a major force in the development of the national economy. This requires continuous improvements to the services offered to residential and business users alike in terms of availability, range and price.

8. The Government, through the Second Plan, requires TRA and other authorities, within the remit of their mandates to notably:[3]

   - "Develop competition in telecommunications, including both infrastructure and access services, and enable it by ensuring that barriers to entry for all forms of competitors are minimised and by taking steps to maximise economic efficiency in using scarce resources, in particular the electromagnetic spectrum and access to land;
   - Promote active investment by the private sector in telecommunications infrastructure;
   - Develop the legislative, policy and regulatory environment to take account of convergence in technology and services."

9. To continue the development of competition, the Second Plan also directs TRA to ensure that the prices charged for fixed line services are brought in line with underlying costs. More specifically, the Second Plan says:[4]

   > "The Government recognises that in order for competition to thrive and to deliver real long term benefits for citizens, policy and regulation should not deter investment or development of competition by mandating price structures that do not reflect costs of provision of respective services. Where traditionally integrated services (e.g., telephone line rental and call services delivered over that line) separate, these services should be adequately priced in accordance with the costs of these different services. The Government therefore supports implementation of regulatory measures and policies that maximise long-term consumer benefit, even where there may be some unavoidable short term costs**. Therefore, the Government requires TRA to ensure that there is a full rebalancing of tariffs of fixed telephony (i.e., by eliminating cross-subsidies between different services provided by the dominant provider)".**[Emphasis added]

10. Further, in recognition for the potential adverse impact on low income users of rate rebalancing, the Government indicated in the Second Plan that:[5]

   > "[w]here charges are increased to cover costs it may be that certain sectors of the community cannot afford to pay for basic telecommunications services and

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3 Second National Telecommunications Plan, 13 February 2008, page 3.

4 Second National Telecommunications Plan, 13 February 2008, page 5.

5 Second National Telecommunications Plan, 13 February 2008, page 6.

do not benefit from the general decrease in prices for telecommunications services. **The Government considers the availability of telecommunications services to the low income users should be tackled under the general social assistance without hindering the development of competition in the telecommunications sector**. [Emphasis added]"

11. In developing its position on rebalancing, TRA, as an implementing agency, has taken utmost importance of the objectives and requirements of the Second Plan in order to ensure that the policy objectives expressed by the Government are achieved according to the principles set out in the Second Plan.

The Strategic and Retail Market Review

12. In line with the Second Plan, the Strategic and Retail Market Review completed in June 2008 also discussed the issue of price rebalancing. In order to cushion the potential adverse impact on consumers of rebalancing, TRA indicated that a multi-year rebalancing plan will be developed; that baskets of services for different households types will be developed and that the introduction of per second pricing for fixed tariffs will be considered.[6]

13. More specifically in the Statement on the Strategic and Retail Market Review TRA indicated that:[7]

> "A multi-year price control/rebalancing plan will also be developed to allow prices to move closer to the underlying cost of providing services such that entry decisions are no longer distorted. TRA will work with Batelco and other stakeholders to introduce a low user scheme to limit the effect of re-balancing on vulnerable consumers.
>
> TRA will monitor the price of representative baskets of services to track the extent to which consumers are benefiting from regulation and competition."

14. It is in the context of the implementation of the Second Plan and the Strategic and Retail Market Review that this Statement needs to be understood.

3 Legal framework

15. The Telecommunications Law entrusts TRA with the protection of the interest of subscribers and users in respect notably to the tariffs charged for services (Article 3(b)1) and the promotion of effective and fair competition among new and existing Licensed Operators (Article 3(b)2). The Telecommunications Law also gives TRA the power to issue regulations, orders and determinations as may be necessary in several areas, including services tariffs (Article 3(c)1).

16. More specifically, Article 3(c)14 gives TRA the responsibility to ensure that tariffs are fair and reasonable and to establish the basis for rebalancing plans. This Article reads as follows:

> "The Authority shall have the power to review tariffs to ensure that they are fair and reasonable and establish the basis for tariff definition and tariff rebalancing plans and other measures for tariff controls [...]"

6 See TRA, Statement on the Strategic and Retail Market Review, 3 June 2008, and TRA, Strategic and Retail Market Review: A Report, 28 February 2008.

7 TRA, Statement on the Strategic and Retail Market Review, 3 June 2008, page 5.

17. In addition Article 58 of the Telecommunications Law deals explicitly with tariffs control. Notably it provided for the imposition of tariff controls, to be specified by TRA, for Licensed Operators with significant market power. More generally Article 58 stipulates that tariffs charges shall be fair and equitable, non-discriminatory and based on forward-looking costs.

18. With specific regard to tariff rebalancing, Article 58 gives TRA the authority to "review and control tariffs, establish the basis for tariff definition and tariff rebalancing plans and take any other steps in this respect in accordance with the provisions of Article 3(c)(14) of this Law".

4 The issue

19. Based on the information available to TRA and submissions made by Batelco, tariffs are imbalanced in the sense that the current rates for the fixed line monthly rental appear to be insufficient to recover the direct cost associated. This situation is increasingly unsustainable in a competitive environment. It is one of the factors that may hamper the development of the sector and the furthering of the long term interest of end-users. It is also out of step with more advanced countries.

20. Historically around the world, fixed telecommunications tariffs of incumbent operators have seldom been closely tied to the underlying cost of providing services. For example, policies designed to encourage the growth of the network and extend the availability of services at reasonable prices have led to loss-making services, such as access and in some cases local calls, being subsidised by revenues from more profitable services, such as international and long distance calls.

21. Where incumbent operators retain monopoly rights, there is less pressure for individual tariffs to reflect underlying cost. Loss-making services are cross-subsidised by profits made on other services that are protected from competition. However, the introduction of competition in the sector through liberalisation creates additional pressure on tariffs to reflect cost as competition progressively erodes the source of cross-subsidies. It is also important that incumbent operators earn a reasonable return overall in order to generate and attract sufficient capital to both maintain and build infrastructure and that correct price signals are given to new market entrants.

22. The advent of competition in markets previously sheltered from competitive forces puts pressure on the historical pricing structures of fixed services of incumbent operators. This has led policy-makers and regulators alike to allow incumbents to gradually align their tariffs more closely with costs. Despite the Bahrain market having been liberalised since 2003 as yet no progress have been achieved in this area.

