



TRA CONSULTATION ON THE DETERMINATION OF DOMINANCE IN WHOLESALE
BROADBAND MARKETS

BAHRAIN TELECOMMUNICATIONS COMPANY

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EXECUTIVE SUMMARY

1. On 26 March 2009, the TRA released a consultation paper to seek Licensed Operator's views on (1) a Draft Determination of Dominance in Wholesale Broadband Markets (the "**Determination**"), (2) a Draft Access Order (the "**Order**"), (3) a Study on the Regulation of Wholesale Broadband Markets (the "**Study**"), and (4) the appropriate approach for the implementation of Local Loop Unbundling (LLU) in the Kingdom of Bahrain (the "**Implementation Approach**").
2. Batelco welcomes the opportunity to comment on the bundle of consultation papers. This submission relates to the Determination.
3. This submission addresses the substantive issues contained in the Determination and provides responses to the TRA's 16 specific questions regarding the Determination.
4. Detailed below is an executive summary of the submission:
 - Broadband access should be deregulated wherever inter-platform competition or Bitstream/WSDSL-based competition leads to a tendency towards effective competition in the broadband retail market. This is the case in Bahrain.
 - In general, the markets for broadband access at the wholesale level are not "real markets", but markets constructed solely for the purpose of regulation. This should be borne in mind when conducting a sequential "ladder of investment"-type market definition exercise.
 - In the advent of alternative network competition, the proposed market definitions fail. Such "artificial markets" will have difficulties to evolve towards a competitive outcome, as they are provider-specific, i.e. focused on the incumbent's fixed access network. Thus, the appropriateness of such narrow market definitions as proposed by the TRA is questionable in the first place as a basis for a full competitive assessment.
 - The focus of the TRA should not lie on promoting competition on these markets to the benefit of competitors, but to impose the related remedies as far as they are still necessary to achieve competition at the retail level in order to increase customer welfare.
 - The proposed market definitions are too narrow and flawed and lead to a distorted SMP designation, which cannot be endorsed. It is evident from market data, that the TRA's chosen approach simply leads to a value transfer from Batelco to alternative network operators and OLOs, which cannot be sustained in the long-term given Bahrain's limited market size. Further regulatory intervention will lead to increased unit costs, higher end-customer prices and inefficient entry of far too many "competitors" competing for too small a pie.
 - The introduction of LLU as an additional access product despite the fact that any retail market failure has already been remedied by Bitstream and WSDSL and alternative network competition is simply unjustified.

5. Batelco has set out its detailed comments below.
6. The structure of the submission is as follows:
 - Introduction
 - Responses to the TRA's 16 questions
 - Recommendations
7. This submission is made by Bahrain Telecommunications Company (Batelco) BSC (Batelco). The contact details are:

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INTRODUCTION

1. The definition and review of relevant wholesale markets is of utmost importance for guiding the transfer of sector specific price and access regulation towards the sole application of general competition law. Batelco therefore welcomes the TRA's endeavours to undertake such a vital, though only partial, exercise in relation to wholesale broadband markets, as it forms the basis for identifying competitive constraints and market failure. It is crucial that market definition is performed diligently, taking into consideration market dynamics and local variables and factors, including derived demand from retail markets and alternative integrated network operators.
2. Batelco would like to emphasize that a consistent and proportionate regulatory treatment of broadband markets is key for the development of competition, investment in and penetration of broadband and thereby an important policy issue for the Bahrain economy as a whole. To understand the challenges to regulation of LLU and wholesale broadband access subject of this consultation, it is useful to think of these two markets **not as genuine markets** but to recall that the markets have been created as remedies **for regulatory purposes only**.
3. In the European Union, these markets have been included in the EC's Recommendation on Relevant Product and Service Markets to enable NRAs to intervene in view of a perceived lack of competition at the retail level. However, it is very difficult for these two markets to evolve towards a competitive outcome by themselves, given the specific market definition, which moreover relates mainly or exclusively to one platform, the fixed access network. As a result, the focus of regulators should **not lie** on promoting competition on these markets, to the benefit of competitors but to impose the related remedies (LLU or Bitstream access) as far as they are still necessary to achieve competition at the retail level. The TRA should be reminded that there already is substantial retail broadband competition from alternative fixed wireless network providers Mena and Zain, with a combined market share in excess of 30% (noting that Batelco only holds a share of total broadband subscriber lines of 66%). These exert very significant competitive pressures on Batelco and OLOs (that procure Batelco's wholesale inputs) alike.
4. Batelco welcomes the TRA's proposed methodology of defining relevant wholesale markets by examining whether the corresponding retail market of broadband services from a fixed location is competitive. The TRA's Determination should recall in this context that the purpose of any regulation is to remedy an identified market failure at the retail level. This is also the starting point for the economic expert study for the European Commission by Cave, Valetti and Stumpf.¹ The TRA should first focus on any possible identified market failure at the retail level that causes **substantial consumer harm** absent regulation and should only then commence a sequence of market analyses.
5. Batelco suggests that an explicit assessment of the end-users situation as to choice, price, quality and innovation is introduced when the TRA analyzes markets and imposes obligations. The TRA should, in addition to identifying SMP operators and the market problem, be required to demonstrate that the policy objectives of the

¹ "A Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to ex ante Regulation", An independent report by Martin Cave, Ulrich Stumpf and Tommaso Valetti.

Telecommunications Law, in particular consumer welfare enhancement and consumer protection will not be achieved unless ex ante obligations are imposed or maintained.