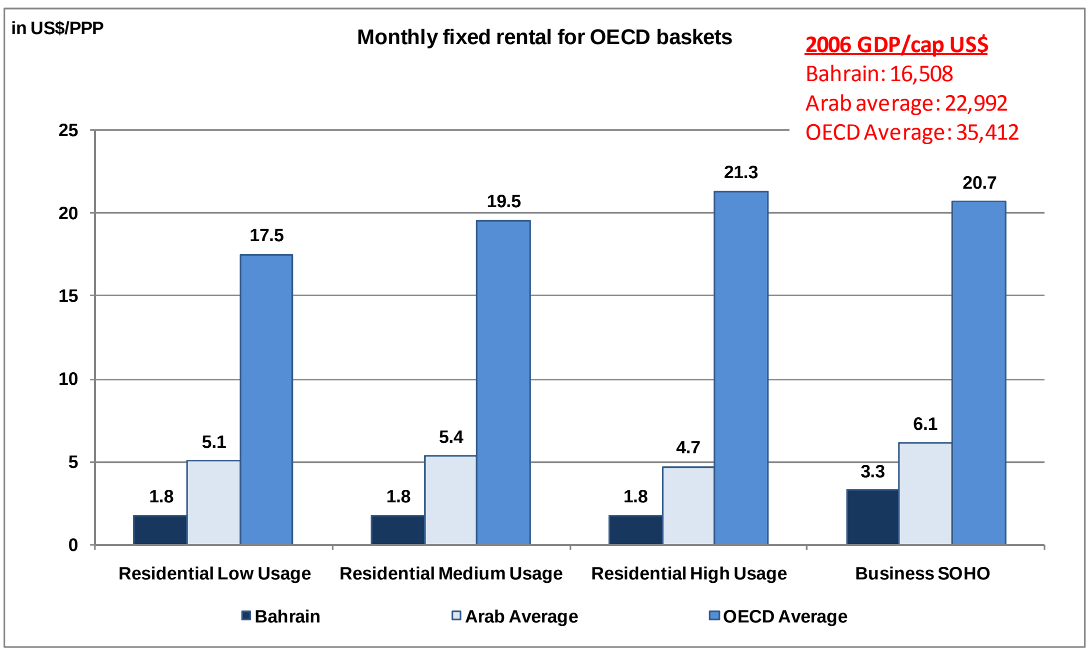
5 Retail Fixed Tariffs: Recent Evolution, Structure, Level and Benchmarking

23. Batelco's residential and business PSTN line rentals as well as tariffs for national calls have not changed in 17 years. In February 1992, residential and business monthly PSTN line rental tariffs were reduced from BD 1.49 to BD 1.16 and from BD 2.49 to BD 2.16 respectively. Fixed-to-fixed domestic calls were reduced from 30 fils per 180 seconds to 21 fils. Fixed-to-mobile calls are charged 21 fils per 90

seconds. There are no other packages offered for residential and business users. Elapsed time charging for calls (i.e. billing of calls based on actual duration of calls) is not offered, calls are billed per unit.

24. By international standards, rental rates in Bahrain appear low, even after adjusting for income differences. As illustrated in the Figure 1 below, they are out of step with Arab and Organisation of Economic Cooperation and Development ("OECD") benchmarks: rentals in Bahrain are approximately one third and one tenth of the Arab and OECD averages respectively. The average monthly rental applicable to the medium usage OECD basket amounted to US$/PPP 19.5 and US$/PPP 5.4 for Arab countries compared with US$/PPP ("Purchasing Power Parity") 1.8 in Bahrain.[8] Although it may appears at first sight a positive result, for the reasons set out below, significantly unbalanced rental rates tend to hamper the promotion of competition and may not be in the long term interest of end-users

Figure 1: International benchmark for monthly fixed renal[9]



25. The difference between the Arab and OECD averages is most likely due to the fact that most OECD countries have experienced a sustained period of tariff rebalancing during which rental tariffs have been adjusted to more closely reflect underlying

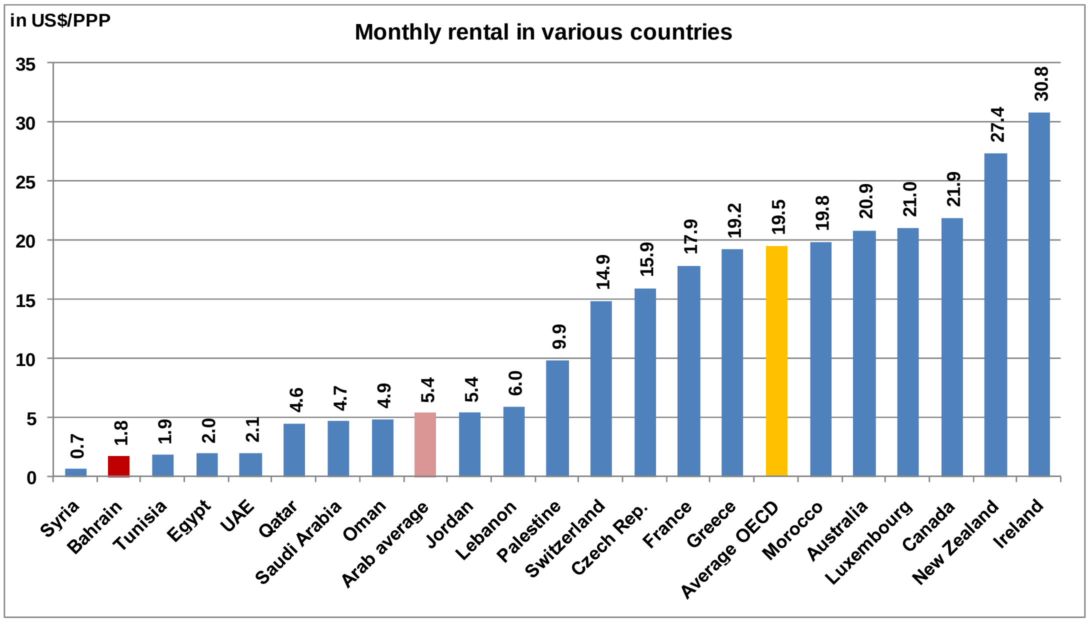
8 PPP stands for purchasing power parities. PPPs are used as a currency conversion method which better reflects the differences in income levels and domestic prices than exchange rates. The OECD defines PPPs as: "the rates of currency conversion that equalise the purchasing power of different currencies by eliminating the differences in price levels between countries. In their simplest form, PPPs are simply price relatives which show the ratio of the prices in national currencies of the same good or service in different countries", OECD, Glossary of Statistical Terms, http://stats.oecd.org/glossary/detail.asp?ID=2205, accessed 26 May 2009 .