6. Such emphasis on the market outcome for end-users is also in line with the development of TRA's competition guidelines that reflect the TRA's intention to stronger take into account the results of a dominant firm's behavior on consumer benefits in the context of establishing exclusionary abuses under Section 65 of the Telecommunications Law. In the field of ex-ante regulation where no proof of an abuse is required for intervention, this link to the interest of end-users is even more adequate to not sanction or impede behavior that increases end-user benefits.
7. In the context of the above, as regards the construction of a notional market for LLU, Batelco would submit that the TRA has entirely ignored "consumer harm", which it cites as one of the justifications for a notional market in the first place. *"The TRA observes that the EC has considered that [w]here there is no merchant market and where there is consumer harm, it is justifiable to construct a notional market when potential demand exists."* The TRA does not prove that there is consumer harm in the absence of a notional LLU market. If EC principles were followed, regulatory intervention could not be justified as the three-criteria-test would not be fulfilled, given that barrier to entry had already been remedied on the basis of the availability of duct access, Bitstream, WS DSL and alternative network competition.

TRA'S 16 QUESTIONS IN ASCENDING ORDER

Question 1: Do you agree with the TRA's opinion that building a new local loop is not a substitute to the LLU product?

8. Based on the TRA's analysis as presented in the Determination, Batelco does not agree that building a new local loop is not a substitute to the LLU product. As the TRA states in paragraph 50 and 51, wireless local loops have been built both by Mena (a wholesale customer of Batelco) and Zain, with Zain achieving quick and efficient national rollout within a very limited period. The argument that Zain had an advantage given its existing mobile infrastructure is not a valid argument and does not prove that wireless local loops are not a substitute to Batelco's fixed local loops. Both operators achieved a very significant retail market share within a very short period: Mena launched in the fall of 2008 and now holds a market share of 15%; Zain launched in early 2008 and holds a market share of 16%. This clearly shows that the market has found a solution and that barriers to entry are not insurmountable even in the medium term.

Question 2: Do you agree with the TRA's opinion on access to ducts? Please elaborate.

9. Given the TRA's elaborations in paragraphs 55-59 of the Determination, Batelco is not able to firmly agree with the TRA's opinion on duct access.
10. With a view to the Bahrain market situation and the number of ongoing "TTO" projects where OLOs "dig" to customer premises, access to ducts appears to be a very near substitute to LLU. In fact, there is unlikely to be a significant difference in take-up and outcome with regard to the implementation of either option. OLOs are currently "digging" where it has been found to be profitable. These are a few select, high-value (

in terms of targeted customers) geographic areas in Bahrain, but not national blanket coverage. The Bahrain market is too limited in size to achieve minimum efficient scale.

11. The argument as set out in paragraph 57, that *“even if OLOs may have the intention to deploy wired local loops, it would be limited to very small areas”* may not hold, given that most value can be achieved for both, duct access and LLU, when accessing duct/unbundling the local loop in high-density areas, where the amount of “digging” in the perimeter of the targeted customers from the accessed duct is very limited and therefore likely to allow to cover a significant number of customers on a cost-effective basis.
12. The TRA in its consultation predicts itself, that OLOs are likely to demand the unbundling of high-density areas first. Hence, the outcome of LLU or duct access in terms of number of subscribers reached is likely to be very similar, given the likely cherry-picking and cream-skimming behaviour of either targeting high-density areas or high-value customers (business segment).
13. The TRA should recall the reason for proposing to unbundle the local loop: there is little point in pursuing an increase in residential PSTN or residential broadband competition. The margins are low and there is likely to be little incentive for ANY of the current OLOs (or any new entrant – the market is overrun and over-inflated in terms of promised value) to enter on that basis, as they would not reach minimum efficient scale due to the very limited size of the market. This is clear from failed, very costly “experiments” such as CPS and the limited duct access take-up.
14. The only plausible reason for proposing LLU is really to attempt to increase competition in the broadband business market, i.e. high-value customers, which are situated in few geographic areas. Thus, LLU and duct access are likely to achieve a similar outcome, as the real effect of LLU (and as can be seen from European LLU uptake) is going to be “targeted point competition” in a few geographic areas, mainly targeting high-value business customers, and not broad national all-encompassing competition. This will exacerbate the problem of leaving Batelco with non-profitable low margin customers, given its legacy market position. The TRA’s LLU policy therefore is likely to lead to a socially sub-optimal competitive outcome and a two-tier information society, where villages such as Jaw, Askar, Dukistan, Sadad etc...are unlikely to benefit and are left with low-speed broadband.
15. As the TRA is aware, Batelco has been offering duct access since the first Reference Access Offer in 2003. Thus, duct access should be part of the same product market and should be regarded as a substitute to LLU. LLU is therefore unnecessary as an additional wholesale access product.

Question 3: Do you agree with the TRA’s opinion to exclude from the relevant market wholesale access to the existing NFWS local loops? Please elaborate.

16. Whilst Batelco shares the TRA’s view that access to existing NFWS local loops is currently not offered on a “merchant market”, it does not agree that NFWS local loops should be excluded from the relevant market.