9 Source: TRA analysis based on Teligen OECD and Arab Baskets. Tariff data applicable as of January 2008 for OECD baskets. Arab and OECD averages include 16 and 30 countries respectively (Yemen has been omitted from Arab benchmarks.). GDP/cap figures are based on ITU and CIO data for 2006.

costs. In those countries call charges as a proportion of overall spend tends to be much lower.

26. There is wide dispersion of rental tariffs especially amongst Arab countries (see Figure 2 below for rates in a number of countries). It ranges from US$/PPP 0.7 in Syria to US$/PPP 30.8 in Ireland. In Jordan the rate applicable is US$/PPP 5.4 while it is US$/PPP 4.7 in the Kingdom of Saudi Arabia.

Figure 2: International benchmark for monthly fixed renal for various countries[10]



27. By international standards the charging basis (i.e. unit based) used by Batelco for fixed originated calls is also out-dated. In particular, the size of the unit, that is 3 minutes for fixed-to-fixed domestic calls and 1.5 minute for fixed to mobile calls, seem particularly large. Amongst OECD countries, there are only nine countries where unit charging is still in use (of which five use per minute charging); in all other countries calls are charged per second.[11] Similarly amongst the 22 Arab countries member of AREGNET, there are only approximately 10 countries that still have a unit based billing system (of which five use per minute charging); all the others have per second charging. [12]

[10] Source: TRA analysis based on Teligen OECD and Arab Baskets. Tariff data applicable as of January 2008 for OECD baskets. Arab and OECD averages include 16 and 30 countries respectively (Yemen has been omitted from Arab benchmarks.)

[11] TRA analysis based on Teligen, T-Baskets PSTN Baskets based on OECD methodology, January 2008.

[12] TRA analysis based on Teligen, Arab Basket PSTN Baskets for Arab countries based on OECD methodology, May 2008.

6 The rationale for and the objectives of allowing prices to move closer with costs

28. Whereas in anticipation or at the outset of market liberalisation, countries have typically sought to reduce tariff imbalances over time, the maintenance of constant nominal prices for fixed tariffs observed in Bahrain since 1993 mean that historical tariff imbalances are likely to have increased rather than decreased over time. The data available to TRA and submissions made by Batelco suggests that the level of the monthly line rental rates alone is insufficient to recover the costs of providing this service.

29. The term rebalancing refers to the process of adjusting the prices of different services to be more in line with the cost of providing each service. In general tariffs that are unbalanced, i.e. that are above or below their cost of provision, create market distortions and lead to an inefficient allocation of resources. In fact, economic efficiency requires prices to reflect costs and hence a gradual rebalancing of prices is desirable.[13]

30. Unbalanced tariffs (typically below the cost of service provision) can, for example, discourage market entry by firms wishing to build their own access network and consequently lead to reduced investment in infrastructure by competing operators and/or lower levels of competition which tends to be to the detriment of consumers and the economy as a whole. Such deterrent to the development of competition in the market may result in a higher price for the overall basket of services consumed by end-users, thereby leading to a higher overall cost of telecommunications services for consumers than a competitive market would deliver.

31. Unbalanced tariffs may also give rise to competitive distortions and place the incumbent operator in danger from competitors which choose to compete only in areas where profits can be made. This situation is generally referred to as “cream skimming” or “cherry picking” and may overall be detrimental to the development of the sector and lead to sub-optimal outcomes as it:

- may undermine the ability of the incumbent to fund unprofitable services;
- can dampen investment incentives and reduce (efficient) investment by the incumbent;
- can discourage entry in activities where returns achievable are below the cost of capital while at the same time inviting potentially inefficient entry by operators which are/may be less efficient than the incumbent in the activities that make up for the profit shortfall of activities in deficit.

32. Overall unbalanced rates can result in efficiency losses which are damaging to competition and the long term interests of end users. Prices not in line with costs may produce allocative efficiency losses which take the form of over-consumption of below cost services and under-consumption of above cost services. Further, distorted price signals associated with unbalanced rates can lead to distortions of competition with adverse effects on productive efficiency as cost may not be minimised. In turn, dynamic efficiency may also be negatively impacted.

33. Unbalanced price structures in a competitive environment may render certain activities unsustainable in the medium to long term. Consequently policy makers

[13] This will depend on the existence/magnitude of network externalities. Other things being equal, some imbalance may be efficient where large network externalities are found.

and regulatory authorities throughout the world have encouraged operators to gradually adjust their tariffs to be cost oriented.

34. Tariff unbalances can lead to a notional deficit in the sense that revenues from access and connection, as well as in some countries local calls are insufficient to recover the cost associated with those services. However, when assessing the true extent of any alleged access deficit, in addition to revenues from connection and rental services, revenues for other fixed services are considered legitimate sources of revenues to the extent that a common asset (i.e. the local loop) enables the provision of these services.

35. Rebalanced tariffs can be expected to lead to economic efficiency gains and to be in the long term interest of end-users by:

- Providing the right economic signal for investment by entrants and the incumbent;
- Facilitating the development of effective competition;
- Allowing the recovery of efficient cost of providing services;
- Leading to efficient levels of consumption of different services and hence to efficient use of telecommunications networks;
- Promoting efficient entry by sending the right economic signal to potential entrants regarding the operating and investment cost of offering different services;
- Supporting the development of broadband services in line with the economic 2030 vision for Bahrain; and
- Overall promoting the long term interest of consumers.