17. Cave, Stumpf and Valetti clearly and expressly state in “A Review of certain markets included in the Commission’s Recommendation on Relevant Markets subject to ex ante Regulation” (July 2006) that “[...] where a new access technology replicates or replaces, but does not extend the scope of existing loops, it should be **included in the definition.**” (Emphasis added). NFWS local loops should therefore be included in the relevant market. Also, Batelco emphasizes that because one type of broadband access (Bitstream) is already regulated and the other, namely Wimax in Bahrain, is not, the search for any evidence of direct supply-side substitutability between these different technology platforms may be **futile**. For as long as access to a technological platform is not regulated and mandatory, there are likely to be few applicants for this service and, hence, there will be no evidence or realistic prospect of wholesale customers switching between the two platforms.
18. Batelco notes that the TRA’s consideration of wireless and the fact that there are already two NFWS operators in Bahrain with full national coverage and significant market shares means that wireless is an important issue in Bahrain, which Batelco respectfully submits has not been appropriately considered by TRA in this consultation paper. Both, Mena and Zain have a joint market share in excess of 30% (16% Zain and 15% Mena, respectively) based on most up-to-date subscriber figures provided by the TRA on 29 March 2009 at the new brand launch at the Ritz-Carlton (for Mena) and Batelco’s own estimates of other competitors and total market size (see Figure 1 below).
19. [•] The TRA does not sufficiently examine the relevance of self-supply where wholesale supply substitution may be possible and where retail demand substitution matters. The TRA’s analysis is consequently flawed. Where alternative operators self-supply inputs, they may also be able to market those inputs as wholesale services to third parties. Both Mena and Zain have ubiquitous networks with sufficient capacity to absorb additional traffic of wholesale customers on their networks. Thus, the conditions for supply-side substitutability would be fulfilled and the rival’s firms’ self-provided inputs should be included in the same relevant wholesale market together with Batelco’s wholesale offerings.
20. As regards the retail demand side, Batelco does not agree with the TRA’s view regarding the absence of a sufficient indirect pricing constraint as set out in paragraph 66 of the Determination. Where retail demand substitution matters, the TRA should take into consideration self-supply of Mena and Zain. Retail demand substitution clearly matters in Bahrain, as evidenced by substantial broadband customer loss substituting to Mena and Zain both at the retail and wholesale level.
21. As stated by Cave, Stumpf and Valetti (July 2006): “If retail customers substitute the retail product based on the self-supplied input for the retail product based on the wholesale input, there is a corresponding effect on the upstream input level: The self-supplied input replaces the wholesale input. [...] If the indirect pricing constraint from the retail demand substitution is found to be strong enough, self-supply of competitors and the incumbent should be included in the relevant wholesale market.” The TRA’s analysis in paragraph 66 is incomplete and not based on a proper critical loss analysis, which should compare the hypothetical critical loss to the actual loss obtained from customer churn statistics.

22. The TRA should take into account that the current actual customer loss to Batelco is substantial. As shown in Graph 1, the actual monthly loss of residential broadband customers is very significant and lies between [•] and [•] with an increasing trend. This loss occurs in the absence of any 5-10% price increase. Moreover, Graph 2 below shows that Batelco's new residential broadband customer acquisition [•] This shows that Mena's and Zain's effect on the market is substantial and has been underestimated by the TRA in its consultation.

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23. Furthermore, OLOs (e.g. Lightspeed and 2Connect) purchasing Batelco's wholesale inputs are also increasingly at risk of losing retail customers to Mena and Zain. Although the price sensitivity of OLOs' retail customers may be a little lower, given the already lower OLO price points in comparison to Batelco and the contractual customer lock-in of at least 12 months, OLOs are likely to experience an increased retail customer loss once contracts come up for renewal. Over the last 16 months, Bitstream competition has lost [•] of subscribers and WS DSL competition has lost [•] of subscribers². The trend is likely to increase. The graph below shows retail customer loss by Batelco's wholesale customers, expressed in number of ceased orders: [graph deleted]

24. [•] Given the above, the indirect pricing constraint is clearly significant and NFWS local loops (and self-supply thereof) should be part of the relevant market.

25. In any case, Batelco considers that growth in use and uptake of wireless technologies in Bahrain indicates that regulation of the LLU product is an inappropriate and unnecessary step in today's telecommunications market in Bahrain. It is an inappropriate regulatory response to a legacy issue that is no longer relevant in today's telecommunications markets. Communications markets in leading countries are now focussed on NGNs and LLU products are becoming less relevant. Both wireless and fibre form a large part of this NGN focus.

26. As such, to exclude wireless from a consideration of communications markets and to focus on regulation of fixed LLU products is to regulate for an issue that is no longer relevant in today's telecommunications and broadband markets.

27. The TRA should consider wireless technologies in a forward-looking sense that is consistent with the growing prominence of wireless and Long Term Evolution (LTE), a concept that is growing in prominence and regards the compatibility of future mobile technology solutions as a result of the Digital Dividend.

28. Ofcom have recently analysed the growth of wireless technologies in their report entitled "Application of spectrum liberalisation and trading to the mobile sector: a further consultation" (13 February 2009). Ofcom considers that over the last 12 months these next generation wireless technologies have continued to develop and grow in importance.

² The number of subscriber losses has been approximated by the number of cessations.

29. Ireland considers that the provision of wireless broadband services is essential for the future of Ireland as a modern competitive society as it will:
- increase the level of competition between platforms;
 - improve rural broadband coverage; and
 - deliver next generation broadband services across Ireland.³
30. Batelco submits that the lack of consideration given to wireless technologies in this consultation paper may actually hold back the development of the Bahraini telecommunications market as it will be focussed on legacy fixed issues as opposed to the current and relevant wireless and next generation issues.
31. In fact, Batelco submits that the TRA should consider several technologies in their definition of markets in order for Bahrain to achieve inter-platform competition. This was the primary goal of the TRA when the access regulation was designed. This type of competition has been acknowledged as the form of competition that has the greatest and most sustainable long-term benefit for society. It has been argued that a “greater diversity of access platforms provides maximal opportunities for innovation and product differentiation”. Ireland has stated “while wholesale broadband products (Bitstream and LLU) are available on a regulated basis, we see inter-platform competition as better in the long term, because it creates better innovation and should require less regulatory intervention”.⁴

Question 4: Do you agree with the TRA’s opinion to exclude from the relevant market wholesale access to the existing fibre local loops? Please elaborate.