36. It is for these reasons that rebalancing is a superior policy to address the issue of unbalanced rates compared to the introduction of an access deficit contributions (ADCs) mechanism, the purpose of which is to finance the access deficit that may be incurred by the fixed line incumbent from contributions (typically a surcharge on interconnection rates) from operators, including the incumbent itself.[14] TRA also notes that rebalancing is also explicitly required by the Government in the Second Plan.

37. It is worth noting that operators may chose not to rebalance fully while seeking to ensure an overall reasonable return over the services that can be provided over access lines. This may be acceptable provided that it does not lead to distortions of competition.

38. The main economic reason for maintaining some imbalance is that pricing access below cost may encourage more people to join/stay on the network: the extra customers may be called by others who are prepared to pay more for making calls to these customers as it is a more convenient way to contact them. While this theoretical argument is valid, in practice such network externalities do not justify

[14] There are limited instances where ADC mechanisms have been introduced, generally on a temporary basis. ADC schemes implemented by regulators have typically focused on ensuring that only efficient cost are taken into account. In assessing the magnitude of any access deficit and merit of ADC, regulators have taken into account not only the revenues from rental and connection but also revenues from other services provided over the access network to form a view on the overall profitability of the fixed business. Where introduced, a key concern of regulators has also been to ensure that ADCs are competitively neutral, i.e. the incumbent and new entrants pay the same amount per unit of specified services as otherwise it creates further distortions.

maintaining a large imbalance as people who join/stay on the network only because access prices are kept below cost are unlikely to receive and make many calls.

39. Also, in a market like Bahrain where mobile penetration per head of population reached 131% in December 2008 compared to 20% for fixed line (fixed line penetration is 78% when measured per household), and where mobile operators offer attractive entry level packages associated with low cost of ownership (see Section 7 below), the most economical way of providing telecommunications services to people who make and receive few calls may not necessarily be through fixed access.[15] If low volume users substitute fixed with mobile access, the incumbent may be left with uncovered costs. However since these costs will be sunk there is no economic rationale to allow for their recovery. At the same time, network effects are maintained as no one drops off the networks, i.e. everyone is still contactable.

40. This brings a more general point. Where users have a choice of competing access technologies for telecommunications services, the incumbent may not be able to rebalance fully as balanced rates may be greater than those which the market can bear. In other words, the possibility of consumers switching to other access technologies may constrain rebalancing. Here too, it is possible that a proportion of cost becomes sunk and hence unrecoverable. If this case arises, then since only efficient and relevant cost can be recovered in markets subject to competitive forces some of the potential access deficit or revenue shortfall from access services will no longer have merit..

Question 1: Do you have any comments regarding the rationale for and objectives of allowing fixed line tariffs to move closer to costs? Please elaborate.

7 Access to and affordability of basic voice telecommunications services

41. As explained earlier, in line with public policy objectives to encourage and facilitate access to basic telecommunications services to all, historically the charges for connection and rental have throughout the world been kept at low levels.

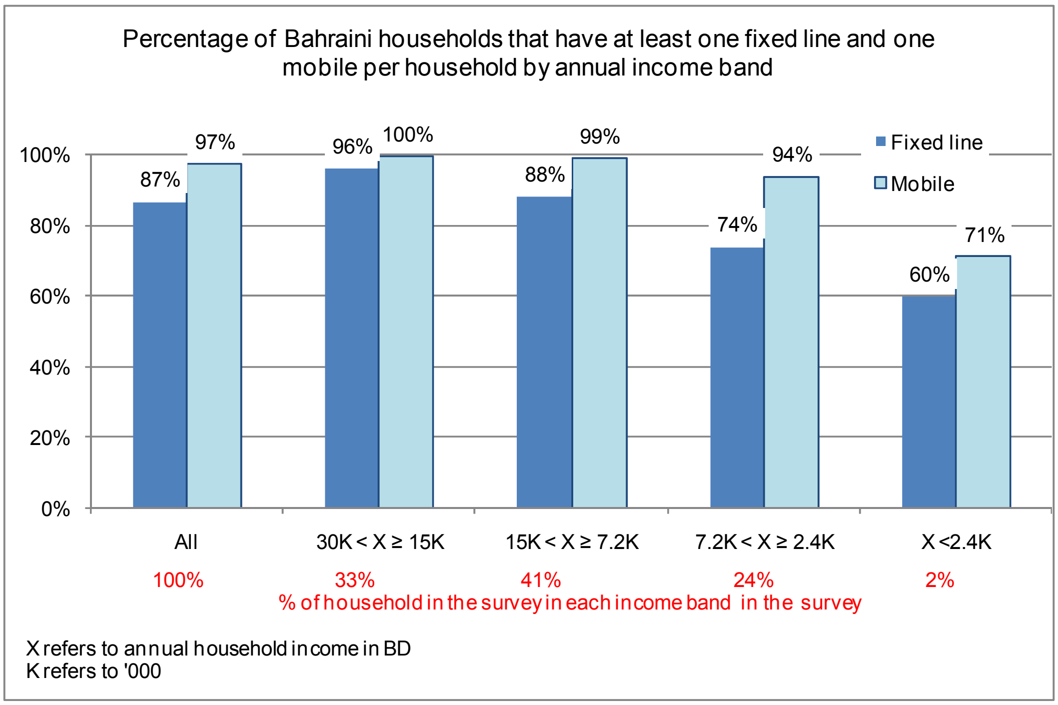
42. One of the potential concerns of price rebalancing is that the relative increase in certain charges may cause access to basic telecommunications services to low income users to be less affordable and could ultimately lead to existing users dropping off the network. Business users are less exposed to this risk as access to basic telecommunications services, whilst essential for running a business, represents a small operational expenditure which businesses can afford. Business users also typically consume a broad set of services and are therefore more likely to benefit from the overall reduction of prices.

43. As has been identified, the possibility to substitute mobile services for fixed telephony access is widely used, viable, attractive and affordable. Therefore in light of such market developments, rebalancing is unlikely to raise significant risk with regards to access and affordability for the vast majority of residential consumers, even for low income groups.

[15] TRA, Telecommunications Markets Indicators, 2009.