32. In the absence of a proper public consultation about the appropriate regulatory treatment of NGA, Batelco is unable to agree with the TRA’s conclusion that access to existing fibre local loops should be excluded from the relevant market.
33. Batelco has invested in and rolled out a core NGN network, but has had to hold back investing in access fibre due to the TRA’s extremely vague and uncertain regulatory stance. Given that fibre is an increasingly important issue in Bahrain which has not been appropriately considered by the TRA (other than as part of the New Developments consultation and the issue being “dodged” given the TRA’s proposed approach to geographical market definition), Batelco would ask the TRA to publicly consult on NGA first, before defining an inappropriate market.
34. Whilst the footprint of existing fibre local loops in Bahrain may be limited at the present point in time, it is inevitable that this footprint will not remain limited for long. The Malaysian Regulator recently stated, “*the deployment of fibre technologies in the access network is inevitable in order to enable increased broadband penetration*”.⁵ It is well established that increased broadband penetration and services enables the

³ ComReg, *Regulatory Principles applied in Ireland to successfully promote wireless broadband access*, at page 1.

⁴ ComReg, *Regulatory Principles applied in Ireland to successfully promote wireless broadband access*, at page 1.

⁵ SKMM, *Public Inquiry Paper: Review of Access List and Mandatory Standards on Access*, 25 September 2008, at page 184.

development of an advanced, information-based society, which in turn leads to increased productivity for a nation.

35. The benefits of access to broadband is reflected in the WSIS Declaration of Principles, which highlights the social, economic and overall well-being of communities and individuals that can be derived from broadband availability:

“A well-developed information and communications network infrastructure and applications, adapted to regional, national and local conditions, easily-accessible and affordable, and making greater use of broadband and other innovative technologies where possible, can accelerate the social and economic progress of countries, and the well-being of all individuals, communities and people.”⁶

36. To ensure that the TRA meets the objectives of the National Telecommunications Plan including to:

- ensure that Bahrain continues to play a leading role in the Gulf Region as an attractive option for living, working and investing, the TRA will wish to grow broadband penetration in Bahrain. As such, it is vital that the TRA considers the growth and use of fibre in NGNs.

37. Batelco considers that this growth in take-up of fibre in next generation access products in Bahrain and around the world has lead regulators to change their approach to regulation. Ofcom have recently stated in its NGN consultation paper that it is not acceptable simply to roll forward regulatory solutions from the current to the future environment. Ofcom will not simply apply legacy regulation to the new NGN environment. Regulation of the LLU product is an inappropriate and unnecessary step in today’s telecommunications market in Bahrain. It is an inappropriate regulatory response to a legacy issue that is becoming less relevant in today’s telecommunications market. As stated above, telecommunications markets in leading countries are focussed on next generation access and not on LLU products. Both fibre and wireless form a large part of this NGN focus.

38. Finally, as in question 3, Batelco also considers that the lack of consideration given to fibre in this consultation paper may actually hold back the development of the Bahraini telecommunications market as it will be focussed on legacy fixed issues as opposed to the current and relevant fibre and next generation issues.

Question 5: Do you agree with the TRA’s opinion that LLU and Bitstream (and therefore WSDSL product) are in different relevant markets? Please elaborate.

39. Batelco does not agree with the TRA that LLU and Bitstream are in separate markets.
40. To recap, the market for LLU and the market for wholesale broadband access (which Bitstream and Wholesale DSL (“WS DSL”) are part of) are not genuine markets in the classical sense but are markets, which have been artificially created to remedy an alleged market failure at the corresponding retail level. This gives rise to the question

⁶ World Summit on the Information Society, *Declaration of Principles Building the Information Society: a global challenge in the new Millennium*, 12 December 2003, at para 22.

how both markets relate to one another, especially if both wholesale products LLU and Bitstream (and WS DSL) are available on the market at the same time.

41. According to best practice market definition methodology such as the EU, the methodology employed is to identify the least replicable element of the value chain, i.e. the element that a competitor will find hardest to construct, and establish a corresponding market definition. Where that market satisfies the three criteria test of (1) high non-transitory barriers to entry, (2) not tending over time towards effective competition, and (3) insufficiency of competition law by itself to deal with the market failure (without ex ante regulation), it is included in the set of ex ante regulated markets. The process is repeated for the next least replicable component of the chain, in addition to the least replicable element already included. That market definition, once established, is tested for SMP on the hypothesis that the previous market is subject to remedies.
42. The questions “Is Bitstream a substitute to LLU” or “Do you agree with the TRA’s opinion that LLU and Bitstream (and therefore Wholesale DSL product) are in different relevant markets?” as posed by the TRA are not complete and not in adherence with the three-criteria-test, because they ignore the fact that Bitstream already constitutes a remedy to an identified market failure, namely retail broadband competition. In this regard, Batelco would remind the TRA that in 2004 the TRA accepted Bitstream as an **alternative** to LLU. Bitstream was brought to the market only in 2007 due to lack of interest by OLOs prior to 2007. The Bitstream product that was launched in 2007 was designed by the TRA, but was not appropriate in the Bahrain environment and not “in sync” with OLOs’ requirements. Batelco has since developed a new improved Bitstream product based on the feedback from OLOs and is ready to offer this product in exchange for LLU.
43. The market for Bitstream generally does not constitute a separate market in addition to LLU: with reference to supply-side substitution – while consistent with competition law methodology – separate markets for LLU and Bitstream is in fact not compatible with the principles enshrined in the three-criteria-test when following best practice. The provision to supply Bitstream (and WS DSL) is supposed to remedy a certain market failure and to allow access to an otherwise closed market. If Bitstream is available and competitors enter the market by means of Bitstream, the market failure regarding barriers to entry is remedied. Also, when the access regulation was designed (with the help of Martin Cave), particular focus and premise was given to the NFWS licenses to provide wireless local loop competition. This strategy has been obviously successful and should not be ignored.
44. Therefore, LLU and Bitstream are not in separate but interdependent markets. In cases where LLU is not available (as is currently the case in Bahrain), Bitstream (and WS DSL) might be considered as an alternative. The markets need to be defined accordingly. Moreover, when arguing for the need of an additional LLU remedy in addition to existing Bitstream (and WS DSL) obligations, it needs to be shown that the competitive situation on the corresponding retail markets give rise to the assumption that market failure still exists. A closer look at the competitive situation on the Bahrain broadband markets shows that this is clearly not the case. During the last 5 months (in particular since Mena’s launch) Batelco has lost between [•] and [•] of its residential

broadband customer base each month to alternative network providers Mena and Zain. The percentage trend is increasing month-on-month. This substantial retail competition is entirely ignored by the TRA.