44. Consumers in Bahrain can chose to have a fixed line and/or a mobile for basic voice services. Market data shows that consumers are making effective use of the choices available to them. The penetration rate for fixed lines is less than one sixth of that for mobile (see figure below). The latest Household Expenditure and Income Survey published by the CIO also demonstrates the wide use of mobiles as a means of providing access to basic voice services: less than 3% of Bahraini households do not have a mobile compared to 13.2% for fixed line access (see figure below).[16] Based on this survey only a limited fringe of the low income population has no access to basic telecommunications services (less than 30% of low income Bahraini households). The survey also reveals that most households have a fixed line and several mobiles.

Figure 3: Survey estimates of Bahraini households access to basic voice services by annual income level[17]

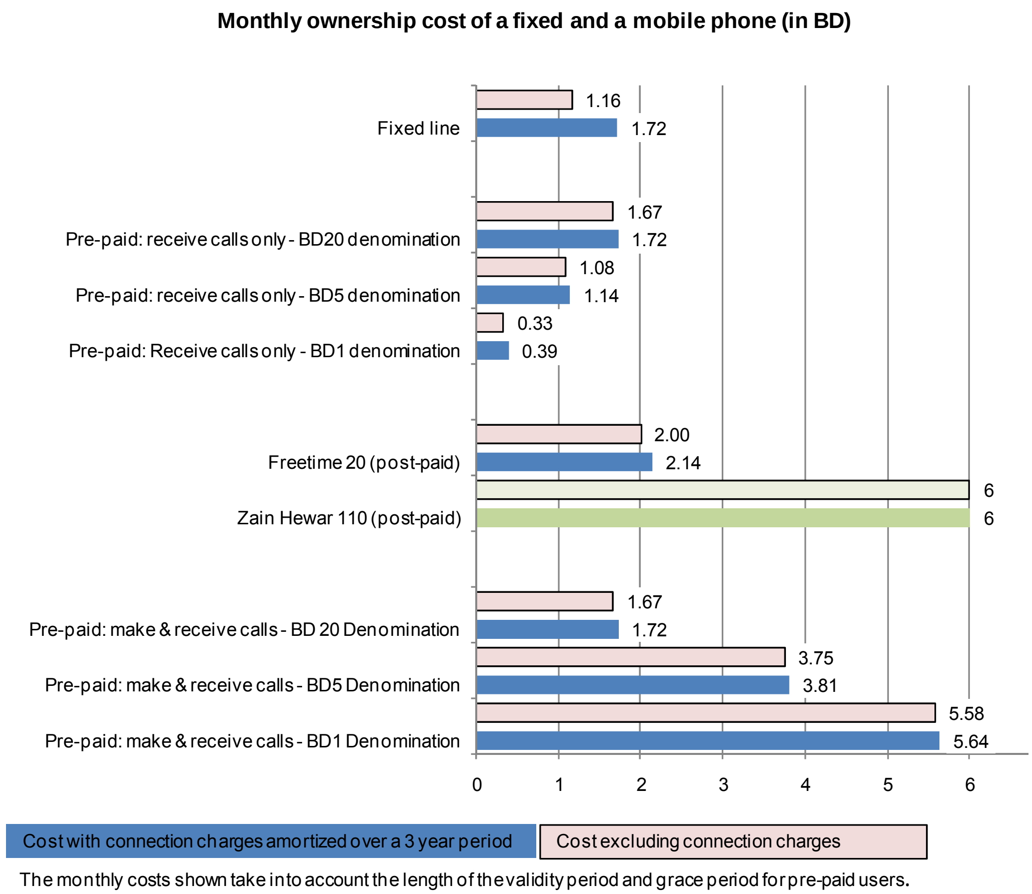


45. The extensive use of mobile has been greatly facilitated by the low cost of ownership of mobile. The pre-paid and post-paid packages offered by Batelco and Zain have ensured that the cost of ownership of a mobile is very attractive (see Figure 4 below). Based on currently available offers, TRA has calculated that the monthly cost of being contactable can be as low as about 400 fils per month using BD1 denomination pre-paid customer cards. For a customer that wants to be always able to make and receive calls, the monthly cost is BD1.16 or BD1.72 including the BD20 connection charge amortized over 3 year period. This is exactly the cost of having a fixed line except that there are no inclusive credits with a fixed line.

16 See CIO, Household expenditure and income survey 2005-2006.

17 Source: TRA analysis based on CIO, Household expenditure and income survey 2005-2006.

Figure 4: Monthly “ownership” cost of a fixed and mobile in Bahrain[18]



46. There is a worldwide trend towards fixed-to-mobile substitution. However with the advent of broadband access and more affordable mobile consumption patterns are changing. Mobile is more and more being used as the primary means to access basic voice services whilst for fixed lines broadband access is increasingly being seen as the primary use.

47. The process of rebalancing fixed rates is unlikely to raise a major problem with regards to affordability of access to basic voice telecommunications services. In broad terms, affordability means the ability to pay for necessary levels of consumption without suffering hardship. One of the commonly accepted ways to look at affordability is to compare the cost of a service and/or given usage relative to some measures of income/expenditure.

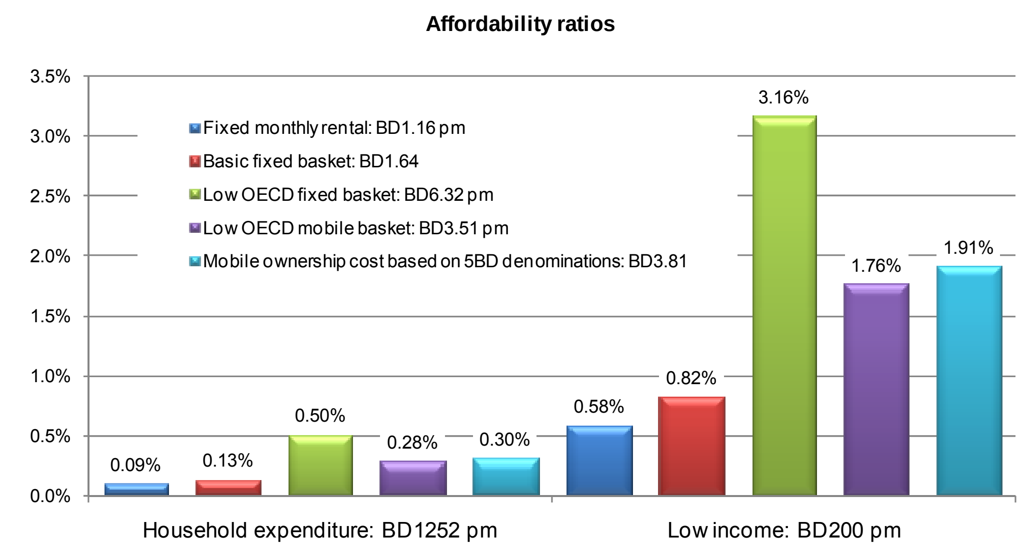
48. As can be seen from Figure 5, the ratio of the monthly cost of various fixed baskets to household expenditure is less than 0.5%. Even after rebalancing, the ratio is very unlikely to reach a level which would render access services unaffordable.