45. Furthermore, OLOs who purchase Batelco's WS DSL and Bitstream products have been successfully increasing their subscriber share, as shown in Graph 4 below.

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46. In addition, Batelco considers that it is important to analyse countries that have recently considered regulation of LLU and Bitstream and not countries who considered it almost two decades ago (like the European Union). This will assist to ensure that any regulation applied is relevant in today's telecommunications environment. The countries that have recently considered regulation of both LLU and Bitstream have acknowledged the importance of being able to examine and learn from the experience of other countries regulation of LLU and Bitstream. We consider that Bahrain should do the same.
47. Malaysia and New Zealand are two countries that recently considered regulation of LLU and Bitstream. Both of these countries considered LLU and Bitstream together and concluded that they should not initially be mandated together at the same time. Both countries mandated Bitstream first (and not LLU) as a remedy for a particular market.
48. In New Zealand, the Commerce Commission was required to consider whether or not "access to unbundled elements of Telecom's local loop network" should be designated or specified (i.e. regulated) services. In their consideration four different types of unbundling were considered together (LLU, Bitstream, line sharing and fixed PDN unbundling) and ultimately the Commission decided to designate an internet grade ADSL Bitstream service and not the LLU service. Batelco notes that in 2006 this decision was reviewed to include an LLU service. However, at that time Batelco highlights that Bitstream and LLU were still considered together in the same market.
49. Jordan also mandated cost-based Bitstream unbundling instead of LLU. Jordan mandated this in their Interconnection Instructions TRC Board Decision No. (2-1/2005) Date (5/1/2005). In 2008, it did a review of the Interconnection Instructions. Within this review the TRC stated that "over the last 3 years many of the difficulties associated with the roll-out of LLU that were experienced in countries with regulation that required its introduction have largely been overcome". We note that despite experiencing these benefits, Jordan has decided recently to mandate LLU in addition to Bitstream.
50. Similarly, Malaysia also consider LLU and Bitstream to be part of the same analysis or market. In Malaysia they are considered in the Access List under the market for the supply of retail broadband in a service entitled "Access to Network Elements". Whilst both Bitstream and LLU are on the Access List only Bitstream is activated. This means that only Bitstream is mandated in Malaysia. In a recent review of the Access List, Malaysia decided to continue to mandate only Bitstream.

51. The importance of the Malaysian and New Zealand examples is that given technology developments and the rise of broadband both considered that LLU and Bitstream were part of the same market.
52. As such, we urge the TRA to reconsider their view and propose that LLU and Bitstream are in the same market.

Question 6: Do you agree with the TRA's position that self-provision by Batelco should be included in the relevant market? Please elaborate.

53. Self-supply by alternative operators has a significant effect on the pricing power of the established operator and constitutes a potent force of countervailing buying power. The TRA currently only considers that self-supply of Batelco should be included in the relevant market. Such an approach to self-supply in the context of wholesale market definition seems overly simplified, dogmatic and unjustified in view of the purpose of ex-ante regulation to promote competition for the end-consumer. If two services relying on different platforms are in the same market, then normally wholesale inputs to these services should also fall in the same market. Worryingly, such an approach confers a sort of SMP immunity to alternative operators and biases the assessment of SMP.
54. Thus, as a general rule, self supply should be considered when analysing markets. In this respect, Batelco does not think that it is analytically correct to consider self-supply by alternative operators only when this operator offers these inputs on the merchant market. This would lead to market delineation, which is too narrow.
55. The TRA refers to the European Commission's Recommendation in support of its proposition, however does not present the full argument that the EC makes in relation to self-supply by competitors. In cases where competitors provide the same self-supply services as the incumbent, the Commission suggests analysing whether they have enough capacity and how likely competitors are to provide the services quickly to third parties. No evidence is provided. The assumption that new entrants face severe obstacles for supplying the inputs on the merchant market, like capacity constraints, lack of ubiquity of the network and the likelihood to enter the market quickly is questionable. After all investments of new entrants in own facilities are rather new, state of the art investments.
56. In this context, it is worth noting that in a study carried out for the Commission, Hogan & Hartson and Analysys⁷ raise two important reservations against the EC's concept. Firstly, why consider how likely competitors are to enter the market, but not incumbents? Secondly, is it really appropriate to take the view that competitors generally do not have enough spare capacity to quickly provide a commercial product, whereas the incumbent does? Subject to the assessment in each individual case, competitors' self-provisioning should be included in the market definition to take account of all competitive constraints on the largest operator. Otherwise, regulation risks to be upheld⁸ even in markets where the incumbent holds insignificant market share such as in many EU markets for transit services - because the market definition is de facto provider-specific.