49. In the case of low incomes, a basic basket of fixed services (i.e. monthly rental and 30 calls of 3.5 minutes per month) represents 0.8% of a BD200 per month income. Thus rebalancing may not necessarily raise major affordability concerns in terms of

[18] Source: TRA analysis based on CIO, Household expenditure and income survey 2005-2006.

access to basic voice services, notably because of the availability of affordable mobile-based alternatives.

Figure 5: Affordability analysis based on measures of income[19]



How to read this graph: the monthly cost of the basic fixed basket (BD1.64) represents 2.32% of a low income of BD200 pm.
Note1: The basic fixed basket includes the monthly rental and 30 calls of 3.5 minutes per month (70% to mobile and 30% to fixed phones). See Annexe for the composition of other baskets.
Note 2: A low income of BD200 pm was selected as it correponds to the low income band adopted by CIO in its Household expenditure and income survey.

50. Overall, on the basis that it is only the low income category of users which may be vulnerable to increases in the cost of services arising from a rebalancing plan, TRA considers that a competitively neutral scheme targeted to low income households/individual may be required to accompany any tariff rebalancing scheme (see below).

Question 2: Do you have any comments regarding access to and affordability of basic voice telecommunications services? Please elaborate.

[19] Source: TRA analysis based on CIO, Household expenditure and income survey 2005-2006 data.

8 Setting broad parameters for Batelco to prepare a rebalancing plan

51. TRA is committed to allow Batelco to rebalance its fixed line tariffs in line with the requirement of the Second Plan and the outcomes of the Strategic and Retail Market Review while mitigating the impact on end-users. However, it is important that appropriate guidance and safeguards are put in place to cushion the effect of rebalancing on users and to minimise the potential disruptive effect of this process.

52. TRA invites Batelco to prepare a rebalancing plan to be put to TRA for approval. Since Batelco has a more intimate knowledge of its customers and their preferences, TRA considers that Batelco as a commercial operator is better placed to develop such a plan within the broad parameters and guidance set by TRA below. While ensuring that rebalancing takes place to an acceptable extent is the responsibility of TRA, the actual design of packages and plans for consumers is a matter of commercial and marketing strategy. It would therefore be inappropriate for TRA to substitute itself to Batelco and define such packages.

53. In accordance with Article 3(c)14 of the Telecommunications Law the role of TRA in developing the rebalancing plan is more to set the overall framework for rebalancing, and to assess and approve, after modification, if and where appropriate, a rebalancing plan proposed by Batelco.

54. A rebalancing plan acceptable to TRA would adequately address the following considerations.

A progressive and phased rebalancing

55. Given the likely extent of rebalancing required, and in order to limit the potential adverse impact on consumers and to manage the acceptance of rate adjustments, rebalancing needs to be phased over a number of years. Given the degree to which rates are unbalanced at present TRA considers three to four years to be a suitable timeframe over which Batelco has the opportunity to rebalance.

Clear implementation steps

56. Clear steps provide visibility to consumers and the sector. It is therefore important that the plan includes clear milestones, e.g. to increase monthly rental tariff by BD X_1 during the first year and adjust unit duration to Y_1 seconds; by BD X_2 during the second adjusting the unit duration to Y_2 seconds in the second year; and so on for the period of the rebalancing plan

No carry over provision

57. TRA considers that carry-over provisions, i.e. a provision that allows unused head room (i.e. allowance to adjust prices) for a particular year to be used the next year, should not be accepted as it would undermine the progressiveness of rebalancing.

58. Also, rate rebalancing is a long outstanding regulatory issue which must be addressed and it is essential that there is a clear start and end point to the process. If Batelco chooses deliberately not to use the opportunity to rebalance, then TRA will not consider any representation made by Batelco with respect to compensation for an alleged access deficit. Rebalancing can be used as a strategic lever, since the business case for entry at the access level can be undermined by holding the line rental rates low. This can dampen competitive pressures to the detriment of

end-users. Therefore to ensure competitive neutrality the rates kept low will flow through at the wholesale level for the charges of services that use the same input applicable to entrants. This would also apply in the case Batelco chooses not to propose any rebalancing plan.

Introduction of packages

59. In countries in which competition is more developed, operators tend to offer packages of services combining monthly rental with communications. Packages come in many different flavours, some offer cheaper communications for a higher rental charges, other included free minutes in the rental charges. At present in Bahrain there is only one standard package for residential customers and one standard package for business customers.

60. The introduction of rebalancing represents an excellent opportunity to bring to the market more diverse packages which give more choices to consumers. TRA therefore encourages Batelco to develop as part of its rebalancing plan various packages. Packages could be differentiated by customer types, by usage (e.g. low, medium, high), etc. It is entirely within the purview of Batelco to define the structure and content of its packages provided that they are in line with the Retail Tariff Notification Regulation and Guidelines.

A move to elapse time charging

61. At present fixed originated calls are priced per unit and not based on the actual duration of calls. Given the particularly large size of units (3 minutes for fixed to fixed domestic calls and 1.5 minute for fixed-to-mobile domestic calls), this means that consumers may “pay” actually more than the cost incurred for a call, especially for short calls. As previously indicated in the Strategic and Retail Market Review TRA is of the view that the rebalancing plan provides an appropriate vehicle to introduce elapsed time charging, perhaps in progressive steps. For most consumers the reform of the charging principle should help cushion the impact of rebalancing.