⁷ Hogan & Hartson and Analysys, Preparing the next steps in regulation of electronic communications – A contribution to the review of the electronic communications regulatory framework, Final Report for the European Commission, p.112

⁸ Hogan & Hartson and Analysys, p.113

57. The most debated issue of National Regulatory Framework implementation in Europe in the context of self-supply has been the question of the treatment of existing alternative broadband technologies in the context of market 12 (market 6 of the draft Recommendation).
58. This was the issue at stake in the analysis of lower quality Bitstream in the Netherlands⁹. In such a case of widespread infrastructure-based competition (in this case supplemented by the availability of LLU offers), an identification of a wholesale broadband market susceptible to regulation is not justified, as the three criteria for applying regulation are not fulfilled. If, as OPTA (the Dutch Regulator) does not apply the three criteria at national level, it has to take into account pricing constraints by the alternative platform at retail level in its market analysis. Otherwise, additional regulation would apply despite an already competitive outcome for the end-user absent regulation - a clearly disproportionate result.
59. Hogan & Hartson and Analysys rightly identify a “regulatory circularity” in the definition of market 12, which according to the Recommendation includes “*other wholesale access provided over other infrastructures, if and when they offer facilities equivalent to bit-stream access*”. Batelco supports the study’s findings that because one type of broadband access (Bitstream) is already regulated and the other, namely Wimax in Bahrain, is not, the search for any evidence of direct supply-side substitutability between these different technology platforms may be **futile**. For as long as access to a technological platform is not regulated and mandatory, there are likely to be few applicants for this service and, hence, there will be no evidence or realistic prospect of wholesale customer switching between the two platforms.
60. Instead of constructing a lack of market power via indirect pricing constraints on a technology-specific wholesale market ‘created’ by regulation as the EC suggests (and as applied by the TRA), Batelco proposes to – based on an analysis of the retail market situation – include the alternative infrastructure providers (Wimax) in the assessment. Competitive pressures on the retail market should be taken into account in market analysis to avoid an SMP-designation at wholesale level despite a satisfying outcome for the end-user because of competition at the retail level.
61. Otherwise a situation could arise (as is currently the case in Bahrain) in which technologies by alternative operators attain substantial market shares (Mena and Zain have a joint market share in excess of 30%) or even SMP without being regulated, while incumbents using established technologies remain subject to *ex ante* obligations as the relevant wholesale market definition remains unchanged¹⁰.
62. The TRA needs to rethink its current regulatory approach at the retail and wholesale level as regards the wholesale broadband market and alternative platforms. Clearly, in case one platform is dominant on the retail broadband market, an access regulation of the other platform competing at retail level would lose all justification.
63. Given the above, Batelco is of the view that the only approach that leads to a correct delineation of markets and the identification of all competitive constraints is the inclusion of both the self-supply of the incumbent and the self-supply of alternative operators.

⁹ Commission comments pursuant to Article 7(3) of Directive 2002/21/EC; CASE NL/2005/0281: Wholesale broadband access in the Netherlands, SG-Greffe (2005) D/206588

¹⁰ Hogan & Hartson and Analysys, p.113

Question 7: Do you agree with the TRA's position on the national geographic scope of the relevant market, considering the size of the country and of candidate geographic markets? Please elaborate.

64. While Batelco is cognisant of the size of Bahrain and the size of the telecommunications industry, it does not consider that the geographic dimension of the market is national and Batelco considers that the TRA's approach is contrary to the approach adopted by competition and regulatory authorities in other jurisdictions where no such presumption is made. Different geographical market conditions have to be reflected in regulatory practice.
65. The TRA should in this context correctly apply competition law methodology in the definition of sub-national markets to better focus regulation. Continuing to define national markets even though conditions of demand and supply may be different in the advent of LLU, new developments, and the actual or potential reach of alternative networks distorts the market and competitive outcomes.
66. Where the application of competition law criteria for market definition would lead to sub-national markets but operators are still designated as SMP on the basis of a national market, this limits them in their ability to compete on price, quality and innovation, in turn reducing the benefits the consumer can derive from competition. In the Commission economic expert study Prof. Cave, Stumpf and Valetti come to the conclusion that *"..where differential network build-out creates clear and persistent divisions in a Member State, so that one area is likely to exhibit SMP in a market, while another does not, there is a good case for reflecting this difference by defining separate geographic markets."*¹¹
67. For example, an assumption that the market is national will mean that a Licensed Operator with network infrastructure in one or more of the new property developments can engage in anti-competitive conduct without falling foul of section 65 as it operates only in some areas and not nationally. The assumption may also render the Competition Guidelines obsolete as additional fixed line networks in new property developments are launched. Given that the TRA is attempting to encourage open access policies in these new developments, there is a significant likelihood that local markets will develop.
68. Batelco notes that Amwaj Island was viewed to constitute a separate geographic area and not subject to regulation in the TRA's 2006 wholesale determination. As such, the TRA has already found that separate geographic markets exist. Applying the TRA's own practice, there is no reason for a presumption of a national market.
69. Batelco also notes that the existence, or the introduction, of ex ante regulation may in itself alter the competitive conditions from one area to the next. For example:
 - The Australian Competition and Consumer Commission (ACCC) has generally adopted a national geographic dimension in relation to telecommunications markets but its decision to impose access obligations on the unbundled local loop and line sharing services in 1999 allowed competitors to install DSLAMs on the incumbent's exchanges to provide retail broadband and voice services. As this type of competition has spread unevenly across Australia, the ACCC

¹¹ Cave, Stumpf, Valetti, p.30

has had to undertake local market analyses in more recent regulatory decisions.¹² In the wake of the envisaged introduction of LLU in selected exchanges, the development of local markets is likely to be accelerated.

- In Germany, the Bundesnetzagentur is currently proposing geographic regionalisation of Bitstream markets, as local competition has developed over time in specific geographic areas. Thus, a presumption of national markets at the outset would be detrimental to this analysis. This illustrates regulatory practice and thinking to account for competition developing at different rates in different areas, with the need to examine the ways in which these particular markets have changed over time.