62. In assessing the rebalancing plan to be prepared by Batelco, TRA will analyse the extent to which it satisfies the broad parameters set out above. TRA will also thoroughly analyse the proposal from a costing perspective to ensure that the proposal is reasonable and reflects relevant and efficient costs. Further the impact on consumers will be carefully considered along with the impact on Batelco’s revenues. Thus, TRA expects to receive a detailed and adequately justified proposal from Batelco with supporting information.

63. TRA has already began discussion on this matter with Batelco and intends to work closely with Batelco to resolve this issue for the long term benefits of end users, the promotion of competition and Batelco.

64. In terms of timing, TRA expects Batelco to submit to TRA for approval a rebalancing plan within two month of publication of this Statement. Given the preparatory work already performed by Batelco, preliminary discussions between TRA and Batelco, and based on the work involved in the preparation of a rebalancing plan, TRA considers that this timeline provides Batelco with ample time to develop its rebalancing plan. If Batelco fails to prepare a rebalancing plan, TRA may have to resort to alternative course of actions with the remit of its powers and duties.

Question 3: Do you have any comments regarding the proposed broad parameters for Batelco to prepare a rebalancing plan? Please elaborate.

9 Protecting low income consumers

65. A progressive policy of allowing prices to move closer to cost can also be accompanied by specific measures to help vulnerable customers. As outlined above, rebalancing is unlikely to raise significant issues in terms of affordability of access to basic telecommunications services given market developments and consumer usages for most users in the vast majority of instances. However, TRA considers that in line with the requirements of the Second Plan, it is important to address the needs of low income users, where required. Low income users could in fact be negatively affected by tariff rebalancing if nothing is done to protect them.

66. There are several ways this could be achieved. One way would be for Batelco to include a low income package as part of its rebalancing plan. Such scheme would target low income households/individuals. An assessment of the net cost to Batelco of providing such a scheme along with an analysis of the modalities to recover its cost, if applicable, would be required.

67. However, the Government expressed in the Second Plan a clear preference for some form of direct demand-side subsidy: "[t]he Government considers the availability of telecommunications services to the low income users should be tackled under the general social assistance without hindering the development of competition in the telecommunications sector".

68. Addressing a potential affordability gap in this manner ensures that any subsidies do not distort competition in the market and that they actually reach the ones who need support. It is competitively neutral since the subsidy would not need to be conditional on staying with a specific operator or means of access (i.e. mobile or fixed). Beneficiaries could use the subsidy to subsidise their telecommunications bills.

69. TRA intends to work with the relevant Government bodies to address the needs of low income users and to design an appropriate mechanism for implementing some form of subsidy. One such mechanism could be a subsidy targeted for household/individuals included on the general social assistance list of low income and special needs of the Government, as these household/individuals have been determined by the Government as requiring special assistance because of their income.

70. The precise amount of the subsidy, if required, would have to be determined having regards to the rebalancing plan approved and the magnitude of the affordability gap. The funding may come from the annual surplus generated by TRA. In doing so, the potentially adverse effect of rebalancing on low income users can be greatly mitigated.

Question 4: Do you have any comments regarding the proposed approach to deal with the needs of low income users? Please elaborate.

10 Monitoring the evolution of baskets of services for typical households

71. In order to assess and track over time the impact of price changes and tariff structure changes on consumers, it is essential to monitor the evolution of prices for services as part of the rebalancing process. Given usage and consumption patterns of telecommunications services the scope of services to be monitored will extend beyond fixed line services.

72. Nowadays, telecommunications services play an essential role in the everyday life of citizens and businesses. The consumption patterns of users have dramatically changed over the last 20 years thanks to technical change and the new services introduced by operators. Whereas some 20 years ago, services consumed by users were limited to fixed basic voice services, most consumers now have a mobile phone and internet connections are also increasing very rapidly.

73. What is important for consumers is not so much the relative prices of the different services they consumed but the overall amount or budget spent on telecommunications services. Thus TRA wants to place more emphasis on baskets of services consumed by typical households instead of focussing solely on individual elements which can lead to misleading comparisons over time.

74. To this end, TRA has decided to adopt a basket approach to track price changes. A basket approach to tariff analysis relies on consumer profiles and associated consumption patterns (e.g. number and duration and type of calls made in any given month). Once the elements of a basket are defined, the cost of individual elements and the overall cost to the consumer of the basket of services can be calculated. One of the key advantages of a basket approach is that it captures all the subtleties of the tariff structures observed and hence gives as accurate as possible a representation of the real costs consumers pay. For example, in the baskets defined below the effective prices for calls of various durations made at different times of the day are taken into account.

75. To track the impact of the evolution of tariffs and of competition over time on consumers, TRA has developed a tariff monitoring framework. The key elements of the framework are:

- ***Definition of typical households:*** Having regards to available data TRA has constructed a number of typical households.
- ***Definition of overall basket of services*** of each typical household. An overall basket of services is then assigned to each households constructed.
- **Calculation of the monthly cost of each basket**. Once the exact composition of each basket in terms of number of calls, their duration, etc, is completed, the total monthly cost for each basket is calculated.
- **Annual monitoring**. With the baseline defined above, TRA can then monitor and report back to its stakeholders on the evolution of the cost of each basket on an annual basis.

76. More specifically, to define typical households, TRA looked at the uptake of fixed, mobile and internet services, households requirements in terms of telecommunications services, income distribution, household size and distribution as well as trends observed. On this basis TRA has defined 11 typical households

and the number and types of services subscribed by each (see table below). One such typical household is the "Medium size family with medium usage" which has a fixed line, three mobiles and a broadband connection.

Table 1: The typical households constructed by TRA

Basket	Number of services Household type	Fixed voice	Mobile	Broadband
Basket 1	Basic usage	1		
Basket 2	Single low usage		1	
Basket 3	Single medium usage	1	1	1
Basket 4	Single high usage	1	1	1
Basket 5	Couple	1	2	1
Basket 6	Medium size family with low usage	1	3	1
Basket 7	Medium size family with medium usage	1	3	1
Basket 8	Medium size family with high usage	1	3	1
Basket 9	Large size family with low usage	1	6	1
Basket 10	Large size family with medium usage	1	6	1
Basket 11	Large size family with high usage	2	6	2

77. Having defined the number and type of services, i.e. the overall basket of services, for each typical household, TRA then assigned for each household service specific baskets. To do so, TRA relied on the pre-defined OECD baskets developed by Teligen, which have been applied to Arab countries.[20] TRA also developed a "Basic usage basket" which includes the monthly rental and 30 calls of 3.5 minutes per month (21 to mobile and 9 to fixed phones).