70. These examples demonstrate that regulators have turned away from mere presumptions of geographic markets. A focus on the specific market and an accurate market definition is now clearly favoured and is more consistent with the correct application of economic concepts.

71. Batelco submits that the importance of a proper analysis of geographic markets in framing assessments of anti-competitive conduct cannot be understated. As early as the United Brands decision in 1978, the European Court of Justice has recognised the importance of assessing competitive conditions on a case-by-case basis:

“...with reference to a clearly defined geographic area in which [the product] is marketed and where the conditions are sufficiently homogenous for the effect of the economic power of the undertaking to be concerned to be able to be evaluated”.¹³

72. This decision demonstrates the need for a proper assessment of competitive conditions before identifying a geographic market. It does not support a regulator adopting any presumptions about the geographic nature of a market.

73. In Europe and other jurisdictions such as Singapore, Hong Kong, Australia and Canada, competition and regulatory authorities analyse geographic markets through the application of first principles. Analysis is not undertaken by reference to the size of a particular industry in an economy, but by reference to the geographic scope for substitution.

74. As with product market definition, the analysis typically commences with a relatively narrow area, or the focal area, followed by an application of the SSNIP test, which looks at whether a small but significant non-transitory increase in the price of a product would lead buyers to switcher to suppliers in other areas.¹⁴ Supply-side issues may

¹² ACCC, *Fixed Services Review: Declaration inquiry for the ULLS, LLS, PSTN OA, PSTN TA, LCS and WLR – Discussion Paper*, November 2008, at page 34.

¹³ Case 27/76, *United Brands Company v Commission* [1978] ECR 207.

¹⁴ OFT UK, *Market definition – understanding competition law*, 2004, at [4.2]; Competition Commission of Singapore, *CCS Guidelines on Market Definition*, at [4.3]; EC, Commission Notice on the definition of relevant market for the purposes of Community competition law 97/C372/03, 9 December 1997, at [28]-[29]; OFTA, *Mergers and Acquisitions in Hong Kong Telecommunications Markets*, at 3.12.

also be relevant in delineating the geographic market as suppliers in other areas may face technical and other issues in supplying their products to the geographic market.¹⁵

75. Batelco recognises that there may be difficulties associated with applying the SSNIP test in defining geographic telecommunications markets as it does seem unlikely that a subscriber at one location would move to another location in the event of a SSNIP. However, there are alternative approaches to identifying the geographic market. For example, it is possible to define market definition by looking at the location of suppliers rather than buyers, the location of the service (including the area covered by the network) and the existence of legal and regulatory instruments which may have the effect of altering competitive conditions only in certain areas.¹⁶

76. The consideration of geographic market boundaries in the regulation of telecommunications markets cannot be considered too recent as to provide no reliable precedents on which the TRA can rely in identifying geographic markets in Bahrain. The US Department of Justice in its anti-monopolization suit against AT&T in 1984 examined the AT&T monopoly in local exchange areas¹⁷ and in more recent years has identified local geographic markets in respect of mobile wireless services.¹⁸ In reviewing the merger between Olivetti, Mannesmann and Infostrada in 1998, the EC stated that:

“The scope of the geographical market in telecommunications is determined:

- a) by the extent and coverage of the network and the customers that can economically be reached and whose demands may be met; and
- b) the legal and regulatory system and the right to provide a service.”

77. The ERG itself does not explicitly support adopting an assumption without first conducting a preliminary analysis based on evidence. Its common position is that:

“...in a first step NRAs will have to determine whether there exists evidence of local geographic markets or whether there is evidence which suggests a national market exists.”¹⁹

78. The ERG then outlines particular conditions where a detailed geographic analysis may not be required due to the presence of certain factors and sets out detailed criteria for evaluating the homogeneity of competitive conditions.

79. The TRA has approached market definition from a presumption of a national market. Further, the TRA has not conducted a full analysis if it finds that service coverage is national, pricing is national, and that there are no competitors with significant market share at a local level. Batelco does not disagree with the TRA on this.

¹⁵ EC, Commission Notice on the definition of relevant market for the purposes of Community competition law 97/C372/03, 9 December 1997, at 30.

¹⁶ EC, Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, 2002/C 165/03, at 59.

¹⁷ *United States v. AT&T*, 552 F.Supp 131 (1982).

¹⁸ See for example Complaint in *US et al v Cingular Wireless Corporation, SBC Communications, et al*, filed 10/25/04.

¹⁹ European Regulators Group, *ERG Common Position on Geographic Aspects of Market Analysis (definition and remedies)*, September 2008, at page 9.

80. Additionally, we note that if the presumption of the national market remains then the TRA must consider the presence of other alternative fibre and wireless networks.

Question 8: Do you agree with TRA's definition of the wholesale physical network infrastructure access market? Please elaborate.

81. No. Given the above arguments concerning the substitutability of LLU and Bitstream as well as the inclusion of fixed wireless local loops, Batelco does not agree with the TRA's definition of physical network infrastructure access market. The TRA's market definition is too narrow, conceptually flawed and will lead to a distorted dominance determination.

Question 9: Do you agree with the TRA's inclusion of NFWS access in the wholesale broadband access market? Please elaborate.

82. Yes. Given the significant pricing constraints at the retail level, NFWS should be included in the relevant market. As detailed in question 3, Batelco considers that the TRA should give attention and prominence to competing platforms when regulating broadband access markets. An ongoing analysis of wireless products and technologies will reveal that regulation of the LLU is becoming an outdated approach and is not appropriate or necessary in Bahrain's current or future telecommunications market. Bitstream will suffice to provide access to those who need it until wireless and other fibre and NGN technologies reach their full potential.

Question 10: Do you agree with the TRA's analysis that self-provision by Batelco should be included in the wholesale broadband access market? Please elaborate.

83. As detailed in the response to question 6, Batelco is of the view that the only approach that leads to a correct delineation of markets and the identification of all competitive constraints is the inclusion of both the self-supply of the incumbent and the self-supply of alternative operators.

84. Wherever alternative networks provide retail broadband services over their own networks, particularly where they have a strong presence in a national market, it is only logical that their self-supplied services (equivalent self-supplied services) are taken into consideration at market definition stage. Otherwise, this market is simply designed to maintain the status quo, where the odds are heavily stacked against 'traditional' fixed line operators and in favour of other network providers, irrespective of their influence and share in the market.

85. Please refer to Batelco's response to Question 6 above.

Question 11: Do you agree with the TRA's conclusion that the LLU product should not be included in the wholesale broadband access market? Please elaborate.

86. No. Batelco does not agree with the TRA's conclusion. Please refer to Batelco's response to Question 5.

Question 12: Do you agree with the TRA's analysis that the Wholesale DSL product is a substitute to the Bitstream product? Please elaborate.

87. Batelco agrees with the TRA's analysis that WS DSL and Bitstream should be treated as substitutes in the specific Bahrain case, and should therefore fall into the same relevant product market.

Question13: Do you agree with the TRA's opinion that the geographic dimension of the market is national? Please elaborate.

88. No, as detailed in response to Question 7.

Question 14: Do you agree with the TRA's definition of the wholesale broadband access market? Please elaborate.

89. No. Given Batelco's disagreement with a number of aspects concerning the components of this market, it cannot agree to the proposed market definition in all of its aspects as detailed in the above responses. Following careful consideration of the issues detailed above, Batelco would greet an amended market definition. As it stands, the market is defined too narrowly to take Bahrain's telecommunications market into the future and to ensure sustainable growth.

90. Generally, it must be kept in mind that, more often than not, the wholesale broadband access market shares of fixed line operators are a direct result of regulatory obligations promulgated in the past mandating that they provide such services. That alternative networks do not have similar obligations, notwithstanding the reach of their networks and services, allows them to have full control of the value chain of broadband services provided over their own networks.

91. In the case of Bahrain, Mena and Zain have achieved a joint market share in excess of 30% in a very short space of time during which Batelco has been unable, given the TRA's straitjacket approach to regulation (both at the retail and wholesale level) to introduce better high-speed broadband services at lower prices. In the case of Malta for example, this has resulted in the cable network operator gaining almost 50% of the retail broadband market, giving it an obvious incentive to provide wholesale broadband access services only selectively.

92. The market definition as put forward by the TRA was created to regulate access on one particular type of platform, namely of the incumbent fixed access operator. This approach will perpetuate a vicious cycle where a fixed line operator can be found to have SMP because it provides a service it is obliged by regulation to supply, whereas an alternative network operator, even if a strong player in the broadband market, is incentivised not to provide wholesale access to third parties so as not to be susceptible to regulation. A national geographic market presumption would exacerbate this, protect competitors, and foster inefficient entry.

Question 15: Do you agree with the TRA's analysis that Batelco is dominant in the wholesale physical infrastructure network access market in the Kingdom of Bahrain? Please elaborate.

93. No. Given the above arguments and disagreement with the proposed very narrow market definition and national scope of the market, Batelco cannot agree to its dominance in the wholesale physical infrastructure network access market in the Kingdom of Bahrain. The market definition is incomplete and excludes at least two

major alternative infrastructure providers as well as their self-supply. The TRA should have given consideration to NGN aspects and a broader consideration to wireless and fibre.

94. As Batelco does not agree with the market definition, it also does not agree that Batelco is dominant. If the TRA considers the additional elements that Batelco is proposing (and that are vital to the development of Bahrain's telecommunications market) then Batelco submits that the TRA's analysis and conclusion on the dominance of Batelco will be different.

Question 16: Do you agree with the TRA's analysis that Batelco is dominant in the wholesale broadband access market in the Kingdom of Bahrain? Please elaborate.

95. No. Given the above concerns, Batelco cannot agree with the TRA's analysis of Batelco's dominance in the wholesale broadband access market. Most recent market share analysis shows that Batelco only holds a market share of 66% with strong competition coming from Mena and Zain, who together hold in excess of 30%, tendency increasing.

96. Any analysis of a wholesale broadband access market should rely on the derived demand at the retail level, i.e. what products end-users can receive and what products end-users actually want and how they switch between alternatives. This is a well established concept. In the UK, Ofcom carried out a review of the wholesale broadband access market and in order to carry out the review, they conducted extensive consumer research which aimed to:

- understand the choices and decision making of consumers regarding their method of connecting to the internet (including the importance of various features of internet services, barriers to switching services and how consumer choices may change in the future); and
- assess potential switching behaviour if consumers were faced with SSNIP to inform market definition.²⁰

97. Amongst other things, Batelco does not consider that the TRA has adequately considered this first limb when designating Batelco as dominant in the wholesale broadband access market. It is important to have a full understanding of what consumers can access as well as their views about connecting to the internet. Batelco considers that at this stage of Bahrain's broadband development, it is vital to undertake such a study before considering mandating LLU in the market.

98. Without this consumer information, Batelco submits that the TRA is unable to satisfactorily determine that Batelco is dominant in the wholesale broadband access market.

RECOMMENDATION

99. Batelco recommends that the TRA:

²⁰ Ofcom, *Consumer research to inform market definition and market power assessments in review of the wholesale broadband access markets 2006/07*, 21 November 2006.

- Revise its approach to wholesale market definition to avoid circularity and the value-destruction of Batelco;
- Revise its dominance determination and take into consideration alternative network providers;
- Revise and improve the current Bitstream product; and
- Consider a policy that achieves a socially optimal outcome, that focuses on the end-consumer and the increase of customer welfare above the protection of competitors.