78. Reliance on predefined baskets reflects a pragmatic choice by TRA. Further, being standardised, the OECD baskets also enables international comparisons with more economically developed countries and with Arab countries to be performed.

79. To come up with the overall basket for each household, TRA mixed and matched services specific baskets and typical household type from a menu of services specific baskets:

(a) **fixed voice**: basic, low, medium, high usage;
(b) **mobile**: low, medium, high usage, and
(c) **broadband**: low speed and high speed.

80. The main elements of each service specific basket are described the table below.

81. The outcome of mixing and matching typical households with service specific baskets based on the characteristics of consumers is detailed in the table below where the cost of each service specific basket and overall basket is presented. Taking the example of the "Single High Usage", his/her overall consumption is made of a high usage mobile basket and a high speed broadband basket and a low usage fixed voice. Based on this overall pattern, his/her monthly expenditure is BD78.99 per month.

20 See Teligen, Telecom Price Benchmarking for Arab Countries, June 2008.

Table 2: Baskets for each household type defined

Household types	Fixed voice Basket #	Fixed voice Basket Type	Fixed voice Basket Cost	Mobile Basket #	Mobile Basket Type	Mobile Basket Cost	Internet Basket #	Internet Basket Type	Internet Basket Cost	Total monthly spent in BD
Basic fixed usage	1	Basic	1.64	0		0	0		0	1.64
Single - Low usage			0	1	Low	3.51	0		0	3.51
Single - Medium usage	1	Low	6.32	1	Medium	7.36	1	Low speed	25.28	38.96
Single - High Usage	1	Low	6.32	1	High	12.39	1	High speed	60.28	78.99
Couple	1	Low	6.32	1 1	Medium Low	7.36 3.51	1	Low speed	25.28	42.47
A medium family - Low usage	1	Low	6.32	3 0	Low	10.53 0	1	Low speed	25.28	42.13
A medium family - Medium usage	1	Medium	7.98	1 2	Medium Low	7.36 7.02	1	Low speed	25.28	47.64
A medium family - High usage	1	High	18.59	1 2	High Medium	12.39 14.72	1	High speed	60.28	105.98
A large family - Low usage	1	Low	6.32	1 3	Medium Low	7.36 10.53	1	Low speed	25.28	49.49
A large family - Medium usage	1	Medium	7.98	1 1 4	High Medium Low	12.39 7.36 14.04	1	High speed	60.28	102.05
A large family - High usage	1 1	High Medium	18.59 7.98	3 1 2	High Medium Low	37.17 7.36 7.02	1 1	High speed Low speed	60.28 25.28	163.68

82. Taken together, the household types constructed and associated baskets of services cover a broad range of possible consumption patterns from low to high income and from single person and large family with several mobile phones. Collectively they may therefore be seen as representative of the population.

83. The baseline cost of each basket is based on retail offers from Batelco. TRA also intends to report the cost of each basket based on "best offer" price and hence to expand its tariff monitoring framework to include other operators. The composition of baskets may also be amended to reflect changes in usages, including increasing broadband speed.

84. By monitoring year-on-year these baskets, the impact of price changes and new offers coming into the market on the overall budget spent by consumers will be tracked.

85. TRA intends to publish at least once a year a report showing the overall cost of each basket and analysing trends for the different categories of customer group.

Question 5: Do you have any comments regarding the proposed tariff monitoring framework? Please elaborate.

Annexe 1: Main component of the service specific basket used by TRA

Table 3: Main components of the service specific baskets used by TRA[21]

OECD fixed voice baskets		
Low usage	**Medium usage**	**High usage**
50 calls per month 197 minutes per month - 76% fixed to fixed calls - 19% fixed to mobile calls - 5% international Calls of various durations made at different time of the day are included	*100 calls per month 386 minutes per month - 75% fixed to fixed calls - 23% fixed to mobile calls - 2% international Calls of various durations made at different time of the day are included*	*200 calls per month 721 minutes per month - 65% fixed to fixed calls - 31% fixed to mobile calls - 4% international Calls of various durations made at different time of the day are included*

Note: The OECD basket methodology cover only the tariff of incumbent operators

OECD Mobile baskets		
Low usage	**Medium usage**	**High usage**
30 calls per month 44 minutes per month 33 SMS per month - 22% mobile to fixed calls - 48% mobile on-net calls - 22% mobile off-net calls - 8% voice mail Calls of various durations made at different time of the day are included 15 international calls of 2 minutes are added on top	*65 calls per month 114 minutes per month 50 SMS per month - 21% mobile to fixed calls - 48% mobile on-net calls - 24% mobile off-net calls - 7% voice mail Calls of various durations made at different time of the day are included 30 international calls of 2 minutes are added on top*	*140 calls per month 246 minutes per month 55 SMS per month - 20% mobile to fixed calls - 47% mobile on-net calls - 26% mobile off-net calls - 7% voice mail Calls of various durations made at different time of the day are included 45 international calls of 2 minutes are added on top*

Note: The OECD basket methodology covers the tariffs of the two largest operators. However for the purpose of monitoring tariff, TRA will focus primarily on Batelco's tariffs

Broadband Baskets	
Low speed – high usage	**Medium speed – high usage**
***512kb/s** (Speed< 1Mb/s) Usage of 5 GB, 30 hours per month in 30 minutes sessions*	***2Mb/s** Speed (1-4 Mb/s) Usage of 5 GB, 30 hours per month in 30 minutes sessions*

Note: The OECD basket methodology cover only the fixed broadband retail offers of the incumbent operators

21 The precise composition and detailed mechanics of the basket calculation can be found in Teligen, Benchmarking Methodology for the Telecoms Price Benchmarking Study for Arab Countries, June 2008 available at http://www.tra.org.bh/en/pdf/AREGNETPriceBenchmarkingMethodology080606.pdf

Annexe 2: Consolidated list of question